

**KINGDOM OF CAMBODIA
NATION RELIGION KING**



**Survey Report on
Waste Management Practices
At Municipality/District Level**



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Survey Report

“The Implementation of Waste Management at Cambodian’s Municipality/District Level”

**Conducted by
The National League of Local Councils (NLC) and**

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Acronyms

BoG	: Board of Governors
C/S	: Commune/Sangkat
CINTRI	: CINTRI (Cambodia) Ltd
CoM	: Council of Ministers
DEF	: Department of Economy and Finance
GAEA	: Global Action for Environmental Awareness
IPADE	: Instituto de Promoción y Apoyo al Desarrollo
KAS	: Konrad-Adenauer-Stiftung
M/D	: Municipality/District
MA	: Municipality Administration
MEF	: Ministry of Economy and Finance
MoEnv	: Ministry of Environment
Mol	: Ministry of Interior
MRD	: Ministry of Rural Development
NCDD	: National Committee for Subnational Democratic Development
NGO	: Non-Government Organization
NLC/S	: National League of Municipality Districts/Khans, Communes/Sangkats Councils
PA	: Provincial Administration
PET	: Polyethylene Terephthalate
RGC	: Royal Government of Cambodia
SCARO	: Community Sanitation and Recycling Organization
SHV	: Sihanoukville
SNA	: Sub-National Administrator
WMU	: Waste Management Unit

Executive Summary

In accordance with the RGC commitment to transfer waste management function to the M/Ds in the Kingdom, the NCDD in cooperation with the MoEnv reviewed relevant legal frameworks on Waste Management and proposed to the RGC to adopt the Sub-Decree No. 113 on Solid Waste Management in Urban Areas in August 2015. To assess and better understand the situation of this Sub-Decree, implementers at the sub-national level, namely the NCDD in cooperation with NLC under the technical supports from KAS Cambodia, have gathered experiences and lessons for documenting the current practices and challenges on Waste Management at M/D level in Cambodia as well as in other countries such as the Philippines, Indonesia, Thailand and Germany. In Cambodia, the National League of Local Councils surveyed 36 M/D administrations on solid waste management during September 2015. Key findings of the survey include:

Waste and urban environmental issues have become one of the most pressing problems in Cambodia and are now being discussed on a daily basis in public conversations, mass and social media reports and policy dialogues. Despite blaming on rapid urbanization, it is not an option to solve issues of waste management by slowing down this growth pace. From the survey, there are fundamental challenges to be considered for waste management function implementation. These challenges include amongst others a centralized mode of management, inadequate and inappropriate legal framework, and ineffective enforcement of legal instruments as well as inefficient human and financial resources.

There are legal instruments on solid waste management this survey refers to. The one being in effect is the Joint MoI-MoEnv Prakas No. 80, while the newly adopted Sub-Decree No.113 is still in parole mode. A few M/D have tried to implement this without further delay, but faced great challenges in translating it and mobilizing support, in particular from their Provincial Administration (PA) and Department of Economy and Finance (DEF)/Ministry of Economy and Finance (MEF), who have implemented this function in the past. Trying to avoid committing any mistakes, most M/Ds have rather waited for further instructions and guidelines for any step forward. Any attempt to be proactive on problem solving has been encountered with obstacles.

Nevertheless, it is clear that broad policy and legal instruments also mean allowing for nurturing ideas and initiatives. Broad policy and legal instruments do place pressure on (active) M/D or sub-national administration in general to try and understand existing policy and legal biddings. This means that with some good legal advice, M/D could have some opportunities and flexibilities for implementation.

There are different types of service contracts, especially with regard to length. Many surveyed M/D administrations have now been seeking a way out, either through termination of these contracts or changes of the authorized party (from PA to M/D). For 1-year and/or soon expiring contracts, options are wider open, provided that M/D are capacitated for this waste management function.

Different practices have enabled different M/D to gain different capacities (such as for by-law or local legal instrument formulation) and instill for different results (such as the ranking for Clean City Program, mobilization of additional fund from composting etc.). However, efforts for different resolution actions and people's willingness to pay present great opportunities for future improvement and financial self-reliance. Combined with international lessons, experiences and inputs, M/D administrations could quickly be capacitated to undertake this solid waste management function in an effective and efficient manner. Based on the findings and identified challenges of the survey, the NLC would like to recommend the following:

As for "good" practice documentation and the implementation of the RGC's financial resource commitment in 2015, the Joint MoI-NCDDS-MoEnv-MEF working group should conduct:

- In-depth studies on good practices and challenges faced by different modes of actions. From this survey, Stoeung Treng should be studied on arrangement of municipal waste management unit, tariff fee calculation approach, setting process and its effectiveness. Stoeung Sen and Kratie should also be discussed on approaches of setting up service fee and its collection mode.
- Additional studies on good practices in the region and elsewhere are complementary for this effort to promote effective waste management;
- Mobilize teams composed of different technical officials from MEF, Treasury, MoEnv and NCDDS to support and facilitate present obstacles faced by M/D on the 2015 disbursements;
- MEF and MoEnv should guide their provincial line departments to provide full support to M/D planning and budgeting processes and its execution;

For the promotion of decentralized solid waste management, the National League of Local Councils will work closely with the joint MoI-NCDDS-MoEnv-MEF working group and advocate for real devolution, allowing for discretionary authority given to M/D to manage local matters such as waste and related urban environment. Advocacies will focus on:

- Promotion of Decentralized Approach (legal framework and its implementation)

Relevant guidelines on M/D delegated waste function implementation are critical, but allowing space and flexibility for M/D in solid waste management should be considered. Flexibilities should be on the selection of waste collection modalities, approach and formula for fee setting establishment of appropriate mechanisms for strengthening service user-service provider accountability.

Undertaking legality check or oversight activities of the national inter-ministerial working groups also requires appropriate capacity building for sub-national administrators (SNAs). In solid waste management, M/D need to have full understanding of the Sub-Decree No. 113, Inter-Ministerial Prakas No. 073, MEF Circular No. 800 and other relevant guidelines for this

newly delegated function. In this regard, national level agencies should enable M/D to employ decentralization and legal experts and/or obtain legal advices for these purposes.

- Human and Financial Resources

Operational capacities of M/D are equally necessary because assigning waste management function to M/D requires development of human resource pool at this level. National Ministries should allow M/D to create suitable entities and recruit local experts from different sources. For M/D that engages private waste collection companies, M/D oversight and M&E roles need to be strengthened. This capacity building component could be supported by the National League of Local Councils initially through organization of cross-study visits in the country and in the region. Most urgently, M/D needs financial resources. While solid waste management could generate self-reliant incomes (from fees, fines, recycling and other own sources) in the long term, the RGC's annual resource commitments are required. This inter-governmental transfer portion will have to be adequately allocated based on equitable formula for M/D with less own source of revenues – revenue bases – for increased transfer pool.

As the survey was conducted in September 2015 and the original report written at the end of 2015, research and report reflect the situation at the time of writing.

Phnom Penh, May 2016

Chapter 1: Background

1.1 General information

In the efforts to promote functional assignment to sub-national administration, the National Committee for Subnational Democratic Development (NCDD) in cooperation with the Ministry of Environment (MoEnv) had been reviewing relevant legal frameworks on Waste Management. As a result, the Royal Government of Cambodia (RGC) adopted the Sub Decree No. 113 on Solid Waste Management in Urban Areas in August 2015. It aims at transferring the function of solid waste management under the mandate of MoEnv and the handling of provincial/capital administration to the Municipal/District (M/D) administration.

To better understand the situation of the implementers at the sub-national level, NCDD in cooperation with The National League of Municipality Districts/Khans, Communes/Sangkats Councils (NLC/S) under technical support from Konrad-Adenauer-Stiftung (KAS) Cambodia have been gathering experiences and lessons for documenting the current practices and challenges on Waste Management at M/D level in Cambodia as well as in other countries such as the Philippines, Indonesia, Thailand, Vietnam and Germany.

As for Cambodia cases, a survey questionnaire on waste management practice by M/D administrations was developed and processed. The survey's results together with best practices gathered from neighboring and overseas countries will play an important role for national and local policy makers in supporting the development of proper waste management policies, particularly legal instruments and technical guidelines to implement the newly adopted Sub-Decree No. 113.

1.2 General information of waste management in Cambodia

In this era of rapid economic development and increasing tourism, managing waste is a key environmental challenge and of utmost importance alongside other issues such as sanitation, water and air quality, soil pollution etc.

In the framework of the ongoing decentralization and de-concentration policy of the Royal Government of Cambodia waste management is one of the key areas where roles and responsibilities between administrative tiers of government regarding the management and finance of waste need to be further fine-tuned. In this regard, the RGC recently adopted the Sub-Decree No. 113 on Solid Waste Management in Urban Areas that is yet to be implemented.

In practice, solid waste management has become a priority in various places at different times because of the pace of urbanization. In most urban towns outside Phnom Penh, waste management by SNAs has struggled since the last ten years while Phnom Penh, that faced this issue before any other places (from mid 1990s), seems to be already coping with it. On the other hand, private companies seem to be the ones that initiated and approached government

agencies (for service contract). Most contracts/deals on waste collections have been made secretly, prompting angry citizens to blame national governments as problem creator rather than solver.

Recycling takes part mainly in form of material recycling driven by informal recycling activities within and outside the city or at the dumpsite. Valuable materials like PET-bottles, tin plate or other plastics are sorted out and sold to intermediaries. The rest of the collected waste is dumped at the outskirts without any further measures of environmental protection.

1.3 Methodology for Mapping Exercise/the Survey

Originally, 46 M/D administrations were selected from the total 185 for orientation on survey methodology and contents. Amongst those 46, there are all 26 municipalities in 24 provinces and 20 districts in 12 provinces. The selection of those 12 districts was based on the following key criteria:

- Districts with tourism activities/potential
- Districts with strong industrial economic activities
- Rural districts

After an orientation on the survey methodology and contents at a workshop conducted in Phnom Penh in September 2015, 36 M/D administrations were given four weeks to fill out the questionnaires. The questionnaires were sent back to the National League of Local Councils by mid- October 2015 for decoding and analysis.

To supplement the survey, discussions on preliminary findings with small groups of stakeholders (including national and M/D levels) were held in Phnom Penh on 5 November 2015.

Furthermore, investigative interviews were conducted with Sihanoukville (SHV) municipal council chief, Board of Governors (BoG), department of environment and provincial BoG.

1.4 Limitation

This survey only focuses on M/D administration with regard to their involvement on solid waste management. This means that roles and practices of other key actors, such as the provincial administration, provincial departments of environment, economy and finance, commune/Sangkat council and private sector fall outside the scope of this survey.

Besides, this survey does not assess the performance of M/D administration on solid waste management. It rather collects information on issues related to the implementation of the solid waste management function for a deeper study and analysis.

The survey therefore only provides the National League of Local Council with information on the present situation, practices and challenges regarding waste management at M/D level.

This information is useful for all national and subnational stakeholders involved in the development of policies and legal guidelines during the implementation of the newly adopted sub-decree No. 113.

Chapter 2: Findings

2.1 Legal Framework (from the previous legal review)

2.1.1 National Legal Instruments

According to national legislation, solid waste management has been regulated since 1999. There is RGC' Sub-Decree No. 36 on Solid Waste Management adopted on 27 April 1999 and its guidelines on implementation of this sub-decree issued five months later. In effect, following this No. 36 sub-decree, there came a 2003 Inter-Ministerial Prakas of MoI and MoEnv No. 80 on Solid Waste Management in Province/Municipality, to which the surveyed M/Ds refer. It was still the legal framework on solid waste management at the time of this survey.

This joint Prakas No. 80 covers the scope of all activities of waste collection, cleaning, temporary storage, transport, recycling, and disposal of all types of (solid) waste and aimed to promote responsibilities of the local and concerned authorities in order to effectively implement measures on waste and solid waste management in provinces/municipalities of the country. The municipalities referred to by this joint Prakas were Phnom Penh, Preah Sihanouk, Kep and Pailin. Nowadays, these entities have been transformed to the Capital and Provinces. Overall, the joint Prakas gives local and concerned authorities the following key roles and responsibilities:

- Locate enough waste containers, insure scenery and clean environment,
- Install the prohibition sign and educate on the storage and (solid) waste disposal,
- Assign and arrange temporary appropriate (solid) waste storage areas without disturbance to traffic, public health, scenery and social public order,
- Collect, clean and transport (solid) waste to dispose at the location assigned by competent authorities or local authorities regularly
- Commune/Sangkat Councils in cooperation with institutions or concerned units shall educate and disseminate to all citizens on the storage of (solid) waste disposal through hygienic and safe environmental methods. In order to reduce the amount of (solid) waste disposal, the C/S Councils shall promote and encourage activities of recycle or (solid) waste recycle process within its jurisdiction,
- Provincial/Municipal Environmental Departments and Khan/District Environmental Agents shall work as subordinate to local authorities in preparation of management planning and participate to develop action plan on collection, temporary storage, transport and (solid) waste disposal and cooperate and monitor that implementation, and write report on their action implementation on collection, temporary storage, transport and (solid) waste disposal in every semester and submit this report to Ministry of Interior and Ministry of Environment as well as copied to concerned institutions.

From these delegated tasks mentioned in the Prakas, it is clear that M/D administrations do have unclear roles and responsibilities. Throughout the Prakas, M/D administrations were only mentioned in the Article 3 on the “definition” while provincial and then-municipal

administrations (i.e. the capital and province, nowadays), departments and M/D offices of environment, and Commune/Sangkat councils do have the delegated mandate which includes educating and disseminating to all citizens the knowledge and techniques on storage, (solid) waste disposal through hygienic and safe environmental methods in order to reduce the amount of (solid) waste disposal.

The recently adopted Sub-decree No. 113 (August 2015) provides M/D with a better and clearer mandate on solid waste management but it has not yet been implemented. Amongst others, the Sub-Decree has the following objectives:

- Strengthen responsibilities of ministries, institutions, specialized units, sub-national administration and relevant stakeholders who involve with garbage and solid waste management in urban areas;
- Assign the task of garbage and solid waste management in urban areas to municipality, town, and district administrations;
- Identify necessary measures to increase effectiveness and safety in garbage and solid waste management in urban areas;
- Increase public awareness and people's participation in the development and implementation of local garbage and solid waste management.

Under this Sub-Decree, provincial administration is only given the roles to provide support, coordination and encouragement to the operation of garbage and solid waste management as directly implemented by the town/municipality and district administrations. This means that M/D administrations would have clear roles once this Sub-Decree is implemented.

2.1.2 M/D Legal Instruments

Despite that the joint Prakas No. 80 has not provided M/D administrations with clear roles and responsibilities, eleven or 31% of the total 36 surveyed M/D administrations claimed that they had issued legal instruments on solid waste matters. Amongst those, Battambang, Kampot and Stoeung Treng Municipalities issued more than four instruments. Nevertheless, Councils of Prasat Sambo District in Kratie, Kampot, Kampong Cham and Kep Municipalities have adopted at least one of their M/D issued legal instruments. For demonstration purposes, below' is a table of contents of a 4-Article Kampot Municipality Deika on Solid Waste Segregation adopted by the Municipal Council in 2014:

Table 1: Bylaw/Deika on Solid Waste Management Segregation of Kampot Municipality

Article 1: Purpose of the Deika
Article 2: Scope which defines areas and locations at which citizens and entities have to segregate their waste before disposal
Article 3: Roles of implementation mechanism
- Municipal council; - Municipal BoG; - Sangkat Council

Nearly all surveyed M/D administrations reported that they had disseminated provincial and national legal instruments to Commune/Sangkat councils, businesses and other stakeholders in their jurisdictions. For M/Ds that have no Office of Environment, this dissemination task has been handled by its inter-sectorial office and/or the other two offices, namely Administration and Finance Office and Commune Support and Planning Office.

2.2 Practices

2.2.1 Overall situation of waste management at M/D level

Waste has clearly come with improved living conditions. According to M/D administration, waste comes mainly from residences, markets, restaurants, tourism sites and factories. Second level waste producers are public places, clinics, enterprises, public and private offices, schools and temples. About 8% of the surveyed M/D (36) referred wastes coming from construction sites and car/bus stations. Three percent also mentioned about waste coming from occasional events such as wedding, Buddhism's and other ceremonies, and as well from travelers.

From the survey, practices on solid waste management at M/D level varied significantly. In most rural areas, waste management perception and practice are still problematic. Most M/D administrations as well as other concerned agencies such as district line offices believe that residents own appropriate land area and means to take charge of their own waste. In other words, they believe that waste should be managed and handled by the individual households through burying and burning methods. Rural sanitation is further understood as the mandate of a different entity, namely the Ministry of Rural Development (MRD), which only focuses on latrines and hand-washing. Also, the MRD is understaffed and presently faces great challenges with its centralized mode of implementation.

Solid waste management in urban areas at M/D level has further been handled differently. In districts and towns, where markets and businesses exist, the Provincial Department of Economy and Finance (DEF), under direct supervision of the respective provincial administration, has entered the so-called "Waste Management Collection Service" agreements with market fee collectors. Businesses and households located nearby these markets have arranged by themselves with these provincially selected waste collectors for waste management from their locations. Challenges for this type of waste management are massively increasing due to the rapid pace of urbanization in those areas. Waste collectors do not possess skills, equipment and facilities for waste management, but are rather contracted for market fee collection.

In a few districts located near Provincial Towns (i.e. the Municipality) such as Kampong Siem in Kampong Cham, Toeuk Chu in Kampot etc., private companies receiving a waste collection contract from the provincial administration for the neighboring municipality (i.e. provincial town) have started to include some urban areas (mostly nearby markets) of those neighboring

districts. This mode of expansion for service provision is very much based on negotiations between provincial and district administrations with the company, but most importantly on people's willingness to pay.

In most municipalities, the solid waste management function has been transferred to private waste collection companies such as GAEA, CINTRI and others. These companies are criticized for their limited access or service provision to a limited number of areas, mostly and partly in 1-2 Sangkats of the municipality. Furthermore, they have only collected waste from the bins and markets, ignoring waste on public streets. In this situation, a few municipalities have so far arranged their own workers to collect waste from the streets under a "City Clean Contest" project or a "Clean City Program". This clean city program of the government is on-going and continuous.

Very few municipalities such as Stoeung Treng and Battambang created their own units for solid waste management. It is a public and non-profit entity in charge of waste management. It works and cooperates closely with people through an initiative from NGOs or external support program (see Demonstration Case #2 below).

2.2.2 Role and Responsibility of M/D administrations

a) Council

The M/D council has generally been left out on the management of solid waste. Although eleven, or 31%, of surveyed M/D mentioned that they have issued some legal instruments, only four have involved their councils in only 1-2 legal instrument approval. This instrument adopted by the council is more related to instruction on household waste disposal, segregation, determination on waste bin locations, dumpsite and timeframe for waste collection.

Councils in most M/D, however, have raised this waste management matter and encouraged their BoG to work with line offices and commune/Sangkat councils on public education and awareness rising.

b) Board of Governors

M/D BoGs are reported to have been involved more on this matter. 13 out of 36 this surveyed M/Ds (or 36%) claimed that they had educated community and the public on urban solid waste management. Three amongst them (or 17%) further emphasized that solid waste issues had been integrated into M/D 5-year development plans and its 3-year rolling investment program. The same number (17%) had monitored waste management company performances on a regular basis. Four or 11% had checked the "burden" book of the companies.

About 20% of M/D surveyed claimed that they had organized an annual environmental day. Approximately the same number had conducted meetings with their commune

councils on the implementation of waste management activities. Very few had developed monthly schedules on waste collection campaigns (physical monthly waste collection) with their commune councils. One of them is Preah Sihanouk Municipality, which works with its five Sangkats to routinely conduct physical cleaning campaigns in one of their five Sangkats every weekend. Once a cleaning site is proposed and decided upon by the respective Sangkat Council, the Municipal Administration organizes this physical cleaning event by inviting between 40 to 60 officials, youth, NGOs as well as tourist agency association representatives to participate.

Positively, seven municipalities or 19% of the total 36 surveyed or 27% of 26 municipalities in Cambodia have signed contracts with waste collection companies or market fee collectors. Provincial administrations that have delegated this contract signing to their municipality are reported to have allowed these municipalities to monitor and deal with the companies more closely. Out of these seven, one municipality signed the contract on an annual basis, the rest had a contract of between 15-30 years. Still, monitoring on the implementation of waste collection contract was only carried out when required by provincial administrations or higher level bodies.

M/D administrations, in principle, claimed that they could undertake vast of responsibilities given that their provincial administrations and provincial departments of economy and finance and of environment would allow and support them financially and technically. These responsibilities include monitoring and checking the implementation of service contracts with the private sector, such as on schedule and means for waste collection, dumpsite environmental protection, dissemination and education activities on solid waste and sanitation issues to the public, facilitation of conflicts, as well as mobilization of community participation.

c) M/D Office and Office of Environment

At M/D level, there are two types of line offices. M/D administrations have three offices under its direct command. They include the office of finance and administration, office of commune/Sangkat support and planning, and inter-sectorial office. The latter is presently understaffed and resourced throughout M/D in Cambodia.

The other type is the line ministry office. Under this waste management mandate, the provincial department of environment works on behalf of its ministry without further delegation to its offices at M/D level. The provincial control by the department is understandable due to limited capacity of its M/D line office. 14 M/D out of 36 claimed that they had neither an office of environment nor environment-related staff. The rest have between 1-4 environmental staff. Five amongst these complained that their staff lacked capacities while the others emphasized the lack of adequate working facilities, office equipment and materials.

The above offices reported that they had been the arm of the M/D administration and their line department to monitor performance of waste collection company performance, dissemination of relevant legal documents and promotion of community awareness, installation of environmental signs and preparation of relevant reports to the province and provincial department of environment.

2.2.3 Role and Responsibility of Private Sector

As explained in the survey limitation, private sector being market fee collector or waste collection company had not been invited to participate in this exercise. Nevertheless and due to its important role for waste collection, it is essential to briefly describe on their involvement based on information given by M/D administration.

Private sector involvement on waste management for urban areas has become attractive since 2003 after the Mol-MoEnv joint Prakas No.80 to delegate solid waste management to provinces and municipalities (now, the Capital and Provinces of Kep, Pailin and Preah Sihanouk). Except for Phnom Penh where solid waste collection was given 50 year contract to CINTRI by the Council of Ministers (CoM) in 1990s, this similar type of contract for major provincial towns could be traced back from 2nd half of 2000s.

In big cities such as Siem Reap, Kampong Cham and Preah Sihanouk, waste collection companies such as CINTRI and GAEA signed agreement directly with the provincial governor. This contracting mode has been reportedly reached without public bidding, but some great levels of influence from central government, in particular MEF, who claimed that it had only acted upon request from the provincial governor. In practice, SNAs view MEF (department of state assets and property) as having the final decision because it reviews and endorses waste collection contract before signing (by respective provincial governor and by company).

In less urbanized provincial and district towns, waste collection function has been undertaken by market fee collectors with agreement signed at provincial level. The provincial department of economy and finance is reportedly involved and influenced greatly on this type of contract awarding.

Literally, these private contractors or service providers are given the task of solid waste collection from specific points, transportation and dumping them at a site assigned by the provincial authority. Their other important role is fee collection based on set tariffs described in the “burden” book issued by MEF/DEF. They are not in charge of waste management which includes the above tasks and many others such as cleaning and collecting waste from public areas or streets, undertaking proper technical environmental and hygiene activities at the dumpsite or public education campaigns. In other words, they have only been implementing their waste collection role for areas where people are willing to pay.

A big difference between a waste collection company and market fee collectors is that the latter started assuming their waste collection role from much smaller areas, typically from the markets and its surroundings. Based on people's willingness to pay and profitable margins, the market fee collector expanded its service provision coverage. This type of service provider has usually had light equipment and smaller size of workforce for waste collection.

A waste collection company is better equipped, and has usually entered a long contract with the relevant authority. Surprisingly, market fee collectors collecting waste in some districts have also long contracts (e.g. In Prasat Sambo in Kratie for 16 years; Chouk in Kampot for 22 years etc.).

2.2.4 Quick synergy of roles and responsibilities of different actors

Table 2: Roles and Responsibilities of Actors by Sub-Functions for Waste Management

Sub-function	Council	BoG	DoEnv	DEF	Private	Others
Planning				X	XXX	
Dumpsite Identification		X	X			
Budgeting				XX	XXX	
Contracting		X (7)		XX	XXX	
Implementation		X	X	XX	XXX	
Fee tariff setting & collection		X		XX	XXX	
Support & coordination		XX	XX	XXX		
Monitoring & Oversight		X	X	XXX		
Evaluation		X	X	XXX		
Education		XX	XX			

XXX: Heavy Involvement

XX: Some Involvement

X: Little involvement

2.3 Cooperation Modalities

2.3.1 Contracting Modality

The solid waste management function has been referred narrowly to waste collection in most M/D and as mentioned above, it has been assigned to either market fee collectors or waste collection companies. From the survey, 26 out of 36 M/D or 72% have had this contracting modality. Over half of these 26 are market fee collectors while CINTRI and GAEA are the only waste collection company having contracts in more than one M/D.

Most of these contracts are signed with the provincial administration. They have an implementation period between 1 to 30 years. Ten out of these 26 contracts last between 15-30 years while 11 other contracts are only valid for one year. Surprisingly, Kampong Cham where CINTRI has provided waste collection services reported as having an annual contract, given that contract with this CINTRI normally last far longer than one year time. Variation of contract duration has reportedly been based on negotiations and lobbies of the company with respective provincial governor and MEF. To demonstrate, CINTRI has lobbied Preah Sihanouk

Provincial Administration to request to MEF for another 30 year contract extension when its current 15-year one expires by the end of this year (2015). In any cases, contract awarding has not been open and is not available for the public's review.

2.3.2 Cooperation With Provincial Administration

Since provincial administrations (PA) have been assigned with the solid waste management function (under Joint Prakas No. 80, 2003), M/D being a unit under this (PA) was always guided by PA to undertake some tasks. At present, they are member of a provincial committee on urban and market beautification, sanitation, public order and environment. They are to receive instructions from and raise issues and requests to PA and the committee. They have implemented activities as guided by and reported on this matter to PA and the national level. In some cases, M/D lobbied its respective PA for the creation of M/D level mechanisms (such as for the waste management unit in Stoeung Treng and community waste collection volunteers in Kampot) and for formulation of M/D level legal instruments.

2.3.3 Cooperation With Neighbor SNAs

Majority of 36 surveyed M/D (19 out of 36 or 53%) have reported no relation or cooperation with their neighbor SNAs. Ten out of 36 or 28% claimed that had joint waste dumping site. One of these surveyed M/D has participated with its neighbor commune and district administrations on solving issues related to neighboring villages dumping their waste into a cross-boundary canal. Conflict resolution actions include meeting to discuss solutions and joint public dissemination of environmental impact from this waste dumping activity.

2.3.4 Cooperation With Commune/Sangkat Councils in their Jurisdiction

M/D has reported to have been working closer with their commune/Sangkat councils. Main joint activities between these two tiers of administrations include:

- Conduct public educational and dissemination activities on impact from (anarchic) waste disposals, environmental poisoning and waste collection fee payment obligation;
- Dissemination of relevant legal instruments;
- Installation of educational signs on prohibition for public littering;
- Identification and cooperation on dumping site and temporary waste store arrangement;
- Guide C/S council to monitor market fee collector on waste collection performance;
- Organization for waste cleaning day and campaign.

In some municipalities such as Kampot and Stoeung Treng, the establishment of community waste collection volunteers on organic waste collection has also been done through close cooperation with C/S councils. In Stoeung Treng Municipality, the municipal waste management unit has worked with C/S councils to update permanent resident books/lists. Fines on public littering were also carried in these municipalities through cooperation with their C/S councils.

2.3.5 Cooperation With Private Waste Collection Companies

Cooperation with private service providers has reportedly been problematic. Twenty six out of 36 surveyed, or 72%, said they had no relationship at all. Only three (Kampot, Chouk in Kampot Province and Kampong Svay in Kampong Thom) reported that they had received monthly activity report while 29 others received no report at all from these companies. A small number of M/D claimed that they have had some relationship with these companies through their district office of environment.

A few municipalities discussed fines for littering in public places with these companies, but fell short of mentioning any cooperation on implementation of these fines' measurements. Kampong Cham Municipality claimed that it had received a report on the number of service users and service provision coverage from CINTRI while all surveyed M/D agreed that there had been no financial reports shared by these private companies.

2.3.6 Technical and Financial Support Received by M/D

M/D administration has not received much support in the past due to centralized and deconcentrated mode of waste management function. Twenty five surveyed M/D reported of having no financial and technical support received. Six other M/D claimed that they had received some technical support from their provincial department or the office of environment. Five M/D mentioned that they had received technical and financial support from development partners and NGOs. Kampot, Chouk in Kampot, Stoeung Treng Municipality, and Stoeung Sen in Kampong Thom mentioned that they had received finance support as well as capacity support for composting techniques, waste segregation and trash bins, waste transport truck (Stoeung Treng) and construction of dumping site. A smaller number of M/D has also received capacity support from provincial department or office of environment on composting and public awareness raising.

2.4 Funding and tariff calculation for solid waste management

2.4.1 Funding and sources of funding for solid waste management

It is generally understood that all public sector's funding in Cambodia is far from meeting demands. For the solid waste management function implementation it is, however, slightly different. Most waste collection companies have come to strike deals with central and sub-national governments based on their profit margin calculation from service fee collections. In this calculation, mapping out sources of waste is a key step.

In this aspect, all M/D reported that funding for waste management has come from the service user's fee. 10 out of 36 surveyed M/D mentioned that they had received some funding from national budget while 17 complained that they had never received a budget from the

government for this function. But when verified by the survey, those M/D receiving funds from the central government clarified that this was 2015 budget which had not been disbursed. This means that there has been only indicative budget figure as outlined under Joint Prakas No. 073 dated February 2015, but no actual expenditures due to some reasons.

In a few M/D such as Kampot, composting from organic waste does provide some additional budget for waste management. In a few other M/D including Stoeung Treng and Kampot, development partners and NGOs do complement some financial support. Stoeung Treng Municipality has also received 3 million Riel from its provincial administration annually since 2011-2012 for the operation of its municipal waste management unit.

16 M/D confirmed that they had no budget for waste management and had left this in the hands of the company or provincial administration. In carrying out their waste management activities, they have only participated with the provincial administration when asked.

2.4.2 Tariff calculation for solid waste management

Most of the 36 surveyed M/D reported that they had not been involved in determined waste collection fee, but pinpointed to the provincial department of economy and finance together with the warding waste collection companies. A minority number of M/D has observed some negotiations with the service users (i.e. households or businesses). Kratie municipality mentioned that Sangkat council had conducted tariff fee discussion with service users before a fee proposal is submitted to the provincial department of economy and finance for final decision on fee setting. Stoeung Treng reported that its municipal council had consulted with people before determination on waste collection fee tariff which was signed by its municipal governor and endorsed by the provincial governor in 2010.

Stoeung Treng claimed that it had calculated fee based on volume of waste produced. However and according to its waste collection, there is no 'proper' formula for fee service tariff of waste management, i.e. the current method of payment that ranges between USD 0.8 to USD 30 per month in this locality. In all other M/D waste tariff fee calculation was purely based on types of businesses and residential houses. In any case, fees for waste collection has been reportedly higher than set in the "burden" book. In many urbanized municipalities, waste collection fees for 4-5 star hotels could be up to 20 times higher than the set tariff fee shown in the "burden book".

2.4.3 Fee collection

Since fees from waste collection have been the main funding source for waste management, the fee collection approach and level of payment received are critical. As reported by M/D administrations, waste collection companies had always blamed service users for not paying and used this as the main cause for poor performance.

To force service users fulfilling their payment obligation, waste collection fees have been integrated into the monthly electricity bill. The aim was to cut the electricity if no waste collection fee is made. This collection mode was, however, short-lived. Provincial and capital administrations have turned away from this decision based on people's complaints for poor performance of the waste collection companies. Nowadays, waste collection contractors are reported by nearly all surveyed M/D administrations for deploying their own fee collection staff. In Stoeung Sen Municipality of Kampong Thom Province, village authority has been reportedly taking part in fee collection, so that service users are complied with their fee payment obligation.

2.4.4 Service coverage expansion plan

Due to rapid urbanization leading to health impacts from poor urban sanitation, waste collection has become a “hot” topic for most M/D administrations. As mentioned at the start of this Chapter, waste management matters have become regular discussion points at M/D council meeting agenda from the establishment of M/D councils (2009). Ineffectively and without clear function on waste management assigned to them, councils could mostly encourage their BoG to work with line office and commune/Sangkat councils on public education, awareness raising and monitoring performance of waste collection companies.

Expansion plans for waste collection have also been discussed by the majority of the surveyed M/D administrations (36). The survey, however, could not get evidence of implementation of these expansion plans. Furthermore, seven M/D informed that they had left this expansion matter to the company who had always confirmed that they were ready for any expansion given as there is enough demand and willingness to pay for the service.

2.5. Case Demonstration

2.5.1. Case Demonstration from Preah Sihanouk Municipality

Demonstration Case #1: Preah Sihanouk Municipality' Solid Waste Management

About the Municipality (2014 statistical data)

Number of Sangkat:	05
Population:	above 80,000
# Households:	over 17,000
# Restaurants, Hotels and other Entertainment Facilities:	over 1,600
# Tourists in 2014:	1.3 million
# International Tourists (2014):	about 390,000

Key features of Solid Waste Management

Volume of Waste per regular day:	110-120 tons
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Volume of Waste per special day:	120-140 tons
Service Provider:	Private (CINTRI)
Contract Period:	15 years
Contract Expiry Date:	31 December 2015
Contract Administrator:	PA
# Public Civil Service Personnel of DoEnv:	22
# Public Civil Service Personnel of Municipality Office Env:	0
Service Provision Coverage:	04 Sangkat
Dumpsite:	62 hectare
Distance to Dumpsite:	23 kilometers

Issues with Waste Collection Companies (as summarized by key provincial, municipal administrations):

The provincial governor signed a 15 year contract with another company (not CINTRI) who had transferred its service provision rights to CINTRI in 2005. Due to changes of provincial governors, CINTRI has operated this waste collection task for the last 10 years with minimal relation with provincial and almost no cooperation with the municipal administration. Concrete issues include:

- Small coverage, not from all Sangkats and not from all public streets;
- Not all waste collected and not cleanly collected;
- Collection on daytime (not nighttime), no schedule and postponement (sometimes from 1 day to 1 week);
- Poor means of transports (13 trucks regularly broken with leakage);
- No cooperation with local authorities, centrally managed from Phnom Penh (in particular, on operation budget);
- Fee payment coverage only between 30-40% households using services; Hotels, however, have paid a lot more than required in the “burden” book. As reported by municipal BoG and council, some 4-5 star hotels paid up to US\$3,000 monthly while the set fee in the “book” was only between USD100-150. This was also one of the reasons for poor performance (at the public places) of the company due to too much prioritizing for big hotels and restaurants.
- Now at the end of this 15 year-contract, CINTRI could not transferred 05 trucks, 1,000 trash bins (and land for waste temporary store – for segregation – dumpsite) to provincial or municipal administration as mentioned in the original provision of the contract;
- CINTRI service provision will come to an end on 31 December 2015 – no replacement has been found as of 20 November 2015

Actions/Practices

With Sub-Decree No. 113 in place and waste having become a high priority, the municipal administration has undertaken a number of key activities since September 2015. First, waste

management has been discussed at almost all municipal council meetings. The municipal administration together with provincial department of environment, provincial department of economy and finance have convened a number of meetings to discuss issues with CINTRI and prepare a plan and budget (of 225 million Riel/USD 56,000) allocated to the municipality under the Inter-ministerial (MoI-MoEnv-MEF) Prakas No.073 dated 06 February 2015.

Second, the municipal administration and the provincial department of environment have worked with the five Sangkat councils to recruit 65 individuals from poor families to provide labors for cleaning and collecting waste from public places and streets to be transferred to CINTRI collection points. Each of the five Sangkat has recruited between 06-20 workers (based on their needs). Each worker receives 470,000 Riel (or USD117) monthly for their work from 25 September 2015 onwards. These salaries have been budgeted for from the 225 million Riels allocated to the municipality by the national government for 2015. The contract covering payment to these city cleaners has been signed between the municipal governor and director of provincial department of environment. Provincial department of economy and finance as well as the chief of provincial treasury have been witnessed and agreed to this arrangement. This whole process has been followed up and agreed by the municipal council.

Third, the municipal administration has mobilized resources from generous individuals to buy 13 cleaning equipment and tools (such as grass cutting machines, waste collecting cart, uniforms etc.) for the workers to operate. Fourth and under coordination of the municipal administration, each week a physical cleaning campaign is organized in one of the five Sangkat. The event is participated by 40-60 officials, youth, NGOs as well as tourist agency association.

Implementation bottlenecks:

It is clear that there have been efforts at different levels in tackling waste management matters. At provincial and municipal levels, Preah Sivanouk Municipal administration, provincial departments of environment, economy and finance and the treasury with strong support from provincial authority, 65 trash collection workers had been hired to work on daily basis. The Municipal Administration has also mobilized additional support from private individuals in terms of tools and equipment from trash collection. At national level, the adoption of the Joint Prakas No. 073 in February 2015 and Sub-decree No. 113 in August 2015 aimed to support all these kinds of actions.

However, there were still many problems. The most challenging matter has been that function and budget for waste management have been assigned to the municipality without clear guidelines and technical support for work planning and budgeting. On the positive side, this transfer of waste management function and budget made Preah Sihanouk Ville Municipal administration and other concerned stakeholders tried their best to understand their roles and responsibilities and taken quick actions. This effort has been praised by many individuals in Preah Sihanouk Province and ministries including the MoEnv who bears this responsibility. The negative part has been that the arrangement by the municipal administration through the

department of environment for the payment to 65 workers has been blocked by the directorate of national treasury under MEF July 2015 Circular No. 800. The payment block has been based on prohibition of public office to be contracted by another public office.

With this bottleneck, the municipal and its other provincial stakeholders have made temporary arrangement to pay the workers from their private savings since 25 October 2015. It is unique and could only implement with high risk of no refund. This reverse decision of the National Treasury/MEF and municipal practice of payment from own pockets have as far frightened, hence discouraged the other 25 municipalities from implementing this newly delegated function on solid waste management in urban areas.

2.5.2. Case Demonstration from Stoeung Treng Municipality

Demonstration Case # 2: Stoeung Treng Municipality's Solid Waste Management

About the Municipality (2015 statistical data)

Number of Sangkats:	04
Population:	above 30,400
# Households:	over 5,600
# Restaurants, Hotels and other Entertainment Facilities:	about 75
# National Tourists (2014):	114,467
# International Tourists (2014):	8,745

Key features of Solid Waste Management

Volume of Waste per day:	about 30 tons
Service Provider:	Public (Waste Management Unit)
WMU's Operation Start:	January 2011
Recognition of WMU by Mol:	August 2013
Accountability Line of WMU:	MA & PA
# Public Civil Service Personnel of WMU:	2 (1 from MA, another from DoEnv)
# Contract Personnel of Municipal WMU:	13 (06 women)
Service Provision Coverage:	02 Sangkats (out of 4)
Monthly fee collection:	between USD 3,500 to USD 3,750
Dumpsite:	147 hectare
Distance to Dumpsite:	12 kilometers

The Municipal Waste Management Unit

Stoeung Treng Municipality is one of very few municipalities in Cambodia that manages solid waste directly through its own established waste management unit, and not through private service providers (i.e. contracting modality with a waste collection company or market fee

collector). It should be noted that prior to the establishment of the Municipal WMU in early 2011, recognized by Mol in 2013, solid waste collection in Stoeung Treng Town was contracted with a private contractor. Under this service provision modality, waste collection in the Town was not done properly and faced with huge criticism. Until early 2010, a Spanish NGO with the name IPAD worked directly with an NGO called SCARO trying to solve issues on this waste collection. Still, waste collection mounted a lot of problems at that time.

From February 2011, IPAD decided to work directly with Stoeung Treng Municipality through the establishment of a municipal waste management committee at the beginning and establishment of the municipal waste management unit recognized by the provincial administration in August 2012 and by Mol in August 2013.

Presently and with the end of IPAD support, the Municipal WMU operates as semi-public entity with two public civil servants, one for the municipal administration and another from the provincial department of environment, and 13 contracted staff and workers who have gained experiences from being NGO technical staff in the past and new recruitments (for replacement). Amongst the fifteen personnel, four are in charge of all office works, three collect fees, two work as drivers and five as workers. WMU has two (old) waste transportation trucks and a bulldozer (for dumpsite management). Revenues from waste fee collection (about USD 3,600 per month) together with annual contribution from the province administration of about 3 million Riel/USD 750 have been the main source for WMU operations.

With RGC's commitment to transfer waste management function and accompanying resource to the municipality in 2015, MEF guides all municipalities to only contract private companies for waste collection. In this regard, the municipality has so far convened a number of meetings with relevant provincial departments and key stakeholders to search for solutions to separate responsibilities between to be-contracted private waste collector and its own WMU. It is so now agreed that private company shall collect waste from public places including markets, leaving WMU to collect from residential households and other businesses. This new agreed approach is, however, not yet implemented.

Implementation bottlenecks:

Regardless of the nature of service providers (waste collectors), issues related to solid waste collection in different municipalities are quite identical:

- People generally have limited knowledge on urban environment, particularly on waste management, leading to lack of commitment to participate appropriately;
- About 40% of residents do not pay monthly collection fees. Those are people living in away from the main municipal streets or inner (small) streets. They only dispose their waste to nearby public places such as along the streets, in the parks and open spaces, near-by markets, in the river and its embankments at night time or at the disposal areas, but outsides pick-up schedules;
- Lack of regulation or by-laws for anarchic and public littering;

- With rapid urbanization and increase of municipal population, waste volumes are increased without segregation and recycling measures;
- With limited capacity, the Municipal WMU only collects waste from residential households and markets, and not from other public streets such as parks and streets;
- Lack of coordination amongst different agencies;
- Fee collection is also problematic with businesses such as wood factories and steel enterprises due to big waste volume (no suitable means – trucks to collect) and refusal to pay proper/higher fees (based on waste volume);
- Tariff fee setting approved by the municipal governor and provincial governor in May 2010 is too low and no longer appropriate, hence revision is needed;
- Worker's turnover is high partly due to no health insurances provided to them;
- Weak and limited cooperation and participation of people and businesses (in adhering procedures and schedules for waste disposals);
- While new RGC's commitment on solid waste management with its injected resources to the municipal administration is positive, restriction on expenditures and its eligibilities (for only private company) hampers WMU from using this government resource, hence expanding its service provision scope.

Chapter 3: Challenges/issues

Waste and urban environmental issues have become one of a few most pressing problems (amongst those include traffic accidents and drugs) and are now discussed on daily basis in public conversations, mass media and social media reports and policy dialogues. Despite blaming on rapid urbanization, issues of waste management could absolutely not be resolved by slowing down this growth pace. From the survey, there are fundamental challenges to be considered for waste management function implementation. These challenges include amongst others centralized mode of management, inadequate and inappropriate legal framework, ineffective enforcement of legal instruments and inefficient human and financial resources.

3.1. Centralized mode for solid waste management

Despite some years of promoting decentralization reforms, Cambodia has faced great challenges in promoting local initiatives and proactive measures for solving local problems. As for solid waste management, most surveyed M/D administrations still referred to their provincial administrations for being responsible for the problem, their provincial department of economy and finance or even MEF for inappropriate tariff fee setting, and together with MoEnv for ambiguity of existing legal framework for waste management, waste collection companies for limited or no cooperation with local authorities (also due to centralized mode of management – everything is decided from head office, normally located in Phnom Penh), and the people for inactive participation (also partly because they believe that local and central authorities shall know what to do).

From this centralized mindset and being obedient, M/D administrations have refrained from being actively engaged or accepting any responsibility. *As one put it “why municipalities are assessed against the Clean City Contest set criteria when powers are in the hands of PA and central ministries?”* Other surveyed M/D complained that they could only act (including signing of contract with service provider) as instructed by their PA and had always asked for follow-up orders before undertaking actions. This challenge shows the ambiguity of roles and responsibilities of different government units, prompting many SNAs to rather ask and wait for more instructions and guidelines from the above before taking any actions.

Meanwhile, more detailed guidelines and instructions also mean limitation of SNA's capacity in identifying suitable local solutions. In other words, national guidelines prevent local initiatives to grow, restrict SNA from picking up a locally right and adequate option based on their local means, opportunities and economies (e.g. how can national fixed tariff rates be right for both Preah Sihanouk Municipality where there are over 1,600 high class tourism facilities, and Stoeung Treng Municipality with only about 75 of low-class tourism facilities).

3.2. Inadequate or inappropriate legal framework

Avoiding from committing mistakes, M/D have rather waited for instructions and guidelines for any step forward. Any attempt to be proactive on problem solving has always encountered with obstacles. As in the case of Preah Sihanouk Municipality, attempt to implement 2015 budget for waste management as detailed in the Joint Prakas No. 073, dated February 2015, has been blocked by MEF using Circular No. 800 dated July 2015.

This issue demonstrates how subnational administrations are scrutinized by centralized ministries by issuing follow-up legal instruments. It is clearly the case of follow-up regulations being formulated to implement the newly adopted Sub-Decree No. 113. One of the three follow-up regulations is on tariff setting. If adopted is what is being drafted, the highest monthly tariff is set at USD150. This means that some 5-star hotels in Preah Sihanouk which are willing to pay up to a few thousand US Dollar for a good waste collection service should only pay this new maximum fee and accept poor services.

With this kind of control from MEF, M/D blamed that there had been a lack of legal instruments for solid waste management function assignments. In contrary, a few other M/D believed that they had had capacity to try to understand and implement legal instruments (such as Prakas No.073 and sub-decree No.113) if no further contradicting legal guidelines are expected. From this ambiguity of legal instruments, some M/D do believe that rules (especially on finance and accounting) are not very much in the paper, but rather in the mouth of DEF and provincial treasury. If there is clear set rule (in the book/paper) and adequate training, mistakes could be avoided.

3.3. Ineffective enforcement of legal instruments

Generally, violating rules and codes is common in Cambodia, as in the common cases of daily traffic accidents and regular work absences. People, including officials, have somehow accepted this way of life. As for solid waste management, charging over the set tariffs, avoiding payments, escaping from fines due to unwillingness to instill monitoring and law enforcement mechanisms or negotiation for lower fines, as well as limited understanding on rules and regulations are of great challenge. Political cloud is another reason (or rather excuse) for not enforcing rules. As one put it *“people will not be happy with our party-management if we force them to pay or stop them from burning waste at their home”*.

Waste collection companies are reportedly ignoring rules of law as well. As in the case of waste collection company in SHV, trucks, trash bins and likely waste temporary storage land might not be returned at the end of this 15 year contract. Actions to be taken against existing waste collection companies will have to be consulted with highest level of government due to the nature of waste collection companies (being associated with high level officials). Law enforcement in this context is inevitably problematic.

3.4. Lack of human and financial resources

As mentioned in the findings, 14 M/D do not have staff or an office of environment at the moment. For M/D administrations having M/D office of environment, 1-4 staff have been listed in the payroll, but their physical presence in the office is unclear. Other M/D complained for limited capacities of their staff and lack of appropriate office facilities and materials for operations. This is one of great challenges faced by M/D when assigning waste management function. Presently, the provincial department of environment is providing technical function based on instruction of their provincial administration.

Financial constraints are obvious. Presently, companies are complaining about people using services not paying fully, but remain quiet on businesses and individual's willingness for higher pay. Regardless amounts received by the contracting company, services are limited to collection, transportation and dumping from and at specific points, and not for cleaning all public places, awareness programs and/or environmental protection activities during collection, transportation and at the dumpsite.

With additional resources provided by RGC in 2015, additional activities have been planned by M/D. Apart from being minor in amount, disbursements of these budgets have been problematic and require immediate resolution.

Chapter 4: Conclusion and Recommendations

From this rapid survey and discussion with M/D concerned, some key points of conclusion and suggestions are drawn for consideration of the National League of Local Council for further actions.

4.1. Conclusion

First, there are legal instruments on solid waste management that have been referred to in this survey. The one being in effect is the Joint Mol-MoEnv Prakas No. 80 while the newly Sub-decree No. 113 is still in parole mode. A few M/D have tried to implement this without further delay, but faced great challenges in translating it and mobilizing support, in particular from their PA and DEF/MEF who have implemented this function in the past. Many M/D administrations have therefore waited for further guidelines and instructions for this functional delegation implementation.

Nevertheless, it is clear that broad policy and legal instruments (i.e. no further detail regulations) also mean allowing for nurturing ideas and initiatives. As demonstrated in SHV case, when issue strikes, broad policy and legal instruments do place pressure on (active) M/D or sub-national administration in general to try and understand existing policies and legal biddings. For instance, discussion most like starts from “if there anything preventing us from moving forward in implementation or solving this problem...”. This means that with some good legal advice, M/D could have some opportunities and flexibilities for implementation.

There are different types of service contracts, especially with regard to length. Many surveyed M/D administrations have now been seeking a way out either through termination of these contracts or changes of authorized party (from PA to M/D). For 1-year and/or soon expiring contracts, options are wider open provided that M/D are capacitated for this waste management function.

It is clear that there are different modes of implementation, from out-sourcing of service delivery to self-management (i.e. in Stoeung Treng), and/or combined (such as in Kampot, Preah Sihanouk, Battambang). In any case, out-sourced companies have a narrow function in waste management while local administrations bear wider responsibilities and are always the ones being blamed for poor performance.

Different practices have enabled different M/D to gain different capacities (such as for by-law or local legal instrument formulation) and instill for different results (such as the ranking for Clean City Contest, mobilization of additional fund from composting etc.). More importantly, different M/D with different level of demands have taken initiatives differently (in SHV, annual volume of 1.3 million tourists could trigger all kinds of interventions to maintain and improve sanitation situation).

Shortfalls and limited capacities on human and financial resources are challenging. From the survey, however, efforts for different resolution actions and people's willingness to pay present great opportunity for future improvement and financial self-reliance. Combined with international lessons, experiences and inputs, M/D administrations could quickly be capacitated to undertake this solid waste management function in an effective and efficient manner.

4.2. Recommendations

Two types of recommendations are proposed; 1) for "good" practice documentation and execution of RGC's 2015 financial commitment; and 2) National League Actions to advocate for decentralized solid waste management.

As for "good" practice documentation and the implementation of the RGC's financial resource commitment in 2015, the Joint MoI-NCDDDS-MoEnv-MEF working group should conduct:

- In-depth studies on good practices and challenges faced by different modes of actions. From this survey, Stoeung Treng should be studied on arrangement of municipal waste management unit, tariff fee calculation approach, setting process and its effectiveness. Stoeung Sen and Kratie should also be discussed on approaches of setting up service fee and its collection mode.
- Additional studies on good practices in the region and elsewhere are complementary for this effort to promote effective waste management;
- Mobilize teams composed of different technical officials from MEF, Treasury, MoEnv and NCDDDS to support and facilitate present obstacles faced by M/D on the 2015 disbursements;
- MEF and MoEnv should guide their provincial line departments to provide full support to M/D planning and budgeting processes and its execution;

For the promotion of decentralized solid waste management, the National League of Local Councils will need to work closely with joint MoI-NCDDDS-MoEnv-MEF working group and advocate for real devolution, allowing for discretionary authority given to M/D to manage local matters such as waste and related urban environment.

It should be noted that one of these survey objectives is to present its results for national policy makers in supporting the development of proper waste management policies, particularly legal instruments and technical guidelines to implement the newly adopted Sub-Decree No. 113. In this regard, the National League will take the following recommendations to NCDDDS, MoEnv and MEF working group for in-depth discussion and appropriate actions:

- Promotion of Decentralized Approach (legal framework and its implementation)

While the expedited formulation process of relevant guidelines on M/D delegated waste function implementation is critical, allowing different locally identified solutions should be

considered. It should be noted that decentralization of service provision to SNAs has been mostly triggered by poor performance of centralized or regional government agencies due to limited capacities of central or regional governments and/or uniqueness of local situations. In some literatures, decentralization of service provision is a primary objective for improvement of service delivery through enhancing democratic accountability. In other realities, this simply means that central and/or regional government agencies have limited capacities in serving or satisfying the people on a particular service. To put it simpler: they no longer know what to do to improve the service delivery. Does this sound as if they need help for ideas? If this is correct, why are central and/or regional governments still trying to provide detailed guidelines on what they do and cannot know?

In any cases, allowing space and flexibility for M/D in solid waste management, which includes the selection of waste collection modalities, approach and formula for fee setting (based on real consultations with different target groups), creation of appropriate mechanisms for strengthening service user-service provider accountability should be considered and promoted. Meanwhile, the joint inter-ministerial working group should enhance its oversight/legality check activities as well as gathering lessons from the ground. If the situation requires more detailed guidelines, local experiences and lessons should form fundamental inputs for such guideline formulations.

Undertaking legality check or oversight activities of the national inter-ministerial working groups also requires appropriate capacity building to SNAs. Municipal and district councils need to understand decentralization policies and relevant legal instruments before being able to guide their executive branches on program implementations. In solid waste management, M/D need to have full understanding of the Sub-Decree No. 113, Inter-Ministerial Prakas No. 073, MEF Circular No. 800 and other relevant guidelines for this newly delegated function. Equally important, they need legal advice and protection when contracting service providers (in this case, waste collection or waste recycling parties). In this regard, national level agencies should enable M/D to employ decentralization and legal experts and/or obtain legal advices for these purposes.

- Human and Financial Resources

While adequate and “right” legal framework is necessary in promoting clarity in terms of roles, responsibilities and obligations amongst different actors, operational capacities of M/D are equally necessary. As demonstrated in the survey findings, most M/D do not have human resources or no technically skilled individuals. In this regard, assigning waste management function to M/D requires development of human resource pool at this level. Considering Stoeung Treng as a future solution for some M/D, national ministries should allow M/D to create suitable entities and recruit local experts from different sources (e.g. from experienced NGO personnel, private company personnel and/or public). For M/D that engage private waste collection companies, M/D oversight and M&E roles need to be strengthened. This capacity

building component could be supported by the National League of Local Councils initially through organization of cross-study visits in the country and in the region.

Finally, M/D need financial resources. While solid waste management could generate self-reliant incomes (from fees, fines, recycling and other own sources) in the long term, the RGC's annual resource commitments are required. This inter-governmental transfer portion will have to be adequately allocated based on equitable formula for M/D with less own source of revenues – revenue bases – for greater transfer pool.