To Improve Assistance for Solid Waste Management

Waste is said to be “a mirror of the society” since waste generation and disposal reflect a range of aspects of the society, such as its economic, historical, cultural, and environmental components. Solid waste problems in developing countries include underdeveloped waste collection systems and inappropriate final disposal, which is causing environmental pollution and placing an additional burden on those already suffering from urban poverty. Moreover, recent levels of economic growth and the subsequent introduction of mass consumption lifestyles from the developed countries are aggravating these problems. Many developing countries continue to have high hopes of benefiting from the expertise and technologies in this sector available in Japan since this country has overcome urban waste problems under government leadership with the cooperation of local communities during the high growth period following WWII. In order to ensure that JICA’s technical cooperation in solid waste management (SWM) is more effective and efficient, this study has identified a wide range of SWM issues facing developing countries and them in a systematic manner. In addition, this study has examined the directions and approaches that JICA’s assistance could take in SWM.

Why “Capacity Development”?  

The main theme throughout this report has been “support for capacity development initiatives taken by the aid recipients.” This concept is chiefly aimed at helping developing countries with their endogenous and sustainable process for improvement. The report suggests that such approaches should be at the center of future development assistance in the solid waste sector. In other words, the report discussed future directions for development assistance in this sector based on the idea that the primary objectives must be to support the recipients in enhancing the SWM capacity of the entire society and in building sustainable SWM systems. Furthermore, the report focuses on how to position capacity development in the context of SWM and on how to provide better assistance, including ways to put the concept of capacity development into practice, as well as considerations related to the actual implementation of projects.

Organization of the Report
Many donors have shifted to this approach because they have learned lessons from their experience in this sector, that the capacity and the degree of ownership of the recipients are critical to ensuring the effectiveness of development assistance. A major question is then how donors can outgrow donor-driven approaches and support the self-reliant initiatives of the recipients to improve the SWM capacity of the whole society of their countries.

To answer this question, this report sets out a new direction-assistance in SWM with the concept of capacity development. For development assistance in SWM, it is important to arrange aid inputs so as to enhance the overall capacity of recipients based on the examination and comprehensive assessment of capacities at three levels: individuals, organizations, and institutions/societies. (Capacity in the SWM context can be summarized in the table below.) Development assistance provided by donors should thus focus on the provision of incentives and opportunities while ensuring ownership by the recipients.

Another important consideration is an emphasis on social aspects or capacities at institutional and societal levels. Although urban SWM services are generally delivered by municipalities, efficient and effective service delivery is difficult to achieve without the active participation of and support from local communities. This is demonstrated by waste collection services and recycling activities in Japan, and developing countries are no exception. Without drawing on past examples of local opposition to the proposed siting of landfills, it is clear that consideration for the communities and agreements with them are now an essential part of waste service delivery in developing countries as well. It can be even argued that solid waste problems are social phenomena closely related to urban and economic problems (especially poverty). This report also focuses on the relationship between waste on the one hand and the society and economy on the other in discussing what is going on in developing countries.

**Towards Establishing Capacity Development Support in the Solid Waste Sector**

Capacity development support in SWM constitutes a key concept in exploring future directions for technical cooperation. In retrospect, some attributes of this concept can be found in JICA's past operations and experiences. However, these attributes are derived from the trial-and-error processes of individual projects; these processes have yet to give rise to the establishment of this concept. Two major challenges have to be addressed. One is to establish practical methodologies for capacity development support by accumulating experience in capacity development support and drawing lessons from such experience, in addition to the original goal of improving the outcomes of each project. The other is to build up human and other resources to provide such support.

### Description of SWM Capacities at Different Levels

<table>
<thead>
<tr>
<th>Level</th>
<th>Definition of capacity</th>
<th>SWM capacities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals</td>
<td>The will and ability to set objectives and achieve them using one's own knowledge and skills.</td>
<td>Knowledge, linguistic competence, skills, expertise, wisdom, will and a sense of responsibility on the part of the individuals involved in SWM</td>
</tr>
<tr>
<td>Organizations</td>
<td>The decision-making processes and management systems, organizational culture, and frameworks required to achieve a specific objective.</td>
<td>Human assets (human resources in the engineering, management, and planning sections in SWM, including the development of such resources) Physical assets (facilities, equipment, land, funds and capital all required to provide SWM services) Intellectual assets (expertise in SWM systems; statistical information including waste flows; literature; manuals; and research data) Organization forms, management, leadership and ownership that can put these assets to good use A shared awareness within organizations</td>
</tr>
<tr>
<td>Institutions/ societies</td>
<td>The environment and conditions necessary for demonstrating capabilities at the individual or organizational level, and the decision-making processes, and systems and frameworks necessary for the formation/implementation of policies and strategies that are over and above an individual organization.</td>
<td>Formal legal framework (laws, decrees and ordinances that define wastes and clarify where the responsibility for waste management lies) Formal regulations and standards (standards on the management, treatment and disposal of wastes; standards on waste generation rates; environmental standards; and legal force) Policies and politics (articulated SWM policies, policy objectives and politics at central and local government levels) Social infrastructure for SWM services Informal institutions (customs, historical institutions, taboos and norms concerning waste) Social hierarchy involved in SWM (waste pickers, certain castes, etc.) Social organizations involved in SWM (CBOs, NGOs and other types of associations) Formal and informal recycling markets and industries Environmental/waste education Systems (good governance) or partnership designed to ensure that the opinions of local residents and communities are taken account of (good governance), involving a partnership between all stakeholders in SWM Social ownership of the implementation of SWM (public sentiments, consensus or willingness to work together, etc.)</td>
</tr>
</tbody>
</table>

(Source: Chapter 4 in the report)