Innaddfu lil Malta

A Forward Thinking Public Cleanliness Consultation Document with Sustainability at its heart



Hon. Eve Borg Bonello

Shadow Minister for Climate Change and Public Cleanliness

August 2025

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This is a **national** problem, and there are solutions, we just have to channel some young hope to make them a reality.



Our Vision

Hon. Eve Borg BonelloShadow Minsiter for Climate Change and Public Cleanliness

Malta is our home, and keeping that home clean is a fundamental duty the government is expected to provide. Public cleanliness impacts public health, adds to the overall quality of life of citizens and is necessary for fostering our shared sense of community.

For these reasons, it is the expectation, and the right, for all citizens to have a minimal standard of care applied to all their surroundings.

With the tourism industry slated to amount to circa 15% of the nation's GDP, the topic also comes at tremendous economic implications: according to the MTA's Traveller Survey, a quarter of all tourists indicated that they found Malta's cleanliness poor in 2023.¹

Over the past 12 years, we have seen administration after administration react in a knee jerk manner to problems in public cleanliness as they arise, often repackaging the same tried and tired solutions. Despite significant increases in the resident population in the last decade, relatively little has changed in the sector: Malta is more littered and less unkempt than ever before.

This consultation document introduces several innovative measures to enhance urban and rural cleanliness while promoting environmental sustainability and efficient waste management.

Executive Summary

Malta is our home, and keeping it clean is a fundamental duty. Public cleanliness impacts health, the overall quality of life and helps nurture our shared sense of community.

Changes to curbside pickup

Trial an underground bin system in the densest localities. As a first step these can be installed in existing bring-in sites and other high density sites where no walkways or parking is lost.

Just a 10% trial of this system in the Sliema-Msida-Birkirkara-Valletta Northern Harbour corridor would free our streets of over 6,700 tonnes of waste annually.

Experiment with increasing collection frequency through the use of partitioned garbage trucks, which means this does not come at the cost of separation and recycling goals.

Sustainability

Sustainability should be at the core of any change going forward, with completely electric fleets and more renewable sources of water chosen for cleaning.

Smart Infrastructure

A full embrace of digital infrastructure through smart bins can help in planning more fuel and time efficient routes, as well as identify areas that need more or less attention.

Greater Enforcement

Greater, more consistent enforcement of existing laws and regulations, such as holding contractors responsible for cleaning construction areas after work has concluded. In Valletta, stewards ensuring compliance have had success, they should be rolled out in more localities.

Different solutions for different areas

Besides different localities requiring different measures, special areas like beaches, marinas, rural areas and parks have different needs. More specialised teams and equipment need to be provisioned and deployed for these cases.

Knowing when not to intervene

Rural wild flora is often labelled as nuisance vegetation and removed, despite it playing an important role in the ecosystem. This should stop being done by any government department and an information campaign on the benefits of wild flora should be run.

More Holistic and Planned Solutions

Only through a proper capacity study, supplemented by other sources of data, can a more comprehensive and holistic waste collection strategy be devised. Instead of addressing problems as they crop up, proper planning will ensure that the system works efficiently by design.

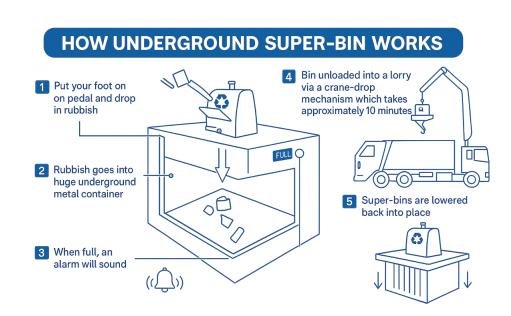
Changes to curbside pickup

Malta has one of the highest population densities in the world, which also translates into some of the densest litter outputs per street. The current approach of curbside pickup often results in unsightly and unsanitary heaps of trash along some of Malta's most busy streets. The issue is further compounded by apartment blocks which output much higher amounts of curbside litter than houses.

Tourism also contributes to the challenges of keeping Malta clean. According to NSO reports on the tourism density, the populations of San Pawl II-Bahar, St. Julians, Mellieha and Sliema effectively double during the peak season compared to their mid-year populations.²

Implementing Underground Bin Systems

Current curbside collection often lacks designated bins. Where they exist, they often overflow, creating hygiene concerns, unpleasant odors, and visual pollution. This is especially the case in areas experiencing high foot traffic and waste generation. To improve the cleanliness and aesthetic appeal of these areas, we propose the implementation of underground bin systems as a modern and efficient waste management solution.



Underground bin systems consist of large waste containers installed below ground, with only a sleek disposal chute visible above. Waste is stored in a temperature-controlled underground environment, reducing odors and pest problems. Collection is done using specialized trucks equipped with lifting mechanisms, ensuring a clean and efficient process within minutes. Several ready made solutions already exist on the market, with well-documented maintenance and service requirements.

As a first step, underground bin systems can supplant wherever current bring-in sites exist as the footprint is identical, if not less. As a second step, additional sites where possible in areas far from bring-in sites can be identified to implement this system.

According to <u>NSO reports</u>³, the average municipal waste generation per person in 2023 was 565kg annually. The Sliema-Msida-Birkirkara-Valletta Northern Harbour corridor alone accounts for around <u>120,000 inhabitants</u>⁴. Just a 10% adoption of this measure in this area would mean liberating our streets of 6,780 tonnes of waste annually.

Underground waste bins would also allow more flexible hours for waste disposal, by allowing shift workers who might miss the early hour curfew to dispose of waste at a more convenient time.

Mixed Collection

Malta's waste management system faces challenges related to waste separation and collection efficiency. Currently, different waste types (organic, recyclable and general waste) require separate collection rounds, leading to increased fuel consumption, traffic congestion, and operational costs, as well as the inconvenience citizens face in having to wait for appropriate days for collection.

A possible solution to optimize waste collection is the introduction of mixed routes operated by partitioned garbage trucks which can collect multiple types of waste in a single route while maintaining separation.

³ https://nso.gov.mt/municipal-waste-2023/

⁴ https://nso.gov.mt/wp-content/uploads/Regional-Statistics-Malta-2023-Edition.pdf

PARTITIONED GARBAGE TRUCK



These trucks are designed with an internal multi-compartment system, allowing them to collect multiple types of waste simultaneously without mixing them. Waste bags are loaded into separate sections, ensuring recyclables and organic or general waste remain sorted throughout the collection and disposal process.

This system will enhance Malta's waste collection efficiency in dense localities struggling to keep up and support national waste separation targets. It also helps environmental goals as waste is separated wherever possible, something not always the case with supplemental emergency rounds currently.

This policy can also help with sustainability goals: the newly introduced trucks can also be fully electric.

Balancing with Sustainability

The government should lead the way in adopting sustainable practices wherever possible, including in cleaning activities. Where cleansing vehicles are operated by the government itself, emphasis on using electric vehicles for the lowest possible emissions should be made.

In the case of tendering by private operators for contracts, more ambitious sustainability criteria should be implemented to incentivise greater use of low emission vehicles by private contractors: ideally approaching completely electric fleets in the near future.

In the long run, besides being more environmentally friendly, electric fleets have lower maintenance costs than equivalent internal combustion engine ones, reducing the cost of cleaning our streets.

Optimizing Water Usage for Street Cleaning

As Malta's climate is becoming noticeably drier, water has now become a precious resource. Care should be taken as to what type of water is used for street cleaning, since this is currently often very high quality aquifer sourced water. Attempts should be made to use more sustainable sources, <u>like reclaimed or polished water</u> for activities like street cleaning.

Local councils should also be provided with means to obtain and transport such polished water, perhaps through existing New Water infrastructure as a start.

Such measures emphasise that sustainable practices can be implemented in every facet of day to day government operations: finding this balance will be crucial in the years ahead.

Providing Guidelines for NGOs

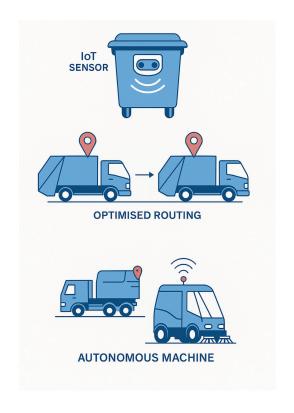
The number of NGOs and voluntary organisations involved in cleanups has increased over the years. Such a full space of people eager to help would stand to benefit from centralised guidelines, especially in how to safely collect waste and efficiently dispose of the collected materials in a professional and environmentally friendly manner.

This can be done either as a how-to document or in broader government sponsored training sessions, with free invitations extended to all NGOs operating in this sector.

Embracing Smart Infrastructure

With the rise of inexpensive IoT (Internet of Things) sensors, the currently existing waste management infrastructure can be vastly improved. Smart bins can transmit patterns of use and indicate fullness, allowing operators to optimise collection more efficiently in real time.

This has downstream implications: more efficient routing translates to system-wide gains. This is especially true if a bin does not need to be emptied: the reduced route leads to less traffic on our streets, and less needless bin visits by staff mean they can do other things.



Bins that fill often may indicate the need of greater investment in the area, while conversely, ones that do not may be safely removed, perhaps reclaiming that infrastructure for alternate use.

Another avenue for expansion in this area can be the greater use of autonomous machines to do manual labour tasks, liberating employees to do other more important jobs. Machines never tire, and can operate in off peak hours very late in the evening or early in the morning.

Another welcome side effect of this would be greater possibility of commercial and academic involvement in the sector in areas such as robotics and autonomous systems: waste management is a fascinating problem yearning for innovation, and it makes sense to tap talent to achieve a cleaner Malta. If we solve the problem for ourselves, it stands to reason we can contribute in solving it for others, and Malta can become an industrial leader in high density urban waste management solutions.

Greater, Smarter, Enforcement

While we believe that the majority of citizens actively participate in the upkeep of their surroundings, it is undeniable that all it takes are a few rule breakers to detract from the quality of spaces. For a number of abuses, legislation already exists and the onus is on enforcing them.

One area for added enforcement can be to ensure that contractors abide by their obligations to clean up the large amounts of dust deposited on the surroundings after construction is completed.

Another is to ensure that commercial establishments are abiding by all relevant laws. To facilitate these aims, stewards tasked with ensuring compliance should be introduced in all localities, not just Valletta.

This policy goes hand in hand with Partit Nazzjonalista's view that the government should step in to mitigate new problems as they arise, adopting a continuously iterative approach to public service needs as they evolve. However this cannot be done in a vacuum, it must be part of a multifaceted solution as presented in this document.

Local councils, while facing the brunt of resident complaints, are also relatively powerless at enforcing regulations. As things stand the only agency currently willing to enforce illegalities in waste is ERA. This oversight either needs to be drastically ramped up in number and scope, or provisions made for Local Councils to issue and collect their own fines as regulated by a relevant national authority.

Significant bottlenecks remain in curbside waste that is left by tourists, since this is often not separated and lumped all in as mixed waste. A mitigating measure can be a joint program by Directorate of Cleanliness and MTA, where shortlet properties are given a free attractive separated waste home bin to incentivise local practices among tourists who would otherwise not know of them.

Another possible avenue is to make the owner of MTA registered properties directly responsible for waste separation, both in educating their patrons and also ensuring that no abuses take place. As a start, a less extreme intervention would be MTA giving contact information of a designated contact person for licensed short let blocks to Local Councils.

Tailor made solutions to different areas

Public cleansing plans should be holistic, recognising that different areas need different types of care. The current government plan lacks this overarching framework, with responsibilities being scattered.

Beaches and marinas need specialised services, both cleaning from shoreline anthropogenic litter like plastics and natural debris or detritus. Besides specialised teams, marine areas can benefit from seabins: floating trash collection devices designed to remove marine debris.

Similarly, rural areas and parks require specialized cleaning to manage the accumulation of leaves, branches, and other natural debris that can obstruct pathways, clog drainage systems, and create fire hazards. Using equipment like leaf vacuums or mulchers helps maintain a clean and natural environment without disrupting the ecosystem.

Removing Graffiti from our streets

Careless graffiti scribbled across our buildings and infrastructure uglify our surroundings. Indafa should apply a multipronged approach, with law enforcement being roped in to crack down on graffiti where applicable.

Specialised quick removal teams, equipped with environmentally friendly solvents and other specialised apparatus should be deployed to quickly cleanse areas from graffiti and drive home the message that it is not welcome.

Knowing when not to intervene

Despite pressure by the NGO <u>Foundation for the Conservation of the Maltese Honey Bee</u>⁶ and a subsequent directive by the Environment Ministry to maintain flora on both urban green areas and rural pathways so pollinators can have an adequate food supply, this flora is often treated as nuisance vegetation and removed.

This policy should be adhered to and expanded to include any area the government is responsible for, within reasonable limits.⁷

⁶ https://maltesehoneybee.org/2025/02/07/protecting-rural-wild-flora-a-path-to-concrete-action

⁷ Borg, S., Dimech, D. C., Buttigieg, A. J., & Farrugia, D. (2023). Review of the Maltese and European Laws related to the Genetic Protection of the Endemic Maltese Honey Bee (Apismellifera ruttneri). European Energy and Environmental Law Review, 32(Issue 3), 145–154. https://doi.org/10.54648/eelr2023007

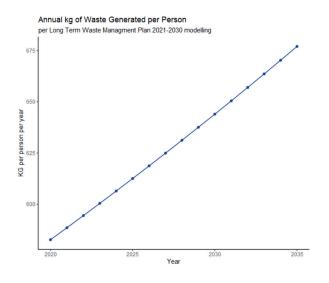
Carrying Capacity Study

From the government's own <u>Waste Management Strategy documents</u>⁸, it is clear that all waste sources are expected to grow by 1% annually per capita. The implication of this is that recycling is not achieving the desired effects and that measures to incentivise people to generate less waste are not nearly as ambitious as they should be.⁹

On top of this, Malta's population, both resident and tourist, keeps increasing annually, which will further exacerbate this waste generation problem. A serious long-term capacity study needs to be carried out, paired with more ambitious and creative ways of reducing per capita waste generation.

This capacity study will be the foundation of a more holistic data driven plan that ensures that local councils have the support needed for solving their waste problems well into the coming decades.

Part of this plan can include the curation of shared national resources. A centralised data platform where all local councils could contribute and access datasets could help create resources for policy makers. A panel of experts that local councils can tap into might help transform local knowledge into better strategies.



 $^{^{8}\} https://era.org.mt/wp-content/uploads/2022/02/Long-Term-Waste-Management-Plan-v1.4.3-Spreads-Digital-Version.pdf$

Innaddfu lil Malta

Problem identification and first draft

Present to local councillors and wide variety of stakeholders for first consultation

Iterate document based on consultation feedback

Open up document to broader public consultation

Continue to advocate for clear policies for a cleaner Malta

