Facilitating Social Learning in Sustainable Waste Management: Case study of NGOs involvement in Selangor, Malaysia

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Abstract

Sustainable waste management (SWM) requires the participation of everyone. NGOs initiate various sustainable waste management activities in support of the environment. While reports on NGOs contributions to the society and the environment are extensive, their contribution from a social learning perspective is sparse. This paper fills this gap by exploring and evaluating qualitative data obtained from two case studies and framing the evidence through five strands of themes integral to facilitate social learning. The study found that amidst successful implementation of activities, the NGOs in the case study faced several constraints in facilitating social learning towards sustainable waste management.

Keywords: Social learning; sustainable waste management; NGO

1. Introduction

Non-governmental organizations often act as agents of social change. However, little is known about how they facilitate this change (Kim 2012). NGOs create an impact by disseminating information, implementing public services and advocating for environmental reforms (Anheier 2007; Nitivattananon and Gabinete 2012). These often involve collaborative processes with other actors: a key concept in social...
learning theories. One of NGOs’ roles is to support and integrate social and environmental policies in waste management governance (Davies 2007; Keen et al. 2005). However, NGOs’ involvement is often marginalized in waste management despite the recognition by many governments that they have a role in sustainable waste management relevant perception often emphasized in the waste management and development literature is that waste management is an institutional responsibility distinct from a social responsibility. In the context of sustainable waste management, several authors suggest that NGOs’ role varies (Agamuthu et al. 2009). Generally, empirical evidence of their involvement in sustainable waste management in the developing countries is sparse (Mbuligwe 2012). However, studies of this nature are growing. Currently, NGOs’ involvement includes providing technical expertise to municipalities, collecting waste for deprived communities and initiating recycling projects (Colon and Fawcett 2006). In addition, they mobilize public awareness and education campaigns (Shekdar 2009). Despite these efforts, NGOs’ role in sustainable waste management is largely undefined (Davies 2007). This study aims to help fill the gap by providing insights into the processes of sustainable waste management activities implementation by two urban based NGOs. The two NGOs highlighted are pioneers in improving public education about sustainable waste management and recycling awareness in Selangor (JICA 2006). The evaluation considers elements proposed within the social learning perspective: reflections, forms of participation, collaboration and networking.

2. Social learning perspectives

Social learning refers to the learning of individuals in a social environment by observation and imitation of others (Bandura 1977). Bull et al. (2008) interpret this as cognitive enhancement from mere technical competence to a deeper understanding of knowledge acquisition implications and moral judgment development. Other authors contend that all types of learning have a social construct as humans often interact with others (Ahmad et al. 2013). Elements constituting ‘social learning’ may affect a group or network that is open to new ideas if the learning is continuous (Keen et al. 2005). Learning about the environment within a social context is highly related to forms of capacity building. The social learning framework parallels the social capital theory. From an environmental and resource management perspective, authors suggest that strong alliances and a commitment to processes permit people to learn and work together (Ison 2005; Keen et al. 2005). This is necessary for change and collective action to happen. The five essential learning strands in social learning are reflection, systems orientation and thinking, integration, negotiations and participation.

2.1. Reflection

Reflection is a process of experiencing and developing a deeper understanding about our actions and ideas (Bull et al. 2008). For an environmental manager, project facilitator or practitioner, this involves diagnosing what matters, designing possible solutions, adding new ideas or skills, doing what is possible to bring about change.

2.2. Systems orientation

Systems orientation concerns the properties, constraints and interactions of parts within a system (Keen et al. 2005). Each part may set differing boundaries or expectations and the focus of is on the relationships that connect the parts. Understanding the system is important because it provides a way for organizing thinking on how to facilitate further development of learning with elements of perceived power and control attached to it (Ison 2005). Putting social learning into practice, Bommel et al. (2009)
contend, can be problematic when there are different claims and stakeholders and disagreements, frustration and distrust, which limit possible solutions. A possible intervention based approach to foster better understanding among different actors is through facilitating learning in projects that are relevant and benefits those involved (Bull et al. 2008).

2.3. Integration

Integration concerns matching differences of roles, understandings, decisions or assumptions about a matter of concern within the system. Initiating communication and collaborations may help to match the differences mentioned towards improving the management of human and environmental relations (Ison 2005). Keen et al. (2005) posit that integration is a process about connecting people, skills, knowledge and social roles in new ways.

2.4. Negotiation

Negotiations are processes to help overcome boundaries placed by different communities, professions and agencies that have unique sets of values, knowledge, skills, identity and interest (Bommel et al. 2009). Getting these different actors to work together to go beyond their set boundaries of knowledge can be a challenge to the environmental manager or facilitator (Keen et al. 2005).

2.5. Participation

Participation involves the engagement of different actors in activities to affect decision-making (Arnstein 1969). Keen et al. (2005) highlighted that the concept of participation ranges from coercion to learning or manipulation to self-mobilization. Table 1 indicates the typologies of public participation by several authors. The categories of participation describe the interplay between people’s role, positions of power and levels of knowledge transfer.

Table 1. Types of participation

<table>
<thead>
<tr>
<th>Type of participation</th>
<th>Description</th>
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<tbody>
<tr>
<td>Coercing</td>
<td>Token engagement within a context of large-scale power imbalance, where the will of one group is effectively imposed upon the other.</td>
</tr>
<tr>
<td>Informing</td>
<td>Information is transferred in a one-way flow; there is no knowledge or sharing of decision making.</td>
</tr>
<tr>
<td>Consulting</td>
<td>Information is sought from different groups, but one group (often the government) maintains the power to analyse the information and decide on the best course of action</td>
</tr>
<tr>
<td>Enticing</td>
<td>Different groups share information and jointly consider priority issues, but one group maintains power and entices other groups to act through incentives (such as grants).</td>
</tr>
<tr>
<td>Co-learning</td>
<td>Insiders and outsiders share their knowledge to create new understandings and work together to form action plans and define roles and responsibilities. Decision making power is negotiated within institutional and social constraints.</td>
</tr>
<tr>
<td>Co-acting</td>
<td>People set their own agenda and mobilize to carry it out in the absence of outside initiators. Knowledge is shared between the groups engaged in the activity but knowledge flow and learning outside of this community are not assured. Power in decision making remains with the initiators of the action.</td>
</tr>
</tbody>
</table>

Source: Keen et al. (2005)
3. Facilitating social learning through implementation of sustainable waste management activities with schools: case study of two urban based NGOs

3.1. Global environmental change smart rangers project

Global Environmental Center is an environmental NGO based in Selangor, Malaysia and was founded in 1998. Its slogan, Building partnerships for the environment, represents its concern and main mode of project operation. It established four core projects. Three of the projects deals with activities related to natural resources conservation and management, while one focuses on establishing capacity building and networking with youths. Their SMART Rangers project initiative in 2003 provides the opportunity for individuals or groups to get involved in conservation and environmental management. This environmental NGO receives funding support mainly from international grants. Contributions also come from local government and corporate bodies. The GEC Annual Report 2006 indicated that the income from these bodies totaled RM2, 505,914.00 while the total expenditure was RM2, 502,138.00 (GEC 2011). The strategies include building partnerships with similar minded organizations and creating coalitions with other sectors of the community while actively supporting other actors. GEC has been recognized in the Malaysian school community for creating the first recycling project for a school under the SMART Rangers project (Ministry of Housing and Local Government (MHLG) 2006).

Initially, the SMART Rangers project received financial assistance from the United Nations Development Program Global Environment Facility Small Grant scheme. It also secured some funding from the Danish International Development Agency (GEC 2011). Local banks also contributed financial support to this NGO’s various projects, including the SMART Rangers project. The project builds upon the idea that with proper education, knowledge and skills, younger generations can help build a greener nation. Implementation of the project is through four modules. These are information dissemination, specific knowledge building, hands-on activities and management capacity building (GEC 2011). The processes include establishing the project, selecting and training of student rangers, developing support group for training and action. Students have to prepare a report so that they can evaluate for themselves the volume of recyclables collected and practice some management skills. They discuss their activities or issues in implementations and include these in their discussion during their school club meetings. The first school to apply the recycling project module was a primary school in Selangor. The project sustains under the Love the Environment Club which is registered under the Ministry of Education Malaysia. Under the SMART Rangers project, school students are given simple training and participate in sustainable waste activities. By engaging in the training, students become more aware about the need to conserve resources and the environment. This is in line with the objective of the SMART Ranger Project to train student and teachers to be recycling experts of the school (GEC 2011).

3.2. TrEES recycling projects with communities and schools

TrEES is a Malaysian based, not-for-profit organization registered environmental NGO founded by two Malaysian women to inspire and activate environmentally sustainable lifestyles among Malaysians (TrEES 2011). The founders of TrEES also coordinate all projects under TrEES. They believe in engaging diverse sectors of Malaysian society, at both local and national level, to work together in conserving the environment (TrEES 2011). A supporting staff assists the two women manage and operate the daily activities. This staff will transport recyclables collected from various recycling centers, and later sells to recyclables vendors. The schools and charity homes registered with TrEES then receive the money to maintain and operate subsequent environmental projects.
The directors of this NGO contend that the urban community, compared with the rural community, is the most ‘disconnected’ from the natural environment. Urban communities increasingly place demands on both man-made and natural resources. The NGO’s website draws attention to the fact that the daily lifestyles of the Malaysian public are unsustainable and that, generally, the public perceives individuals as not being able to improve the situation. Thus, to encourage the public to be more environmentally responsible and to lead a more sustainable way of life, TrEES initiated some projects that would enable the public to participate in environmentally relevant activities. This NGO was one of the earliest environmental NGOs in Malaysia in the 1990s to pioneer community based recycling centers. Household recycling projects were considered relatively new at that time and still in the infancy stage. In 1996, TrEES set up a community based recycling center in Klang, Selangor, in collaboration with a charity home for the poor and handicapped. In 1997, the council in Selangor selected TrEES as one of its partners to provide support in setting up recycling centers in collaboration with a hypermarket in the town of Subang Jaya (UN Habitat 2002).

One of TrEES’ current efforts at reaching out to the public and promoting SWM awareness is to organize relevant projects, including recycling competitions for school students (TrEES 2011). Initially, the projects were in collaboration with the implementation of the Local Agenda 21 that had been adopted by several local authorities in Selangor (UN Habitat 2002). The Local Agenda 21 proposed that local authorities collaborate with private, public and non-government or non-profit entities to uphold the concept of sustainable development (UNCED 1992). TrEES’ effort was part of an organised school programme called ‘Connecting the Community to Taman Negeri Selangor’ (TrEES 2011). The project highlighted recycling and SWM. The project, which aims to develop students’ interest in nature and environmental conservation, includes SWM as part of the overall goal of achieving a more sustainable quality of life (TrEES 2011). In this programme, students implement hands-on activities and participate in environmental activities. This helped to develop their management, communication and reporting skills.

4. Data collection, analysis and findings: framing the social learning themes and identifying the constraints

Qualitative data collection comprised interviews with the key persons of both environmental NGOs. Both key personnel from the two NGOs are considered experts in the organization based on the individual’s occupational position, length of time with the organization and the pertinent experience with their projects (Wroblewski & Leitner 2009). Each was the director of the environmental NGO involved in
conceiving, implementing and monitoring the relevant project for more than ten years and had detailed knowledge of the project and the structure of related modules. A grounded approach and constant comparison method derived themes and patterns of the text (Strauss & Corbin 2008). Data categorization and coding enable both the dimensions and properties of the qualitative text to be developed and to discover the patterns among the data (Strauss & Corbin 2008).

A synthesis process evaluates the extent of similarities of the key evidence derived from the perspectives of the key respondents in both case studies. The five strands of themes integral to social learning frames the evidence for the synthesis. In Table 2, the first column includes the operational definition of the theme. The second column highlights the nature of comparison with the particular code. Authors suggest using some meaningful criteria or rules created especially for the study to assist in making comparisons. Le Compte (2000) suggests using some meaningful criteria or rules created especially for the study, can assist in making comparisons. Using a simple code format, Code M indicates a match and Code C indicates a contradiction in responses. The third column highlights the main constraints faced by both facilitators.

<table>
<thead>
<tr>
<th>Themes from qualitative case study</th>
<th>(M) –Matching each other’s perspective</th>
<th>(C) – Contradicting the other’s perspective</th>
<th>Main constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems orientation</td>
<td>M</td>
<td></td>
<td>Limited platforms for discussion</td>
</tr>
<tr>
<td>Integration</td>
<td>M</td>
<td></td>
<td>Limited integration with local authorities</td>
</tr>
<tr>
<td>Negotiations</td>
<td>M</td>
<td></td>
<td>Changing people’s mindset</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Changing local authorities’ management mindset</td>
</tr>
<tr>
<td>Participation</td>
<td>M</td>
<td></td>
<td>Lack of public participation</td>
</tr>
<tr>
<td>Reflection</td>
<td>M</td>
<td></td>
<td>Limited discussion with only those involved or willing to participate</td>
</tr>
</tbody>
</table>

The first theme in the comparison was Systems orientation. In the process of implementing their sustainable waste management projects, both NGO facilitators, have made efforts to foster a relationship with decision makers. However, each NGO facilitator faced some ‘indifference’ from officials. The respondents’ general view was that some waste management administrators did not fully understand the aims and methods of their project and were apprehensive about the role of NGOs as social and environmental facilitators. Authors posit that the perceived roles and boundaries placed by different actors may lead to different understandings, which constrain productive interactions (Ison 2005; Keen et al. 2005). From a social learning perspective, these appear as a mismatch of understanding about the issue due to lack of communication or knowledge, conflicting commitments or non-existence of avenues to hold productive dialogues (Ison 2005).

The second theme in the analysis of comparison was Integration. This theme concerns the efforts to connect people with certain skills and knowledge (Ison 2005). In this study’s context, both NGOs reached out to school students and help implement various activities attuned to the students’ interest. The effort help build the capacity of students to improve upon their oral, written and management skills. In both cases, the sustainable waste management module was integrated with the school’s environmental club activities. In Case Study B, the NGO organized recycling competitions and promoted sustainable waste management activities as part of its forest conservation awareness project.
The third theme, *Negotiations* relates closely to the previous theme in its definition and focuses on processes that make possible the connections or integration of the different actors, knowledge and skills. Often in the process of negotiation, collaborative efforts or partnerships require relevant knowledge and skills in order for actions to take place (Keen et al. 2005). In the process of project implementation, both key respondents reflected that generally, negotiations were more successful when there was a mutual understanding about the outcome of the actions to be implemented. From a social learning theoretical perspective, negotiations are ways of developing a more durable network among different actors (Keen et al. 2005).

*Participation* involves the involvement of actors in various stages of activities from dissemination of information to knowledge sharing and actions implementation. Both key respondents perceived that the ‘traditions of understandings’ can constrain effective participation (Ison 2005, p. 23). Both posit that participation is a key element to facilitate learning as a means to general sustainability. However, gaining public participation or facilitating means for discussions were not easy. There were not many platforms available for discussions with the general public about sustainable waste management. Both key respondents cited that general public apathy and the perception of waste as being the authorities’ responsibility and a lack of understanding with regard to why one should recycle when there is provision for recyclables collection were perceived as barriers to advancing sustainable waste management activities (Kamaruddin & Omar 2011). However, the evidence points to more successful efforts of facilitating learning through participation and discussions among school students. Through the activities implemented in schools, the students took the opportunity to discuss their concerns and implement their aspirations. The students also participated in current and creative ways to sustain the projects by extending recycling to water conservation projects, blogging, social networking, reporting and being consistently involved with monitoring the development of their activities. In relation to this, schools’ learning spaces need to be utilized to foster learning and actions, and this is a key consideration to foster awareness and change. Both informal and formal settings for intervention projects can have a different degree of impact upon young people’s learning and behavior (Wray-Lake et al. 2010). Influencing factors of students’ waste behavior derived from quantitative evidence revealed that students were positively influenced by social norms or positive waste behavior of teachers and other students. Students were also influenced by their own level of involvement with other students in school in relation to sustainable waste practices and participation (Kamaruddin 2010).

*Reflection* is the process of experiencing and developing a deeper understanding about one’s own actions and ideas (Bull et al. 2008). In this study, both facilitators believed that they had learned to overcome the constraints faced by taking into consideration the local context and the appropriate actions. The experts found that students were more positive towards change and enthusiastic to learn and take more responsibility for the environment (Kamaruddin 2010).

5. Conclusion

Within a ‘system’, facilitating social learning of sustainable waste management often revolve around complex themes and understandings of participation, negotiation, integration and understandings between different actors. The evidence from the case studies indicates a development of informal networks that support forms of social capital attuned to the local context. The findings indicate that personal motivation and experience of the initiator and effective forms of communication between two different actors are essential for an effective project implementation. Initiating consultations were necessary to gain support for the implementation of the desired actions. In order to establish more-effective ‘bridging’ or networking with waste officials, proposed strategies to overcome these constraints relate to developing more-creative and pertinent projects that encourage participation and build capacity, such as knowledge
and skills. Other strategies especially pertinent to the second concern are gaining inputs and support from other organizations, such as the university community and resident and youth-led associations and drawing on current practices in promoting SWM behavior with youths and attuning these to the local situation. Implementing the processes and actions with youths can foster their creative leadership and management abilities. This encourages them to become more responsible and better understand their roles to manage future complex situations (Abbas 2012; Wray-Lake et al. 2010). The challenge foreseen is to sustain and take the good practice from niche towards mainstream implementation.

References


