Summary

<table>
<tr><td colspan="3">1. Outline of the Project</td></tr>
<tr><td colspan="2">Country: Democratic Socialist Republic of Sri Lanka</td><td>Project Title: The Capacity Upgrading Project of NSWMSC (CUP-NSWMSC)</td></tr>
<tr><td colspan="2">Issue/Sector: Solid Waste Management</td><td>Cooperation scheme: Technical Cooperation Project</td></tr>
<tr><td colspan="2">Division in charge: JICA Sri Lanka Office</td><td>Total Cost: Approximately 350 Million Yen</td></tr>
<tr><td rowspan="2">Period of Cooperation</td><td rowspan="2">March 2007 to February 2011</td><td>Partner Country's Implementing Organisation: Ministry of Local Government & Local Provinces</td></tr>
<tr><td>Supporting Organisation in Japan: Kokusai Kokusai Kogyo Co., Ltd.</td></tr>
<tr><td colspan="3">Related Cooperation: none</td></tr>
<tr><td colspan="3">1-1 Background of the Project
In Sri Lanka, the seriousness of the problems caused by waste has been on the rise due to a surge in the amount of waste generated, attributed mainly to economic growth and a lack of effective countermeasures being taken. Although the National Strategy for Solid Waste Management was formulated in 2000, no significant improvement in solid waste problems have been observed due to a lack of capacity of both LAs, who are responsible for the execution of SWM, and provincial councils, who are responsible for their supervision.
In order to tackle these problems, JICA executed "The Study on Improvement of Solid Waste Management in Secondary Cities in Sri Lanka (JICA SWM Study)" from 2002 to 2003. In this Study, action plans for seven selected local towns were formulated and the implementation of various pilot projects resulted in visible improvements. In addition, the Study found that LAs experienced difficulty in executing proper SWM if no technical assistance was provided, and provincial councils without in-house SWM engineering staff found it hard to supervise LAs in improving SWM. Therefore, the Study recommended establishing a system which would provide assistance to LAs by the central government. In concrete terms, it recommended the establishment of a NSWMSC and strengthening the system for financial assistance to enable LAs to carry out SWM projects.
However, the MLGPC had come to a deadlock in implementing the Study's recommendations due to the insufficient stock of SWM knowledge and human resources. Therefore, in August 2004, the Sri Lankan government requested the Japanese government to provide technical assistance in order to materialize the aforementioned recommendations and to initiate long-term improvement measures. In addition, the NSWMSC was established internally in July 2006, and officially approved by the cabinet in January 2007, with plans to strengthen the organization in the years to come.
In response to the request, JICA dispatched a preliminary study team in November 2006 and confirmed the validity of the project implementation. The M/M, which stipulated the project outline, the executing system and distribution of tasks, was compiled and the Record of Discussion (R/D) was signed in January 2007. In order to allow NSWMSC to fully exercise its capabilities, 4 year project has been implemented since March 2007.</td></tr>
<tr><td colspan="3">1-2 Project Overview
In Colombo, technical transfer is conducted to NSWMSC to promote solid waste management activities in local authorities in Sri Lanka.

(1) Overall Purpose:
Local Authorities improve solid waste management</td></tr>
</table>

(2) Project Purpose:
The NSWMSC acquires capacity for supporting SWM activities of LAs with close collaboration of relevant stakeholders so that LAs can implement SWM activities in accordance with the National Strategy for Solid Waste Management

(3) Outputs:

Output 1
NSWMSC establishes the basic organizational structure with the mid-term implementation strategy

Output 2
The NWWMSC establishes an efficient mechanism for supporting LA's SWM by stake holders

Output 3
Facilitation capacity of the NSWMSC for implementation of SWM action plans of LSs is acquired

Output 4
NSWMSC provides necessary information so that the Ministry can contribute to the National SWM policy and strategy

(4) Inputs (as of the Terminal evaluation)

Sri Lankan Side:

<Counterparts>
Director none 1
Assistant Director 1
Staff 5

<Office space>
The NSWMSC office was prepared prior to May 2007 which provides enough space for around 15 people. Necessary utilities, such as electricity and water, have been provided too.

Japanese Side:

Total amount: Approximately 350 Million Yen

<Dispatch of Japanese experts> Total:6 experts
Chief Advisor/Capacity Development
Solid Waste Management Planning/3Rs
Final Disposal Planning/Environmental consideration
Promotion of PPP and Social Consideration
Financial Management/Fund Planning
Project Coordination

<Equipment>
Vehicle, PC, Photocopy, Printer, GPS etc.

<Counterpart Training in Japan>
6 person

2. Evaluation Team

Member of Evaluation Team	Sri Lankan Side Mr. D.P. Hettiarachchi Additional Secretary of the MPCLG Mr. M. J. J. Fernando Assistant Director of CEA Ms L.Mangalika Director of NWSMSC Ms. M. Geethani Assistant Director of NSWMSC Sri Lankan Side Dr. Mitsuo Yoshida (Leader) Senior Advisor, JICA Dr. P. Serasinghe (Cooperation Plannin) Representative, JICA SL

	Dr. Norihiro Noda (Evaluation Analysis) Consultant	
Period of Evaluation: 28th July 2010 to 17th August 2010		Type of Evaluation: Terminal Evaluation

3. Results of Evaluation

3-1 Achievements

(1) Project Purpose: The NSWMSC acquires capacity for supporting SWM activities of LAs with close collaboration of relevant stakeholders so that LAs can implement SWM activities in accordance with the National Strategy for Solid Waste Management

Project purpose is generally achieved as planned. Through the Project, NSWMSC develop its capacity from management and technical aspect (Capacity evaluation [Management/Techical] in 2010 is [70%/40%] by NSWMSC and [71%/57%] by Japanese expert). Efficient mechanism was established with the collaboration of solid waste management authority in provinces to assist SWM in local authorities. Budget allocated for the SWM including Pilisaru Project has been increased annually, and NSWMSC has assisted the projects of more than Rs. 200 million in2009, which shows the improvement of NSWMSC capacity. However, number of NSWMSC staff is not enough (only one engineer at director position), which hinder the technical transfer from Japanese experts to C/Ps in the heavy workload to handle with the daily work. Considering the sustainable assistance on operation and maintenance and SWM system in local authorities, it is urgent needs to solve staffing issues. It is observed that it is difficult to allocate the staff as agreed in R/D or PDM3, however, at least 2 engineers should be additionally allocated and transferred the technical capacity (especially on SWM system management), which contribute the achievement of the project purpose.

Number of Personnel

	Director	Deputy Director	Assistant Director	Administrative staff	Total
Personnel agreed on R/D in Jan, 2007	1	3	5	12	21
Personnel agreed on PDM 3 in Sep,2009	1	2	3	8	14
Personnel as of terminal evaluation	1	0	1	5	7

※2 drivers and 1 office boy is assigned apart from above.

(2) Output

Output 1: NSWMSC establishes the basic organizational structure with the mid-term implementation strategy

Output 1 is generally achieved as planned. Mid-term strategy of NSWMSC was revised based on PDM and the project document. Project document is distributed to all the NSWMSC staff and staff are working efficiently with the clear idea of work process and decision making process. NSWMSC staff has accumulated its knowledge through the training material. It is noted that lack of the staffing of NSWMSC should be solved by allocating at least 2 additional engineers by the end of the Project.

Output 2: The NWWMSC establishes an efficient mechanism for supporting LA's SWM by stake holders

Output 2 is generally achieved as planned. Solid waste management authorities have been established in 5 provinces, with which NSWMSC start working to assist SWM in local authorities. Action plans for SWM in provinces have been formulated in 3 provinces (Sabaragamuwa, Central, Northern), and to be formulated by end of 2010 in 2 provinces (Eastern, North Eastern) NSWMSC have provided trainings for local authorities with SWM guidelines and manuals for more than 560 stakeholders in 8 provinces. Information was distributed through "NSWMSC News" (leaflet) and website. "NSWMSC News" was translated in 3 languages (Shinhara, Tamil, English) and 7 sets were distributed to 330 local authorities, all JICA ex-participant association members of SWM training, and other relavant stakeholders. Information (including SWM guidelines and manuals) could be downloaded from website.

Output 3: Facilitation capacity of the NSWMSC for implementation of SWM action plans of LSs is acquired

Output 3 is generally achieved as planned. 14 local authorities have been assisted by NSWMSC to formulate/implement action plan and 8 local authorities are constructing or operating the SWM facilities based on the action plan (Remaining 2 local authorities are under preparation of action plans and 4 local authorities are under preparation to implement action plan.) NSWMSC assisted other 3 local authorities on SWM as well. Through formulation and implementation of action plans of local authorities, NSWMSC has developed its capacity on land acquisition, legal permission and approval, social issues, fund acquisition, procurement, operation and maintenance, monitoring etc.

Output 4: NSWMSC provides necessary information so that the Ministry can contribute to the National SWM policy and strategy

Output 4 is partially achieved as planned. NSWMSC understand the SWM situation in Sri Lanka through the survey conducted in 157 local authorities and daily cooperation with local authorities. NSWMSC also keeping its network with UN, birateral donors, NGOs, university, JICA ex-participant association of SWM, and other human resources in and out of the countries. NSWMSC is expected to share its knowledge and its recommendation to SWM policies through annual report.

3-2 Summary of Evaluation Result

(1) Relevance: High

The Team concluded that the Project is fairly relevant to the policy of the Government of Sri Lanka. This is because SWM is prioritized at National level, Provincial level, as well as LA level, and the services of the NSWMSC are widely welcomed by Provincial Councils and LAs. The level of satisfaction with NSWMSC's assistance is very high among stakeholders on target LAs. All of them stated the model projects could not be realized without the support from the NSWMSC and Provincial government. This is proof of the significance and necessity of the NSWMSC support.

The Team also concluded that the Project is fairly relevant to the Official Development Assistance (ODA) strategy of the Government of Japan. In the ODA strategy of Japan towards Sri Lanka, Japanese policy clearly states that Japan cooperates for keeping the island as a beautiful country through improvement of infrastructure, and conservation of living & social environment in the urban areas, as well as improvement of the urban environment, which is

one of the key areas of JICA cooperation.

(2) Effectiveness: Middle

The Project produced a number of visible outputs like several compost plants, landfill, and night soil treatment facilities. Through implementation of the action plans, NSWMSC has gained its capacity and established the mechanism to assist LAs SWM. However, such facility is merely a component for securing effective SWM but not SWM system itself. The Project has still a room for upgrading the Capacity for supporting LAs on SWM system understanding and operation, without which the Project Purpose would not be completely achieved.

The Capacity Upgrading for NSWMSC to support LAs with Provincial Councils on SWM system management and operation & maintenance of constructed facilities is, thus, the main issue for the coming 5 months period by the end of the Project.

Project purpose could be achieved if at least 2 engineers are additionally allocated and technical transferred is conducted including SWM system.

(3) Efficiency: Middle

Apart from the staff shortage issue, input from Japanese side and Sri Lankan side is appropriate and contribute to the output. The Team also identified the following points which were significantly improved since the Mid-term Evaluation.

As pointed by the Evaluation, there was a big opportunity being lost because of the shortage of core staff of NSWMSC, in the first half period of the Project. Actually, the Japanese Expert Team dispatched for NSWMSC was working as “filler personnel”, because of the shortage of counterpart staff in NSWMSC. The Effectiveness was not favorable in the first half period.

In the second half period of the Project, NSWMSC could successfully establish collaborative relations with the Provincial Councils and other local resources, namely provincial engineers, academic professionals, experienced implementers in local level, etc. for supporting LAs, so much more efficient contribution became possible to Project Purpose level.

(4) Impact: High

The Team recognized from the findings of the joint evaluation survey that the following various impacts are emerging from the Project:

Now the number of functioning compost plant is 56 LAs of total 330 LAs (17%), where more or less improvement of SWM has been started by the LAs. The model project with appropriate technologies in a LA have had a propagating effect, which demonstrated and encouraged to other LAs that there is a feasible direction in their SWM. It can be recognized as positive impacts.

Most of the LAs were becoming so called “product-oriented” which is attracting many stakeholders because they think SWM problems can be sorted out by having a compost plant, for example. However, the “product” is a tool and they will have to realize that even after they acquire the plant, there might be many other things to be done in SWM. Some target LAs such as Kuliyapitiya came to in-depth understanding on optimization of SWM system and now is introducing a source-separation and collection method under the cooperation of community.

There has been important sign of a big impact in institutional framework such as organizing SWM Committee or organization in Provincial level because of the Project.

(5) Sustainability: Generally Hih

The sustainability after the completion of the Project will be secured if NSWMSC develops the Capacity to support LAs in operation and maintenance of facility and SWM system

management. These issues are previously pointed by Mid-term Evaluation and by the JICA Expert Team, but so far such activity is very limited. The Team concluded that some concentrated efforts are necessary for several target LAs in the issue. After getting god practice in the targeted LAs, if NSWMSC continue its work with qualified staff the sustainability will be secured.

There is growing involvement of key stakeholders, such as provincial government in the process of the model projects. If the involvement is realized in much more provinces, the sustainability will be strengthened.

Funds for the construction of SWM facilities have been secured by Sri Lank, however, after a few years, many local authorities will have to seek another source of funds for SWM. It is necessary to prepare small-scale fund mechanism that is appropriate for LA level SWM project, without which the sustainability is not fully secured.

3-3 Factors that impeded realization of effects

(1) Factors concerning the planning

- Importance of broader and progressive approach to solve problems:

The MLGPC first established National Solid Waste Management Support Centre (NSWMSC), and the Project succeeded human resources development of the NSWMSC through preparing action plans with LAs, producing visible outputs/products such as composting plants through conducting model projects with LAs, and is now going to develop a support mechanism with Provincial councils to LAs, which is gradually broader and progressively better approach to provide solutions to waste problems.

- Capacity upgrading at institutional level through appropriate implementation structure

The NSWMSC was established under the MLGPC, and there are many advantages because of this institutional/organizational setting. The Ministry can exert its power and authority to Provincial councils to LAs in order to provide necessary assistances on improvement of SWM through the supports by the NSWMSC.

The Team found significant development in establishing effective mechanism, for instance, having stronger involvements of Provincial level and enhancing networks among LAs in accordance with the present provision of structure.

(2) Factors concerning the implementation process

- Capacity Assessment of individual and organizational levels of NSWMSC

JICA Expert Team and NSWMSC counterparts applied unique capacity assessment using annual questionnaire survey in the Project, which visualized, anyhow successfully, the acquisition state of capacities at individual and organizational levels. The capacity assessment at individual and organizational levels also demonstrated to show the progress and challenge of the Project in practical manner.

- Role of Steering Committee

Steering Committee was held every 6 month chaired by Secretary of MLGPC and consists of MLGPC, NSWMSC, Ministry of Finance and Planning, Ministry of Environment, Ministry of Health, Central Environmental Authority, Provincial Councils etc. Steering committee play the role not only to share the progress of the Project and made important decision of the Project, but also to provide the occasion to exchange the information, discuss on the SWM in Sri Lanka, coordinate variety of the projects among stakeholders.

3-4 Factors that impeded realization of effects

(1) Factors concerning the planning
Nothing special
(2) Factors concerning the implementation process
While the required service of the NSWMSC increasing, enough staff of NSWMSC was not allocated, which cause the heavy workload of NSWMSC and hinder the technical transfer from Japanese expert in the busy schedule. Due to the hard work of the each staff of NSWMSC, NSWMSC could manage to assist the SWM project amount up to 200 million and nearly achieving the Project purpose. However it is highly necessary for NSWMSC to allocate additional staff (especially engineers) to secure effective and sustainable assistance of SWM in local authorities.

3-5 Conclusion
Relevancy is evaluated as high. The Project produced a number of visible outputs like several compost plants, landfill, and night soil treatment facilities. Through implementation of the action plans, NSWMSC has gained its capacity and established the mechanism to assist LAs SWM. While NSWMSC has some aspect to be improved (such as to secure additional staff, to strengthen SWM system management, to secure financial scheme for local authority to implement SWM), it is observed that project purpose and overall goal is expected to be generally achievable.

3-6 Recommendation
(1) Immediate action on personnel placement

Core staff vacancies (2 Deputy Director and 2 Assistant Directors) should be filled as soon as possible. At least two engineers are urgently necessary for implementing the Project successfully in its final stage and even after the Project. Technology transfer program shall be done for these engineers by JICA Expert Team after the assignment.

(2) Effective assistance mechanism for Local Authorities
Strong involvement of Provincial level is essential for supporting LAs, although it depends on each province's situation. Five Provinces have been cooperated with NSWMSC on SWM issue in LAs, but so far, such cooperation mechanism has not yet fully established with the other Provinces.

Networks among stakeholders, for example a leading LA which experienced good practice on improvement of SWM to other LAs, should also be strengthened in order to share the experience and technical know-how.

(3) Human resource development
To strengthen above mechanism, there are needs in training for engineering staff of Provincial councils and LAs, as well as technical, environment, health and community development staffs in LAs for sustainable SWM implementation. In other words, it is important to produce a human resource base for the SWM at local level. Various types of training course or workshops shall continuously organized by NSWMSC.

(4) Manual for formulating Action Plan
NSWMSC has gained the capacity to formulate a SWM action plan for a LA through the Project experiences, although the NSWMSC staff has to spend relatively long time for the planning, and the quality of action plan prepared should be also improved. In order to upgrade

the capacity of NSWMSC staff, above-mentioned experiential approach applied in the Project was effective, but it is necessary to shorten the time spent for formulation and to improve the quality of the plan. It is recommended to review the formulation method so than more clear action plan can be quickly formulated, which is probably very useful for Provincial engineers and LAs officers.

(5) System management practice in SWM

In the most model projects supported by the project, SWM facility such as compost plant has constructed and the waste problems in Las are gradually mitigating. However, there are some concerns about sustainable implementation of SWM activities, operation & maintenance of facility, and rational setting of the waste management flow under the existence of the facility in Las. Individual facility is just a component of SWM, and establishing an effective and efficient system for SWM is required under the actual conditions of Las. "System management" is essential for implementing and optimizing sound SWM with a newly constructed SWM infrastructure. The issue on source separation, rational collection & transportation, recycling, etc. should be examined based on given conditions. In the system management, at the same time, it should be considered how to ensure the sustainability of SWM operation & maintenance and economic viability. The NSWMSC and the MLGPC should give necessary advice and direction on system management including its operation & maintenance and economic viability issues.

(6) Public awareness and Mass media

One of key stakeholders to operate SWM system has been left behind. The Project should take the opportunity and show leading practices and project activities, like Action Plan Presentation, to raise awareness of civil society on SWM and appeal the importance of change in public general's behaviour.

(7) Continuance of Steering Committee

Steering Committee of the project works not only for the monitoring of the project but also playing the important role to provide the occasion to exchange the information, discuss on the SWM in Sri Lanka, and coordinate variety of the projects among stakeholders. Thus it is recommended to continue holding the steering committee even after the Project.

3-7 Lessons learned

(1) Role of Steering Committee

Steering Committee of the project consists of all the relevant organization on policy, implementation, finance, etc. works effectively not only for the monitoring of the project but also playing the important role to provide the occasion to exchange the information, discuss on the SWM in Sri Lanka, coordinate variety of the projects among stakeholders.

(2) Assessment in individual and organizational capacity

In case the project purpose is capacity building of the organization, capacity assessment (this project introduced 3 category of the assessment in management, technical aspect and working environment with questionnaires) recorded every year could be effective to visualize the result of the assessment whereby demonstrating the progress and challenge of the Project.