

Long Term Waste Management Plan 2021 – 2030

SEA Post Adoption Statement

July 2021

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## 1. Background

- 1.1. The Long-Term Waste Management Plan 2021 to 2030 – draft for Consultation (“the draft WMP”) set out Government’s vision for waste sector in Malta and was developed through a collaborative and evidence-based approach. The draft WMP included a 10 year Vision, underpinned by six strategic objectives of: ‘Maximise the resource value in waste through different management options’, ‘Innovate by designing waste prevention initiatives to lower Malta’s per capita generation rate’, ‘Reform the collection system to increase economies of scale, harmonise collection practices and modernise the collection fleet’ and ‘Build the necessary waste management facilities to treat recyclable, organic and residual waste to achieve Malta’s targets’, ‘Study the feasibility of an enhanced producer responsibility framework to complement Malta’s transition to a circular economy and reflect further on the true cost of waste management’ and to ‘Promote further the involvement of the private sector in waste management’.
- 1.2. Additionally, the draft WMP sets out action in three key priority areas that are aligned with the strategic objectives in order to ensure a robust and effective waste governance framework.
- 1.3. In total the draft WMP includes over 130 measures in order to address the key challenges facing the waste sector in Malta which defines policy direction for sustainable waste management practices to ensure that the country can meet and exceed the EU Directives and targets of 2021-2030.
- 1.4. The draft WMP was subject to Strategic Environmental Assessment (SEA) and a public consultation on both the draft WMP and accompanying SEA Environmental Report ran from December 2020 until June 2021.
- 1.5. Following consultation and taking into account views received during the consultation process, the WMP has now been published and is available on the Ministry for the Environment, Climate Change and Planning website at <https://environment.gov.mt/en/Documents/ministerialConsultations/longTermWasteManagementPlan2021-2030.pdf> . The WMP does provides the strategic framework within which future decisions on will need to be made.

## 2. The Strategic Environmental Assessment Process

- 2.1. The draft WMP was published for public consultation in December 2020, and was subject to a Strategic Environmental Assessment (SEA) in accordance with the SEA Regulations (Subsidiary Legislation 549.61). The objective of these regulations is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with these regulations, a strategic environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment.
- 2.2. The SEA for the draft WMP was carried out. Following a screening process for the draft WMP, a Scoping Report which summarised the overall vision of the Plan was prepared, which outlined the methodology that would be used to complete the phases of the SEA and identified the key environmental themes and main objectives of the Environment Report.

- 2.3. The initial Scoping Report was published for public consultation in December 2020. As per the requirements under sub-regulation 7(3) of the SEA Regulations the Designated Competent Authorities were consulted. The consultants subsequently responded to the feedback and the Scoping Report was amended accordingly and finalised.
- 2.4. In accordance sub-regulation 6 of the SEA Regulations, this stage was followed by the preparation of the Environment Report which laid out the results of the SEA exercise. The report provided a general background to the proposed draft WMP, analysed alternative scenarios, described the Plan's policy measures and assessed their impacts on 11 environmental themes. Namely, the Environment Report analysed the impacts of the WMP's measures on air quality, biodiversity, soil, climate change, cultural heritage, energy, water, human health, landscape, transportation and infrastructure, and waste and resources management. The impact assessment also included an evaluation of the cumulative impacts of the measures proposed in the draft WMP.
- 2.5. The Environment Report goes on to provide recommendations to reduce the significance of any identified negative impacts, and details monitoring requirements for the environmental themes throughout the WMP's implementation. A non-technical summary is also included.
- 2.6. The draft Environment Report was issued for a 4-week public consultation period in May 2021. The Designated Authorities mentioned above were also asked to provide their feedback. By the end of the consultation period, substantive feedback was received from ERA, the Energy and Water Agency (EWA) and the Water Services Corporation (WSC).
- 2.7. The feedback received was analysed and considered, and responses to the comments submitted were drawn up. Where appropriate, the feedback provided was taken on board whilst in other instances, clarifications were provided.

### 3. The Strategic Environmental Assessment Statement

- 3.1. Sub-regulation 10(1) of the SEA Regulations requires that the responsible authority ensures that when a plan or programme is adopted, the authorities referred to in regulation 7(3), the competent authority, the public and any Member State consulted under regulation 8 are informed that such a plan has been adopted and made available. In addition the responsible authority should publish a statement summarising how environmental considerations have been integrated into the plan and how the environmental report prepared pursuant to regulation 6, the opinions expressed pursuant to regulation 7 and the results of consultations entered into pursuant to regulation 8 have been taken into account in accordance with regulation 9 and the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with.
- 3.2. As per Schedule I of the SEA Regulations, the Environment Report outlines the draft WMP's contents, main objectives and its relationship with other relevant environmental policies and analyses the status quo in terms of environmental baselines for the 11 aforementioned environmental themes.
- 3.3. The Environment Report includes an impact assessment exercise of the effects of the draft WMP's measures on each environmental theme, together with a discussion of data gaps and assumptions, and of the cumulative impacts the measures will have on various aspects related to waste management.

- 3.4 The report examines the draft WMP's shortcomings and gives puts forward a number of recommendations aimed at minimising any negative impact of the Plan's measures. Monitoring requirements for the eleven environmental themes are also laid out.

## 4. Integration of Environmental Considerations into the Waste Management Plan

- 4.1 The draft WMP is a strategic policy document which intends to set Malta's policy direction on waste management for the forthcoming decade. From the outset environmental considerations were considered as paramount in formulating the strategic objectives, the priority areas and the underlying specific measures to address and implement these objectives and priorities. The intention of Government is to ensure that waste policy meets and where possible exceeds environmental objectives and obligations.
- 4.2 As previously highlighted, the SEA Regulations require the development of an environment report which identifies, describes and evaluates the likely significant environmental impacts of the proposed plan or policy. Moreover, the identification of alternatives taking into account the objectives and the geographical scope of the plan should be factored in. The draft WMP has a nationwide, multiyear scope in that it concerns the development of the waste management framework for the coming decade. In this regard, ensuring the long term sustainability and environmental performance of the waste management sector was a critical consideration and guided the development of the individual measures included in the draft WMP. For example, early assessment work and consultations identified that multiple environmental benefits could be achieved through the linkages between measures proposed such that modernizing the waste collection vehicle fleet coupled with addressing waste collection schedules had the potential to alleviate traffic congestion and thus potentially reducing harmful emissions and helping to improve local air quality.
- 4.3 As a result of the consultation process for the SEA environment report the WMP was updated to incorporate feedback received.

## 5. Main Findings of the SEA

### 5.1. The Assessment Process

- 5.1.1. The assessment of the draft WMP was undertaken in a number of stages. Firstly, the assessment considered the likely significant environmental impacts of the strategic objectives and priority action areas. Following this, the assessment expanded on these findings to consider the likely significant environmental effects across the proposed individual measures. The next stage of the assessment looked at the potential for in-combination and cumulative impacts of the proposed measures.

### 5.2. Findings of the SEA

- 5.2.1. The SEA findings concluded the potential for the draft WMP to have multiple environmental benefits. The environment report highlighted that the draft WMP aims to bring about several environmental benefits through the promotion of a culture of reducing waste and at the same time improve and expand the waste treatment options.
- 5.2.2. The draft WMP presents a number of measures aimed to reduce the generation of waste. The proposed measures in relation to waste prevention include economic incentives,

legislative and voluntary measures, capacity building and educational measures which target waste prevention across various sectors and societal strata.

- 5.2.3. The proposed measures aim to reduce the tonnage of waste produced per capita through behavioural changes. The two mechanisms employed by the measures are to provide the necessary education and waste management awareness to the public, and through economic incentives to drive people's behaviour towards waste prevention. The draft WMP builds on educational campaigns borne from the previous Waste Management Plan for 2014 – 2020 including the *Don't Waste Waste*, and seeks to further increase awareness on waste prevention through changes in the national curriculum and educational television programmes. The proposed economic incentives include the support for the establishment of re-use and repair centres, and the encouraging of retailer to shop with their own containers. These measures will have a synergistic effect on waste prevention and will hence ameliorate the individual impact of the various measures of the draft WMP.
- 5.2.4. A reduction in the amount of waste generated has the potential to contribute towards energy reduction as less waste needs to be collected or treated. Consequently, the waste prevention measures will cumulatively have the potential to reduce the carbon footprint and atmospheric emission generated from the waste management sector, in turn leading to potential improvements in national air quality conditions, a reduction in respiratory health issues and a decrease in Malta's greenhouse gas emissions by diverting waste away from the landfill.
- 5.2.5. An additional benefit arising from waste prevention is that the demand for land required for waste storage and management for landfilling purposes and waste treatment will be reduced. Thus, the implementation of the proposed measures will also exert an overall beneficial impact on local biodiversity and landscape as these are safeguarded from future expansions of waste facilities.
- 5.2.6. The draft WMP is also seeking to reform the current waste collection system by shifting towards a regional collection configuration. The proposed system incorporates the introduction of separate kerbside collection of paper and having morning and afternoon collection rounds.
- 5.2.7. The draft WMP seeks to modernise the waste collection fleet through a heavy investment in electric RCVs and increasing the proportion of e-RCVs to 20% of the total fleet by 2025. The use of hybrid or electronic vehicles is expected to reduce the number of internal combustion engines running on fossil fuels, and consequently would potentially decrease the emissions of GHG and atmospheric. Furthermore, the draft WMP has considered four different waste collection schedules with different total collections per week. The implementation of a collection schedule with a lower number of trips per week when compared to the existing scenario will further reduce the GHGs arising from kerbside waste collection.
- 5.2.8. A number of infrastructural developments are being proposed in the draft WMP including a waste-to-energy facility, a material recovery facility, an organic processing plant, and an upgraded thermal treatment facility. The environment report identified potential negative environmental impacts associated with the development of new facilities, mainly arising from land uptake required for new infrastructure and the deterioration of air quality from waste incineration.

- 5.2.9. These infrastructural projects are expected to improve local waste management which would otherwise be difficult to achieve without these investments. The facilities are expected to handle between volumes of waste and when in operation they will decrease Malta's reliance on landfilling as more treatment options will be available. Processing organic and recyclable waste in the new facilities will contribute towards a reduction in GHG emission levels, currently escaping from landfilled waste.
- 5.2.10. The proposed infrastructural projects will improve the national air quality and decrease the onset of potential respiratory diseases linked with existing emissions. Emissions from local waste management will be further reduced given that the permitting process requires that any new waste treatment facilities are equipped with the Best Available Technologies (BAT) for depolluting and entrapping emissions generated by waste management processes.
- 5.2.11. On the other hand, unless properly mitigated, the development of large-scale waste management facilities would give rise to cumulative adverse impacts on biota, water bodies and landscape. One such mitigation could be limiting development of waste facilities to degraded or brownfield land. Site-selection exercises is a good tool to give preference to dilapidated sites. The draft WMP identifies a number of criteria for selecting appropriate sites for these facilities to favour the use of land within the ECOHIVE Complex and Hal Far Industrial Area to reduce the adverse impacts associated with land uptake.
- 5.2.12. The draft WMP includes measures promoting the development of smaller-scale and/or private waste management sites including the establishment of a centralised WEEE collection point, and the development of privately-owned storage depots for temporary storage of unsorted waste streams. The decentralisation and hence fragmentation of waste management activities is seen to contribute towards adverse cumulative impacts in view of the increase in the trip journeys per tonne of waste generated. The sprawling of waste facilities will increase the cumulative land uptake, increasing the potential for hazardous leachates entering soil and water. Nevertheless, given that the scale (size) and location of such facilities have not been closely defined in the draft WMP, the SEA has adopted the precautionary principle in its assessment of land and visual amenity impacts.

### 5.3. [What recommendations did the SEA make?](#)

- 5.3.1. The adverse impact of proposed infrastructure may be mitigated by limiting the development of the new facilities to brownfield land and/or industrial sites, and by following the requirements of the Environmental Management Construction Site Regulations to minimise the environmental impacts during the construction phase.
- 5.3.2. As a first preference, large scale infrastructure development should be directed to already committed sites, such as the ECOHIVE Complex, and the use of the land within such sites should be maximised to the greatest extent possible in order to limit potential significant environmental impacts. Moreover, such infrastructure development should be subject to the appropriate development and planning and environmental controls, including where applicable, the provisions of EIA, SEA and Appropriate Assessment legislation. This would be determined in consultation with the relevant competent authorities on an individual project basis.
- 5.3.3. Likewise, smaller scale infrastructure should as a first preference be situated in brownfield or already existing industrial settings. The impacts arising during the operation of the proposed facilities may be mitigated by the inclusion of site-specific containment measures

such as impermeable membranes and gas collection systems and the monitoring of permit conditions. Likewise, smaller scale infrastructure should, as a first preference, be situated in brownfield or already existing industrial settings.

- 5.3.4 The success of recycling schemes is dependent on the market demand for the recycled products. The export of recyclable waste is a major limiting factor for Malta, as such an arrangement is entirely dependent on the continental demand for the collected recyclable waste streams. Whilst the draft WMP puts forward measures for some waste streams (e.g. Construction and Demolition waste) it does not for others. To this end in order to improve recycling and reuse rates across the board measures to support a secondary raw materials market should be a priority.
- 5.3.5 The draft WMP is determined as increasing the granularity of waste separation and thus could lead to potential negative environmental consequences through the increased use of black bags for example. To this end measures to reduce the use of black bags need to be considered. The consumption of single use bags may be significantly reduced through the introduction of new types of waste collection systems (e.g. paper/cardboard waste may be bound together using rope or placed in cardboard boxes or paper bags; the number of bring-in sites/smaller scale public recycling bins can be increased to induce a shift in disposal of recyclables away from kerbside collection). This will also reduce the travelled distance of waste collection trucks, which, together with the elimination of starts/stops associated with kerbside collections, will reduce fuel consumption, alleviate traffic congestion, and vastly improve air quality. It is believed that the WMP should promote more the separation of waste through the use of publicly available recycling points for more waste fractions.
- 5.3.6 The draft WMP envisages the increased development of public bring-in site and recycling points which may create an increase in demand for land up take. This should be ameliorated through a site selection process factoring in such elements as ensuring proper containment and construction of such sites to limit potential overspill of wastes into the natural environment and ensuring the frequent emptying of bins for example.
- 5.3.7 The draft WMP will shift the national management of waste towards a centralised system. These amendments will increase the financial and operative burdens of the national waste operator, since its facilities will take on the roles currently being conducted by private waste operators. In this regard adverse environmental impacts identified can be mitigated further through the assimilation of initiatives into the WMP which are led by non-government projects, spearheaded by the private sector, NGOs and the public.
- 5.3.8 The draft WMP's proposal for the separate collection of waste batteries and accumulators by type was considered during the SEA process as not viable when the wide variety of battery types and sizes is considered. Therefore it is paramount that a waste characterisation exercise can be carried out to comprehend the types and quantities of batteries being disposed, and to improve the national reporting statistics for this waste stream.

## 6. How the opinions expressed have been taken into account

- 6.1. The Environment Report was issued for public consultation and views from the public and key stakeholders solicited.

- 6.2. The public consultation on the SEA Environment Report received comments from two statutory consultees as well as two members of the public.
- 6.3. Following the public consultation for the SEA environment report, the draft WMP was updated, taking into account the findings of the Environmental Report and the views expressed during the consultation.

## 7. Comments on the Environment Report

- 7.1 A key consideration was given to the siting of infrastructure proposed as part of the draft WMP. This feedback was incorporated into the Environment Report under the recommendations as presented in section 5.3 of the current document. The considerations presented by stakeholders will be included at the implementation of the measures in question to ensure that environmental considerations continue to be at the forefront of waste management. Such environmental parameters and safeguards highlighted in feedback from stakeholders are to be taken into consideration at project stage as part of the design of the development and in the selection of suitable locations, so as to avoid major environmental impacts.
- 7.2. Comments related to measures related to landfilling and the continued utilisation of landfilling were raised during the SEA assessment process. In response the Government noted that landfilling will need to continue to remain as a necessary part of our waste management infrastructure. However it is recognised and promoted that making best use of the existing landfilling space without causing further uptake of land will be critical. At implementation stage it was indicated that Government would factor that suitable mitigation measures are put in place to ensure that the increase in landfill void space does not result in the encroachment of landfilling activities and other ancillary interventions onto adjacent undeveloped land.
- 7.3 Additionally, it was commented that the assessment of the climate change impacts arising from the measures associated with infrastructure should include assessment of the impact of atmospheric pollutants. In response it was noted that such factors had been included in the assessment and that suitable mitigation measures would be employed at implementation stage of the measures in question.
- 7.4. Landscape and visual amenity impact as assessed as part of the SEA process were also raised during the consultation on the environment report. This was primarily in reference to such impacts associated with large scale infrastructure developments. Again, it was note that appropriate mitigation measures where applicable will be applied at implementation phase.
- 7.5. It was noted that the consequence of modernising the waste collection fleet is that this would potentially result in significant increase in end of life vehicles and the subsequent management of these. The Environment Report should therefore taken into account that the assessment of these measures should factor in this element. It was noted in response that such considerations formed part of the environmental assessment.
- 7.6. With respect to the monitoring and mitigation proposals put forward in the Environment Report, stakeholders noted that they generally concur with the proposals however additional elements should be incorporated in relation to air quality and BAT, water quality and ensuring compliance with the obligations under the Marine Strategy Framework Directive and that monitoring for infrastructure should include assessment of total footprint

required for the development of such. All recommendations put forward were taken on board and incorporated into the environment report.

## 8. Reasons for selecting the Long-term Waste Management Plan (2021 to 2030) as adopted

- 8.1 The SEA Regulations require that the Government identify, describe and evaluate the likely significant effects on the environment of any reasonable alternatives to the draft strategy, taking into account its objectives and geographical scope.
- 8.2 As part of the SEA Process, three alternatives were put forward. These were full implementation of all measures as proposed; voluntary measures not implemented; and the zero option (doing nothing).
- 8.3. Alternative 1 assumes full implementation of the measures proposed in the WMP, which requires the complete cooperation of the relevant authorities and stakeholders who will adhere to all proposed changes. Alternative 2 considered a scenario in which the voluntary measures proposed in the WMP in terms of waste prevention are not implemented. Alternative 3 assumed a “do-nothing” scenario and thereby assesses the environmental impacts if none of the measures proposed by the WMP will be implemented.
- 8.4 The impact assessment appraisal found that the WMP's underlying theme - a shift towards waste prevention and improved management of the waste generated in the Maltese island - will induce an overall beneficial impact. Full implementation was found to lead to the greatest number of beneficial impacts on the various themes when compared to the other alternatives considered.
- 8.5 Alternative 2 (the removal of voluntary measures) led to a marginal decrease in the beneficial impacts arising from waste prevention.
- 8.6 For both of alternative 1 and 2, adverse impacts were seen to be primarily caused by further land uptake, a residual impact from the development of new and improved waste management facilities. The release of atmospheric pollutants caused by waste incineration and additional waste export will moreover impose adverse impacts on air quality, soil and climate change. The ER's recommendations, however, include suggestions for minimising and mitigating such adverse impacts.
- 8.7 Alternative 3 (zero implementation of the WMP's measures) would lead to a lack of incentives for waste reduction and an absence of alternative means of waste management, leading to an increase in landfilling and an expansion of current landfill. The new waste management facilities proposed in the WMP under alternatives 1 and 2 would not be developed, hence causing a reduced capacity for sorting recyclable waste and for the recovery of organic waste, and leading to Malta's dependency on landfilling being retained. This would be further exacerbated since, under alternative 3, there would be no improvement in the mechanisms seeking to increase source-separation of commercial and municipal waste. The dependency and expansion of the landfill will adversely affect biota, soil and water bodies surrounding the complex, and will lead to an increase in atmospheric and GHG emissions. A beneficial outcome of alternative 3 related to landscape visual amenity, since large-scale waste management facilities would not be developed.

- 8.8 In light of the impact assessment's findings that Alternative 1 (full implementation) would lead to the greatest number of positive impacts on the environment, the WMP, with the complete set of its proposed measures, was chosen over the other two alternatives.

## 9. Monitoring

- 9.1 The SEA Regulations require that the Government monitor the significant environmental effects of the implementation of plans and programmes in order, among other things, to identify at an early stage unforeseen adverse effects, and to be able to undertake appropriate remedial action.
- 9.2. The Environment Report in line with the requirements of the Regulations put forward recommendations for the monitoring of the impacts of the WMP measures across a number of environmental themes. These included air quality, biodiversity, soil, climate change, cultural heritage, energy, water, human health, landscape, transport and infrastructure, and waste and resource management.
- 9.3 in relation to air quality monitoring is required to assess the success of policies which aim to increase waste minimisation, changes in waste collection transport systems, as well as generation of increased atmospheric pollutants from waste processing facilities. Adverse impacts envisaged from construction works required to build new depots and waste management facilities should be monitored. Emissions to air from such waste management facilities need to be monitored and kept in check with national air quality objectives and EU emission limit values.
- 9.4 Monitoring for biodiversity should ensure that the conservation of designated areas is maintained and safeguarded, both terrestrial and marine. This is measurable by studying the impacts on designated areas as a result of various waste management developments which take-up virgin/agricultural land. Such data can be obtained from the environmental impact assessments carried out on the respective development planning applications. Any proposed waste infrastructure will need to be vetted to determine if an EIA (Environmental Impact Assessment) or an AA (Appropriate Assessment) is required particularly if the project is considered to impose a number of significant adverse impacts on Special Areas of Conservation (SACs) and/or Special Protection Areas (SPAs).
- 9.5 Monitoring the extent of soil loss, contamination of soil quality and the inherent agricultural resources which are dependent on soil is required to ensure the protection of this environmental theme. Waste management activities and proposals for new infrastructure should evaluate land contamination effects, thus monitoring the waste management facilities that may be discharging leachates and other by-products. Furthermore, the loss of soil attributed to the construction of new waste management facilities should be recorded, even if they're not subjected to the EIA process at project level. This should be further substantiated by favouring design alternatives that minimise the uptake of soil and land.
- 9.6 The WMP aims to improve climate change by reducing greenhouse gas emissions attributed to measures which seek diversion away from landfilling as well as waste minimisation practices. To monitor the success of the Plan, the net atmospheric emissions of greenhouse gases on a national scale should be measured and monitored over time.
- 9.7 Maintaining the conservation status of cultural heritage can be achieved by protecting scheduled and designated areas from various threats such as take-up of virgin land which may

uncover archaeological features of national importance. Monitoring the success of this criterion involves the assessment of the number of complaints relating to features of cultural heritage affected by the proposed measures, and the archaeological monitoring of such developments to properly document any discoveries.

- 9.8 Energy generation, security of supply and energy sources merit protection from any measures whose construction phase may have adverse impacts on these utility services. Increased electricity demand is also envisaged from the increase in proportion of electric/hybrid vehicles and the intensification of waste management processes, which should be monitored accordingly. Monitoring and collation of data pertaining to waste generation for example form part of the reporting obligations under the EU environmental acquis and this data should be used in this regard with respect to how the implementation of the WMP and its identified potential environmental impacts is tracked.
- 9.9 Water resources merit protection from waste management facilities, where water quality values need to satisfy EU Directives such as the Water Framework Directive, the Bathing Water Directive, and the Marine Strategy Framework Directive. To monitor the effects on groundwater and inland surface water resources, discharges from waste management facilities need to be monitored as well as the number of water pollution incidents related to waste management facilities. Coastal and marine water quality also needs to be monitored for contamination sources by assessing discharges in the marine environment and detecting their source. Several parameters are monitored from terrestrial and marine protected areas through environmental permitting conditions and national monitoring programmes.
- 9.10 Data regarding air pollution-related illnesses and deaths, along with obesity-related deaths should be utilized to determine the impacts of the WMP on human health.
- 9.11 Multiple developments being proposed in the WMP are likely to have an adverse effect on the Maltese landscape, while other proposals aimed at reducing vehicular traffic would have the opposite outcome. Although impacts on landscape are difficult to quantify, indicators such as the extent of AHLVs can be used to monitor and measure these impacts.
- 9.12 Impacts for transport and infrastructure include the transport impacts due to collection services and waste related activities. Monitoring is required for the management of waste according to the proximity principle, and to improve on collection services in terms of logistics and timing. Measurable parameters are fuel used per tonne of waste, number of waste collection vehicles and type of waste collection permits, and the total footprint required for new waste infrastructure.
- 9.13 Efficient resource management is achieved through the promotion of sustainable waste management by following the waste hierarchy. This is done through the promotion of consumption patterns to reduce inefficient use of resources, promoting prevention, re-use, recycling and recovery for energy, recovering value from waste for composting, recycling and energy generation and reducing landfilling. Monitoring parameters to assess the success of resource management include keeping records of MSW generated per capita, evaluating recycling and composting rates, calculating the volume of waste deposited in landfill and volume of C&D waste generated and disposed of (not reused).

