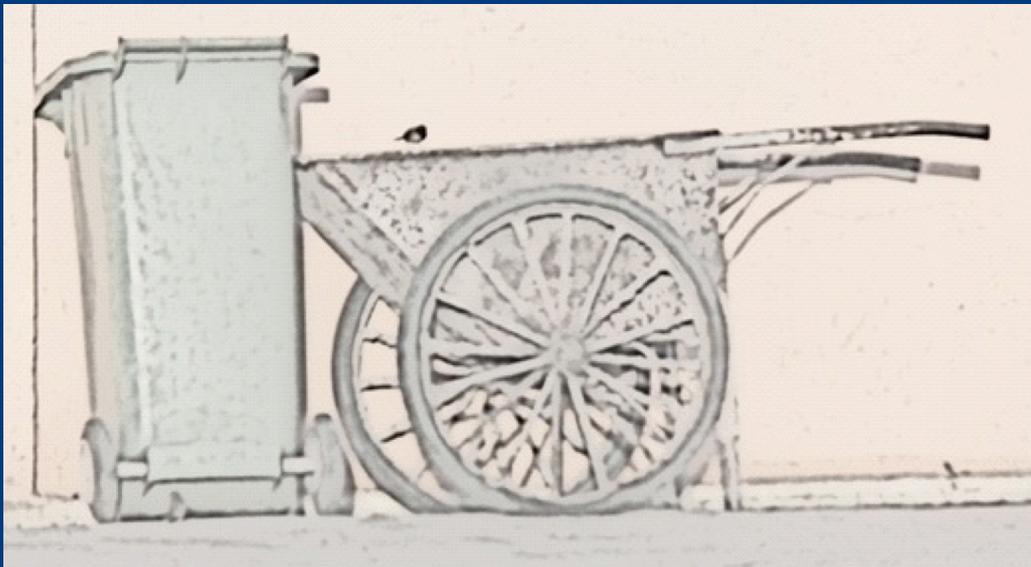


**TA-8566 REG: Mainstreaming Integrated Solid Waste Management in Asia -
Solid Waste Management Team (46248-001)**

Policy and Regulatory Reform Paper **Mandalay**



November 2016

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1. Introduction

The purpose of this Policy and Regulatory Reform Paper is to identify weaknesses in solid waste policies and regulations covering Mandalay by comparing with best international practice to discuss proposed draft policy and regulatory reforms required for sustainable solid waste management in Mandalay. This report should be read together with the Integrated Solid Waste Management Plan.

2. Feedback from Participants in Mandalay Workshop

2.1. Private Companies

Private companies were interested in a strong national framework for both solid waste management and public-private-partnerships so as to provide more protection for both foreign and local investors. National laws needed to be undertaken on a highly professional basis and with capacity for tangible enforcement.

There was particular focus on local law where enforcement of solid waste laws and were viewed to be somewhat ineffective and violation penalties were viewed to be small and trivial.

2.2. Non-Government Organizations (NGOs)

NGO feedback indicated that solid waste law is important to enact at both the national and local government level. It was important that laws defined clearly both rights and obligations of parties to the law, as well as enforcement and penalties.

NGO feedback also highlighted the need for enforcement which required public cooperation.

2.3. Cleansing Department as Regulator

The MCDC Cleansing Department indicated that municipal solid waste rules and regulations were not being abided by. Citizens are still throwing garbage into drains or near public places such as bus stops. Education of citizens remains important but it will take time for behaviour to change.

A particularly difficult policy in need of more immediate change is one that requires the Cleansing Department to enter properties with accumulated solid waste and to remove waste at no cost.

The Cleansing Department does respond to citizen complaints on solid waste related violations but existing MCDC cleansing regulations give it little power to enforce rules and regulations.

3. National Framework for Solid Waste Management

3.1. Present Situation

At present Solid Waste Management (SWM) is not well controlled within Myanmar. It is partially covered by default under some generic legislation but specific national SWM legislation is critically needed. This legislation could then provide the backbone upon which the regulatory environment could be formalized leading into the generation of appropriate policies and implementing rules.

3.2. Objectives for Future

The legislation structure should include at least the following major components:

- General provisions which set out the purpose of the act as well as the general declaration of the policies contained therein, such as protection of public health and the environment together with environmentally sound utilization of resources. This section may also suggest targets and guidelines for waste minimisation, reuse, recycling and recovery targets with specific implementation dates.
- Definitions would then have to be described, including the differentiation between reuse, recycling and recovery.
- The institutional mechanisms would then be described. It is common to establish a National Solid Waste Management commission or equivalent, usually under a senior portfolio such as the office of the president. This commission would be tasked to provide the overall guidance for the implementation of the Solid Waste Management legislation and associated regulations and policies. This is essential as quite often there is overlap between the Solid Waste Management legislation and other acts such as those covering public health and environment in particular. This is also an opportunity to involve nongovernment environmental groups as well as industry to provide a rounded perspective. The commission is responsible for not only policy implementation but also the setting of penalties and other infringement notice procedures.
- Within the institutional mechanisms section, the sponsoring department would also be defined and the legislative powers therein described.
- Part of these responsibilities would be the development of a National Solid Waste Management framework which would include the analysis and evaluation of Waste Management within the country at a prescribed interval, say every 5 to 10 years, and the identification of critical Solid Waste facilities and even municipalities which would need closer monitoring, regulation or support to implement appropriate standards of Waste Management.
- The national legislation may also allow devolution of powers to municipalities to legislate for local control over issues such as ecological labelling of products, mandatory buy back schemes and ordinances or by laws covering banning of inappropriate packaging or the requirement for green building materials. Common elements include the banning of plastic bags within a municipality, or the requirement for biodegradable plastics to be used in sympathy with a regional or national directive.
- Another common legislative element is to agree an overall timetable for the closure of open waste dumps or other facilities that are causing environmental harm or social dislocation. It is not uncommon to establish a central pool of money or access to low cost loans to facilitate these initial upgrades for the most poorly functioning facilities.

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- The national legislation would also state which institution or part thereof has the responsibility for the issuance of permits and approvals for activities such as landfill operation. It is common for the approvals process to be delegated from the department managing Solid Waste to the environment department who would be guided by the general landfill policy rules and regulations, but could also apply specific local operational criteria based on the local environmental knowledge and requirements.
- Specifics of the legislation depend upon the adopted priorities of the central government however. For example some countries prefer to quantify waste diversion targets and other activities such as waste segregation, whereas others prefer to set performance targets in terms of general city cleanliness, generic recycling emphasis and performance activities associated with the final disposal facility.
- The legislation should also facilitate the authority of municipalities to collect Solid Waste Management fees. The legislation can have very short provisions merely stating that municipalities are delegated this power, or more details may be provided in terms of how this can be applied by the municipalities and whether it is just for municipal waste collected from households or whether waste charges can also be levied on commercial and industrial activities, as well as institutional generators.
- Penalty provisions must also be described in the act with the proviso that the penalties for activities such as littering do not contradict or undermine any other penalties contained in other legislation, such as the health act or environmental legislation if, for example, the specific activity results in environmental contamination or harm.
- One of the most critical elements of the legislation would be requiring the mother department to prepare implementing rules and regulations. This then avoids including specifics within the actual act that require a high level of parliamentary approval to have rates changed and updated on a regular basis. Therefore, the approach should be that the legislation should be somewhat generic and provide overall guidance on the required approach to Waste Management, but leave the very specific details such as policy requirements and regulations to be developed by the national Solid Waste Management commission. These regulations and policies and, for example, penalty units, can be more readily amended by the commission, and therefore, the overall impact of the umbrella legislation can remain contemporary.
- The legislation may also note the national government preference or otherwise for private sector involvement in waste collection, waste recycling, processing and final disposal. It is common globally for municipalities to devolve responsibility for the major aspects of Waste Management to the private sector, and therefore, it is essential to ensure that appropriate supporting legislation is in place, such as a national Private Public Partnership law has been enacted if required.
- Regulations must be prepared for key Waste Management activities if not already covered in other legislation such as health or environment. This refers to matters such as littering or illegal waste dumping on a commercial scale, as well as breaching of municipal requirements for residents to utilize the municipal waste collection services rather than bury or burning waste within their own properties.
- Regulations are also required for waste collection activities in terms of allowing or not allowing primary dumping locations to be open areas within the municipality limits, essentially piling waste uncontained on the footpath or vacant land, and

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other activities such as the frequency of cleaning of waste bins and haulage vehicles.

- Other essential regulations relate to the siting of landfills, which may be varied depending on the class of landfill adopted. The operating rules for the landfill must also be generated by regulation, including the requirements for appropriate engineering interventions such as liner types and leachate management. There are many documents which can provide background to this aspect especially those from the United Nations Environment Program which has established four categories of Waste Management facilities and the associated interventions required.
- The contemporary trend in Waste Management, particularly for facilities of more than 500 tons per day of net waste, is to investigate the waste to energy options available. This may be through mandating the diversion of material suitable as a refuse derived fuel, such as for use in a cement kiln, or mass burn technology for the waste stream for electricity generation purposes. These technologies have moved beyond being considered an emerging technology and can now be considered mainstream. Therefore, this aspect must be part of the integrated Solid Waste Management planning activities to ensure an overall consistent approach to Waste Management both at the national and municipal level.
- Once the national context has been agreed, then the role of the municipalities and cities within Solid Waste Management must be described, including the delegation of responsibilities from the mother department to implementation at the municipality or city.
- One option is to have the legislation allow the formation of Solid Waste Management Boards at the municipal or regional level. These boards are appropriate particularly in larger municipalities and cities where a board structure allows the involvement of external expertise from both industry and other interested stakeholders.
- The general responsibilities at the municipal level would include activities such as preparing an integrated Solid Waste Management plan every 10 years. This plan would cover the proposed approach by the local government unit to all phases of Waste Management from waste minimisation through to reuse and recycling activities leading to transport of waste, any interventions such as waste to energy and responsibility for final waste disposal in a controlled or sanitary landfill. This plan is used to develop long term approaches for Waste Management based on population and growth projections over some decades. During preparation of this plan, and at other times as required, the municipality will be required to undertake a waste characterization audit to determine the makeup of the waste stream to be subjected to recycling and waste intervention activities, as well as final disposal, perhaps following waste to energy activities. This waste characterization activity will also include waste mass determinations in the event that there is no local weighbridge, and therefore, no accurate determination is available of the total waste mass requiring management.
- The devolution of powers for a municipality to develop local legislation such as ordinances or by laws should also be adopted. This then allows the municipality to tailor national laws to local needs, and develop the most efficient and effective Waste Management approach satisfying local idiosyncrasies.
- An important institutional aspect is to encourage the clustering of smaller municipalities to achieve economies of scale particularly for waste diversion, waste to energy and final disposal facilities. Part of the umbrella legislation would allow the formation of a regional Solid Waste Management boards which would

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take over the responsibility for Waste Management, or parts thereof, within a cluster of municipalities.

- A key element within the legislation to maximize the likelihood of sustainable Waste Management activities is identifying the need for community engagement and education, and ensuring sufficient funding to undertake suitable activities in an ongoing basis.
- This training also is an essential element for any publicly operated landfill activities. Experience clearly shows that most landfills fail due to operational shortcomings, rather than poor design. It may be necessary to legislate for the formation of a training program or course for municipalities running the waste disposal facilities as this has been shown to be critical globally.
- Funding Waste Management activities is generally a low priority within municipalities compared with the more public face activities such as roads and water supply. Therefore, it may be appropriate to include incentive capabilities within the legislation to assist local authorities in providing sufficient focus on adequate Solid Waste Management. This may be as simple as the central government agreeing to tax concessions and duty exemptions to support better Waste Management interventions.
- In terms of funding, sometimes a Solid Waste Management fund is created at the central government level to be administered by the Solid Waste Management commission. This funding would not be used for day to day implementation or activities but to finance research and investigation into emerging or appropriate interventions and technologies, as well as perhaps incentives and award schemes. The funds could also be used at a national level for information, education and communication activities as well as capability building Nationwide.

4. Local Government Legal / Regulatory Framework

4.1. Mandalay System of Solid Waste Regulation

Local regulations are only useful to the extent that they are followed and enforced at a micro-level. Based on feedback from stakeholders in the process, there is little if any enforcement taking place at present.

The City of Mandalay Development Committee Laws empowers the MCDC to be responsible for, and to carry out development works, amongst other things, relating to environmental, public health, solid waste management and cleansing, and to issue rules and procedures, as well as bye-laws, orders and directives. Mandalay City Development Committee (MCDC) Environmental Conservation and Cleansing Regulations consist of general solid waste policy parameters.

Specific violations of solid waste management law are referenced within Prohibitions Punishable by Administrative Action under MCDC law. Chapter 27 of MCDC Law, details the penalty regime for broad categories of violations which cover solid waste related infractions.

4.2. Suggested Changes in Local Regulatory System

Many of the local residents currently litter and dump waste illegally as they perhaps do not understand the health and environmental implications of these activities. The fact that the current collection process involves significant quantities of waste being dumped on footpaths awaiting secondary collection would confuse the local residents and commercial waste generators

Therefore, prior to implementing the new collection system, an education campaign is essential to advise residents as to what is required in future and inform them that there may be a short amnesty of a few months initially while the laws are to be enforced, but then after that fines will be imposed for all offenders.

The education campaign would typically last a few months and would finish just as the new bin system is started followed immediately by the short amnesty where violators are only warned. After a further few months, penalties would then be applied to transgressors.

At this point, the quantum of fines should be raised enough to “hurt but not injure” violators, to have a deterrent effect. This should be linked to a new policy of increasing penalties for multiple violations, in order to effect behavioural change.

5. Public Private Partnership (PPP) Legal Framework

5.1. National PPP Law Framework

PPP projects in Myanmar are implemented on an ad hoc uncoordinated basis via government initiatives, sector master plans or unsolicited bids by private sector proponents. Although PPP projects, particularly in the power generation sector, continue to be implemented at the national level, there is no separate national law in place to govern PPP transactions as yet. It is understood that both multilateral and bilateral donor agencies are requesting the national government to consider enacting a new PPP law and that this might eventually influence some form of PPP law development and enactment.

Other Southeast Asian countries have instituted a national PPP unit with both approval powers and advisory servicing functions. However, it should be emphasized that no such plan is in place locally at present. The potential for both a national PPP law and a central PPP unit would need to be monitored by MCDC particularly if there is potential for approval authority being granted to the national government over city level PPP's.

5.2. Local law on PPP

It is understood that there are no national or local laws that generally prohibit outsourcing of solid waste functions to the private sector or proscribe how such projects should be developed. However, PPP project plans and draft concession/PPP contracts must be approved by MCDC and endorsed by the regional government.

5.3. Impact on Solid Waste PPP pilot project

The Integrated Solid Waste Management Plan designates the Chan Aye Thar Zan Township waste collection concession as the project to be supported under the Solid Waste Action Plan and Prefeasibility Study.

The proposed PPP commercial and legal structure is relatively straightforward and would not appear to require the enactment of major new or specific local laws to go forward.