



Performance Audit

*Implementing producer responsibility
for packaging waste
in Malta*

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List of Abbreviations

DLG	Department for Local Government
ECJ	European Court of Justice
ELV	End-of-Life Vehicles
EU	European Union
MEPA	Malta Environment and Planning Authority
MoE	Ministry for the Environment
MRF	Material Recovery Facility
MRRA	Ministry for Resources and Rural Affairs
MSW	Municipal Solid Waste
NSO	National Statistics Office
OPM	Office of the Prime Minister
PPWR	Packaging and Packaging Waste Regulations
PW	Packaging Waste
RCV	Refuse Collection Vehicles
SAWTP	Sant'Antnin Waste Treatment Plant
SWMS	Solid Waste Management Strategy for the Maltese Islands
VAT	Value Added Tax
WBA	Waste Batteries Accumulators
WEEE	Waste from Electrical and Electronic Equipment
WM	Waste Management



Executive Summary, Conclusions and Recommendations

Executive Summary, Conclusion and Recommendations

1. The National Audit Office has conducted a performance audit of the initiatives that Government has undertaken to implement producer responsibility for packaging waste recycling. This study gauged the extent to which producers have assumed the responsibility to recycle a set percentage of the packaging waste put on the market, as required by law, and to comply with the relative reporting obligations.

2. Government's role in producer responsibility is to establish the mechanisms that enable effective regulation, enforcement and monitoring. In this respect, Government has also assumed the role of facilitator and has only intervened to stimulate the market and to provide for certain facilities in view of potential market failures. Consequently this audit analysed the main components used by Government to bring about producer responsibility for packaging waste recycling, namely:

- The management of the implementation process;
- The regulation and enforcement of this producer responsibility;
- The economic instruments used to incentivise this producer responsibility.

3. Despite Government's initiatives, it is ultimately producers themselves who have to shoulder their legally set waste-related responsibilities. Producer responsibility is an extension of the "polluter pays" principle. This principle emphasizes that producer responsibility extends to the proper management of any waste arising from the product, particularly at the product's end-of-life.

4. The Packaging and Packaging Waste Regulations (LN/2006) require packaging producers to recycle a set percentage of the packaging waste resulting from the packaging they put on the market. Maltese legislation defines packaging producers as local manufacturers and importers. These were estimated at 2,676 in 2008, from National Statistics Office (NSO) business-related data. Total packaging waste resulting from all producers'

packaging put on the market was estimated by Malta Environment and Planning Authority (MEPA) to be 48,000 tonnes in 2007. However, the MEPA estimation diverged from the estimated projections given in the 2009 Waste Management Strategy Update. For the purpose of this audit the MEPA estimation was utilised.

The Prevailing Situation

5. Since 2001, Government has sought to put in place the organisational, legal and infrastructural frameworks required to implement the packaging waste legal obligations in accordance with European Union (EU) requirements. Additionally, Government, and lately producers, initiated educational and awareness campaigns to promote consumer participation in recycling.

6. These initiatives enabled producers to gather momentum in recycling packaging waste. Packaging waste recycling declared by producers for 2006 and 2007 was very low. This audit could not assess producer recycling performance for 2008 and 2009 since 2008 recycling declarations have not yet been validated, and 2009 declarations have only recently started being compiled by MEPA. Public declarations by producers for these latter years indicate that producer packaging waste recycling has registered significant progress. However, this is still considerably below the legally-set target for 2009 which obliges producers to recycle 50 percent of the packaging placed on the market.

7. The minority of producers who are recycling packaging waste are bearing the collection and administrative costs entailed. However, producers have still not settled or made payments on account for the costs entailed in recycling packaging waste through Government facilities since June 2009. This situation has, to an extent, been fuelled by the fact that an agreement between Government and producers relating to processing costs is still to be finalised. WasteServ has also noted that the

invoicing process is rather lengthy since it is dependent on recyclables' prevailing markets and also the issuing of final documentation by the recycling facility.

8. Producers are legally obliged to register with MEPA and to declare the packaging that they annually put on the market. However, the compliance rates regarding these two legal obligations were found to be low and on a declining trend. Moreover, the reliability of the producers' declaration to MEPA regarding the amount of recycling undertaken cannot be ascertained since most of the producers who submitted a declaration did not submit documentation issued by a recycling facility substantiating the producers' recycling claims. To date, MEPA has not audited producer declarations.

9. Producers' low packaging waste recycling is creating environmental and financial costs which are being borne nationally. Between 2005 and 2007, producers' low recycling resulted in the resource loss of over 43,000 tonnes of recyclable packaging waste. In the same period, the packaging waste that producers failed to recycle constituted 5.5 percent of total waste landfilled taking up about 54,000 cubic metres of landfill space.

10. Additionally, between 2005 and 2007, producers' low packaging waste recycling resulted in Government incurring financial costs of €2.5 million which were recouped from the Eco-Contribution paid on items which result in packaging waste at their end-of-life. This amount excludes the financial and social costs of the ensuing environmental externalities. Between 2006 and 2009, Government additionally spent over €650,000 to help start-up producer responsibility implementation and almost €3 million on educational recycling campaigns.

11. Achievement of producer recycling targets is necessary so that Malta may attain its national packaging waste recycling targets under EU legislation. Malta has received a pre-infringement letter querying why the 2006 packaging waste targets have not been met.

The Implementation Process

12. Producer responsibility was set as a key principle for waste management in Malta in the 2001 Solid Waste Management Strategy for the Maltese Islands (SWMS) and reiterated in the 2009 Strategy Update. The implementation of this policy is particularly challenging because it actually aims to simultaneously implement two new concepts for Malta: producer responsibility and packaging waste recycling.

13. Matters are further complicated since the fast implementation pace required to attain recycling targets has to be balanced with economic and social considerations. The implementation of this policy is also constrained by

Malta's small island circumstances which limit economies of scale opportunities for recycling waste. Moreover, the financial viability of recycling is largely dependant on the international price of recyclates.

14. Producer packaging recycling is significantly below target for a number of reasons. Generally, Government's producer responsibility implementation efforts have not yet fully borne fruit since most initiatives undertaken have been start-up in nature. Various critical milestones for the implementation of producer responsibility have been or are being undertaken with a significant time lag.

15. Critical initiatives which suffered delay include the building of a Material Recovery Facility (MRF) to process recyclable waste. Producer-organised systems to collect separated packaging waste started in 2006 but only gathered significant momentum when producers started taking on responsibility for the Recycle Tuesdays Scheme in 2009. From 2009 onwards, two collective producer recovery scheme operators have entered into arrangements so as to pay for the collection of separately collected recyclable waste from most local councils. This arrangement has been a catalyst in raising the packaging waste collected by collective producer recovery schemes for subsequent recycling.

16. Data and information gaps, such as those related to the amount of packaging waste put on the market, may have hindered the implementation of producer responsibility. A situation analysis is determined through the undertaking of waste surveys on a periodic basis. However, three attempts to carry out the relevant waste survey did not yield the desired results.

17. Producer responsibility implementation may have been slower than necessary because non-compliant producers were not being prodded with any enforcement measures by the regulatory body, MEPA. Additionally, conflicting views held by the diverse economic operators concerned had to be resolved before producer recycling could take off.

The regulation and enforcement role in producer responsibility implementation

18. As the designated regulatory body, MEPA is to monitor and enforce producer packaging waste responsibilities.

19. The number of packaging producers registered with MEPA declined between 2006 and 2008. MEPA did not undertake any research to determine the actual reasons for such a decline. The Authority attributes this decline to three plausible causes, namely:

- Producers might have been under the impression that registration was a one-time procedure.
- Producers may have ceased to remain producers or ceased operations.
- Lack of enforcement action, which is attributable to MEPA's limited human resources.

20. To date, the Authority has not initiated any legal action against non-compliant producers. In order to be able to fully enforce the packaging waste regulations MEPA has identified a number of additional staff requirements as part of the MEPA reform underway. It is envisaged that by mid-2011, fourteen additional staff will be allocated on waste-related work.

The role of economic instruments in producer responsibility implementation

21. In 2001, Government set out the objective of removing subsidies of landfill fees over three years. In October 2009 landfill fees were raised from €0.77 to €20 per tonne of mixed municipal waste for Local Councils. In June 2010, this increase became applicable to the private sector as well. This raised landfilling fee is still €10 per tonne less than the full landfilling cost incurred by Government. According to Legal Notice 382/2009, this outstanding subsidy will be removed by 2012.

22. To mitigate the recycling price disadvantage, through WasteServ, Government is also seeking to provide recycling services to producers at break-even cost and by striving to improve the waste processing efficiency of Sant' Antnin Waste Treatment Plant (SAWTP).

23. Because recycling costs are generally significantly higher than landfilling costs, optimising the landfill-recycling price differential is not likely to be sufficient to induce producers to recycle. For this reason, Government has sought to strengthen the incentive for producers to recycle through another economic instrument – the Eco-Contribution system.

24. The Eco-Contribution is levied on beverage, detergent and toiletry items as these are deemed by the Authorities to be the major sources of packaging waste. Between 2006 and 2008, the number of packaging waste producers paying Eco-Contribution increased marginally, from 462 to 526 producers. This amounts to approximately 20 percent of the producer population subject to packaging waste obligations.

25. Although, the Eco-Contribution system started being implemented in 2005, the legal framework regulating the Eco-Contribution refund and exemption systems came

into affect in January 2010. The exemption application form for producers was subsequently issued in August 2010 and 85 such applications have been submitted as on September 2010.

26. As an economic tool, the Eco-Contribution system has had mixed results. It has managed to generate revenue to offset the costs of producers' non-compliance. It also played a positive role in the modest packaging waste recycling achieved. This could be concluded from the following:

- Packaging producers subject to Eco-Contribution reported a significant increase in recycling between 2006 and 2008: from a mere 51 to 7,763 tonnes.
- In 2008 Eco-Contribution payers reported about 60 percent of the total declared packaging waste recycled. (The 2008 packaging waste-related data has not yet been verified by MEPA).

27. Despite these positive factors significant levels of non-compliance with packaging waste regulations by producers subject to Eco-Contribution payers prevail. It is likely that the Eco-Contribution's full potential was circumscribed for a number of years because the legal link between Eco-Contribution exemptions and packaging waste recycled was not crystallized until 2010, namely because Government wanted to see sound packaging-related audit trails from producers.

28. This performance audit has also noted a gap in the economic instruments aimed at boosting the recycling capture rate from households, which in 2008 stood at 28 percent. Government's proposed deposit-refund system for single-use beverage containers was rejected by producers and retailers, on account that it would stifle competitiveness. Producers currently offer little direct incentive to boost recycling by households and other consumers.

Overall Conclusions

29. This performance audit has shown that the implementation of producer responsibility is gathering momentum. Despite the progress attained, the amount of packaging waste recycled by producers is still considerably below the legally set national targets. This in turn renders it difficult for Malta to reach the national packaging waste recycling targets set by EU legislation.

30. The audit noted an insufficient administrative capacity in the entities concerned with producer responsibility implementation. Particularly, a lack of human resources prohibited MEPA from fully exercising its regulatory and enforcement function. Despite the prevailing producer non-compliance, the Authority was not

in a position to take any enforcement action. Additionally, MEPA has not been able to verify producer declarations regarding the amount of packaging put on the market and recycled.

31. The economic instruments used to boost recycling by producers have, until recently, been marked by slow implementation. Due to landfill fees subsidies, the landfill - recycling price differential is still weighted in favour of the former. Recently, improvements in this regard have been registered as the landfill price subsidy has been reduced. The current fee charged remains significantly below the break-even level. However complete removal of subsidies is envisaged to take place by 2012. The gradual removal of the subsidy is deemed partly justified because of the need to avoid inflationary backlash.

32. As an economic tool, the Eco-Contribution system has had mixed results. It is likely that the Eco-Contribution's full potential was limited for a number of years because the legal link between Eco-Contribution exemptions and packaging waste recycled was not crystallized until 2010. This was mainly because Government first wanted to see sound packaging-related audit trails from producers.

33. Producer responsibility implementation for packaging waste was undertaken as part of the overall strategy for sustainable waste management. Despite the complexities associated with the implementation of producer responsibility for packaging waste, notable progress has been registered. However, significantly more needs to be done. In this regard, the concerted efforts of Government, producers and other critical stakeholders, such as local Government and consumers, is crucial to enable the objectives of the packaging waste policy to be fulfilled.

34. To date, Government has provided the legislative and infrastructural frameworks needed to enable producers to implement their packaging waste recycling responsibilities. It has also undertaken the role of facilitator and carried out regular educational campaigns. However, the mechanisms to regulate and enforce have as yet not proved fully adequate. Producers' recycling efforts have increased significantly, albeit from a minority of producers. However, greater efforts, from more producers, are still needed.

Recommendations

35. In view of the issues raised by this audit, the National Audit Office proposes the recommendations outlined below. Given that certain factors influencing packaging recycling are externally determined, it becomes particularly important that Malta optimizes the implementation components which are internally determined.

i. Give increased logistical assistance to producers

Increased Government logistical assistance to producers may help quicken the pace at which producers undertake the substantial start-up tasks required for packaging waste recycling. For example, assistance appears critically needed to help producers estimate the packaging they put on the market annually, given that less than half the estimated producer population is declaring the packaging put on the market annually. Such capacity building assistance is particularly needed since over 95 percent of Malta's businesses are micro-enterprises, with limited human resources specialized in waste management.

ii. Improve the administrative capacity of Government entities concerned

The audit noted a significant shortage in the administrative capacity of most Government entities involved in producer responsibility implementation. Now that the infrastructural and legislative frameworks are in place, producer responsibility implementation pace will significantly quicken if the management and enforcement components are optimized.

- ***Strengthen the MRRA's administrative capacity***

The Ministry for Resources and Rural Affairs (MRRA) may benefit from having additional human resources allocated to waste policy implementation tasks, particularly to liaise with the multiple stakeholders concerned.

- ***Strengthen MEPA's administrative capacity***

The Unit within MEPA responsible for the regulation and enforcement of producer responsibility is severely understaffed. This audit highlighted the need for MEPA to be given the relevant human resources to be able to undertake its regulatory and enforcement obligations. The recruitment of non-scientific staff should not be overlooked as various tasks, such as data compilation and management, are not technical in nature.

- ***Strengthen OPM's administrative and coordinating capacity***

The audit notes that, since March 2008, the policy-making, regulatory and coordinating remit has been shifted from MRRA to Office of the Prime Minister (OPM). Consequently, the latter needs to build up the relevant administrative capacity. It is recommended that OPM develops an adequate administrative capacity so that it may fulfil its vast environment-related role.

This would also enable OPM to provide the top level, central coordination that is critical for effective waste management strategy implementation. It would also enable a more robust regulatory and enforcement function.

iii. Set up an integrated waste management database

Waste data of relevance to OPM, MEPA, MRRA, and NSO should be compiled in an integrated up-to-date electronic database. Each entity in question would have retrieval and input access dependant on its role within the waste management policy process.

iv. Undertake an empirically-based packaging waste situation analysis

MEPA's current estimates of packaging waste generated annually depend upon an extrapolation from data submitted by a proportion of producers. The audit recommends that the entities concerned, namely MEPA, NSO and the MRRA, undertake a detailed study including field research as necessary, so as to arrive at more reliable estimates of packaging waste generated.

v. Give direct enforcement powers to MEPA

Currently MEPA is empowered to take defaulting producers to court – a lengthy and expensive process. It is recommended that MEPA be also empowered to levy financial penalties on producers who fail to submit their annual packaging waste-related returns.

vi. Link financial assistance to private stakeholders with specific packaging waste recycling improvements

It is recommended that Government financial assistance to private stakeholders, including refuse vehicle owners, be linked to specific improvements required.

vii. Continue gradual removal of subsidies on landfill fees

So as to minimize the current financial advantage of landfilling over recycling, it must be ensured that the necessary mechanisms be put fully in place, so that the outstanding landfill subsidies may be removed by 2012, as contemplated by Legal Notice 382/2009.

viii. Continue improving efficiency of recyclables' collection and processing systems

The recyclables collected through Bring-in-Sites only cost about €20 per tonne to process, while those collected through the Recycle Tuesdays scheme require €150 per tonne to process. Consequently, it is recommended that further studies be undertaken, by producers and Government, to explore how processing costs may be reduced and how the revenue potential of the collected recyclables may be improved. Particularly, consideration should be given to collect certain packaging waste streams separately from households.

ix. Minimise port-related recycling expenses

Since 2001, Government and producers have noted that potential recycling cost savings may be reaped if port-handling procedures and charges are revised with regard to waste being exported for recycling. It is recommended that this long identified savings potential be realized so as to enhance packaging waste recycling by producers.

x. Review the Eco-Contribution's effectiveness with regard to producer responsibility

In the longer-term, a review of the Eco-Contribution's effect on packaging waste recycling by producers should be undertaken so as to evaluate the Eco-Contribution's appropriateness and effectiveness in this regard.

xi. Finalise the relevant payment mechanism so that producers recycling packaging waste through Government-owned facilities pay the costs incurred promptly and fully

Now that producers have been recycling packaging waste at SAWTP for over a year, the payment mechanism involved should be finalized as the crux of producer responsibility for recycling is financial responsibility.

It is recommended that the present invoicing time lag of about one year be reduced and that producers be requested to pay the initial agreed rate promptly. Additionally, it is recommended that the payment terms agreed with producers be set out in a written agreement.

Chapter 1



The prevailing situation

Chapter 1 – The prevailing situation

1.1 Introduction

1.1.1 The National Audit Office has conducted a performance audit on the initiatives that Government has undertaken to implement producer responsibility with regard to packaging waste recycling.¹ The audit evaluated the relevant Government initiatives undertaken in the eight years between 2001 and 2009.

1.1.2 This Chapter outlines the audit aim and objectives, and briefly defines producer responsibility. Additionally, it presents a situation analysis of the progress achieved in the implementation of packaging waste producer responsibility. This snap shot of the prevailing situation also provides information related to the extent to which producers are complying with their reporting obligations vis-à-vis the Regulator Malta Environment and Planning Authority (MEPA). The ensuing discussion evaluates the extent to which producers are carrying out the financial responsibilities related to their packaging waste obligations.

1.2 Audit aim and objectives

1.2.1 The audit sought to determine the extent to which Malta was being effective in implementing packaging waste producer responsibility. Consequently this audit analysed the main components used by Government to bring about producer responsibility for packaging waste recovery, namely the:

- management of the implementation process;
- regulation and enforcement of this producer responsibility; and
- economic instruments used to incentivise this producer responsibility.

¹ The audit did not cover the implementation of other responsibilities of packaging producers, or the responsibilities that producers have for other waste streams besides packaging waste.

1.3 Audit methodology

1.3.1 Various sources were used in conducting this audit. A literature review of various documents and Governmental entities was undertaken. The key documentation include the National Waste Management Strategy (2001) and the draft 2009 Strategy Update, the 2001 National Waste Management Plan and the draft 2008-2012 Waste Management Plan for the Maltese Islands, the Situation Audit of the National Waste Strategy conducted in 2005, Malta Environment and Planning Authority's packaging producer register, National Statistics Office (NSO) business-related statistics, as well as data provided by the Ministry of Malta Resources and Rural Affairs (MRRA) and WasteServ Malta Ltd (hereafter referred to as WasteServ). The audit was conducted with reference to the various relevant national and European Union (EU) packaging waste-related legislation. A full bibliography of the documents reviewed is attached at the end of the report.

1.3.2 Information was also obtained through various meetings conducted with officials of relevant Government entities, namely MRRA, WasteServ, Office of the Prime Minister (OPM), MEPA, Department for Local Government and NSO. Additional meetings were conducted with the main producer representatives.

1.3.3 The potential limitations of this study, mostly emanating from the scarcity of waste-related data available, are included in Appendix I.

1.4 Audit background

Producer responsibility: what is it?

1.4.1 Producer responsibility is an extension of the “polluter pays” principle.² Also known as “extended producer responsibility”, this principle emphasizes that producer responsibility extends to the proper management of any waste arising from the product, particularly at the product’s end-of-life.³ Producer responsibility is being implemented by EU Member States with respect to waste streams, including packaging waste, for which EU legislation sets annual national recycling targets. Appendix II presents a detailed discussion of the subject matter, with reference to the local scenario.

1.4.2 Maltese legislation defines packaging producers as the persons who, in the course of their economic activity, put packaging for the first time on the market in Malta.⁴ By this definition, Malta has therefore assigned producer responsibility for packaging to local manufacturers and importers.

1.4.3 Producer responsibility implementation for packaging waste recycling was undertaken so that Malta may achieve its national packaging waste recycling targets.⁵ This was initiated by issuing the Packaging and Packaging Waste Regulations (PPWR) (L.N. 277 of 2006) which sets out packaging producers’ responsibility with regard to packaging and packaging waste.

1.4.4 These regulations oblige Maltese producers to annually recycle a net percentage of the packaging waste resulting from the packaging they put on the market in that year. Producers are assigned two recycling targets each year, namely a target for total recycling and a target for material recycling to be achieved. Total recycling mainly comprises material recycling, energy recycling and composting. Material recycling is the process which reclaims the materials contained in the packaging waste either for their original purpose or for other purposes. These regulations effectively assigned producers the same packaging waste recycling targets that Malta has under EU legislation. Figure 1 refers.

1.4.5 The onus to implement producer responsibility lies clearly with producers. Government’s role in this regard is to provide the mechanisms that regulate, enforce and monitor the extent to which producers are assuming

their responsibilities. In this respect, Government has also assumed the role of facilitator and has only intervened to stimulate the market and to provide for certain facilities in view of potential market failures.

1.4.6 Producer responsibility for packaging waste recycling forms part of the national waste strategy. The Ministry for Resources and Rural Affairs is therefore the implementation leader. Within the MRRA, WasteServ has been delegated this implementation role. MRRA also had the policy-making role until March 2008, after which date this role was transferred to the OPM. The related regulation and enforcement is being undertaken by the designated competent authority, the Malta Environment and Planning Authority.

1.5 Initiatives undertaken to implement producer responsibility for packaging waste recycling

1.5.1 Since 2001, Government has sought to put in place the organisational, legal and infrastructural frameworks required to implement waste recycling and packaging waste producer responsibility. The main initiatives are:

- Undertaking strategic planning relevant to waste recycling and producer responsibility, notably the 2001 National Waste Management Strategy, the 2001 National Waste Subject Plan, as well as the 2009 Update to the National Waste Management Strategy and the 2008-2012 National Waste Management Plan which are in draft form at the time of printing this report.
- Setting up the necessary organisational frameworks, namely:-
 - setting up a national waste management service provider, WasteServ, in 2002;
 - setting up the MEPA and in turn designating it as the regulatory Competent Authority on producer responsibility implementation;
 - appointing the MRRA as the institutional implementation leader in 2001;
 - appointing the MRRA as the policy maker between 2001 and March 2008, after which OPM assumed this role.

² As cited in <http://www.ilsr.org/recycling/epr/index.html>, accessed on 20 November 2009.

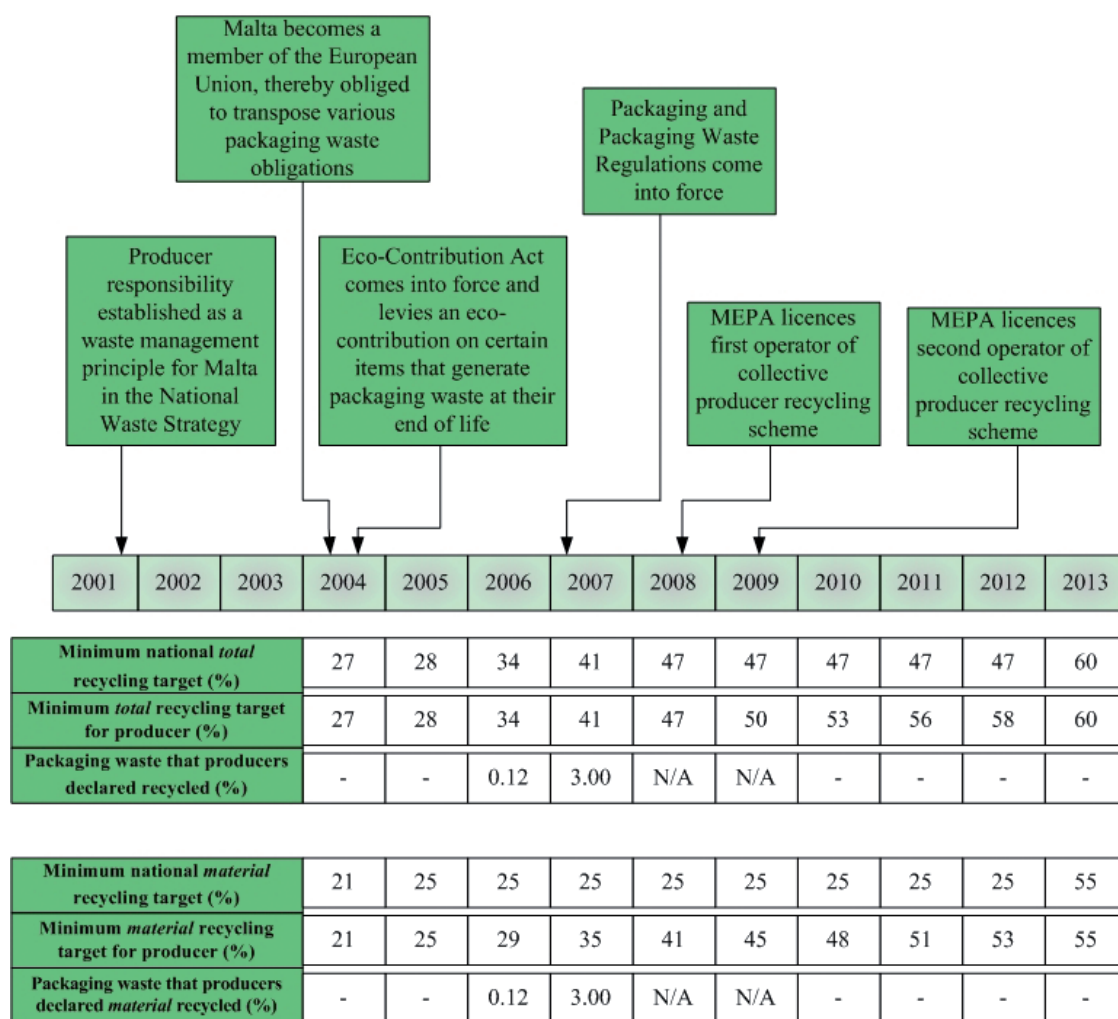
³ Extended Producer Responsibility (EPR) entails making manufacturers responsible for the entire lifecycle of the products and packaging they produce, including the waste management aspect. Retrieved from <http://www.ilsr.org/recycling/epr/index.html> and http://www.oecd.org/document/19/0,3343,en_2649_34281_35158227_1_1_1_1,00.html, accessed on 21 June 2010.

⁴ L.N. 277 of 2006, Waste Management (Packaging and Packaging Waste) Regulations, 2006, Regulation 3.

⁵ Ibid, Schedule 3, Regulation 8.

- Bringing into effect the legislative framework necessary to implement producer responsibility with regard to packaging, namely, through Legal Notice 277 of 2006 (amended by LN 426 of 2007).
 - Putting in place Government-run collection and processing infrastructure, namely:
 - upgrading Sant’Antnin Waste Treatment Plant (SAWTP), including the building of a Material Recovery Facility (MRF) able to process 36,000 tonnes of recyclable material annually. The MRF came in operation in March 2008 (Private waste management service providers have existed prior to this date);
 - setting up about 300 Bring-in-Sites in Local Councils and about another 200 in schools to collect packaging and other recyclable waste;
 - launching the Recycle Tuesdays initiative, in May 2008, aimed at collecting recyclable waste directly from households (kerb side collection);
 - undertaking educational and awareness campaigns including the eco-skola programme.
 - Discussing, with producer representatives, various producer responsibility issues.
 - Introducing economic instruments aimed at incentivising producers to undertake their packaging waste recycling responsibilities, namely the Eco-Contribution system, introduced in 2004, and reducing Government subsidy on the landfill price charged to the private sector for mixed municipal waste in June 2010.
- 1.5.2 Initiatives referred to in paragraph 1.5.1 have enabled both Government and producers to start recycling

Figure 1 : Timeline of packaging-related producer responsibility implementation



Sources: L.N. 277 of 2006, Waste Management (Packaging and Producing Waste) Regulations; Producer recycling declarations from MEPA, and taken as a percentage of estimated packaging waste resulting from packaging as estimated by MEPA.

packaging waste. Figure 1 shows the timeline relating to the major milestones regarding the implementation of producer responsibility.

1.5.3 Figure 1 also denotes the progress achieved in the implementation of producers' packaging waste recycling responsibility up to 2007. Producer performance for 2008 and 2009 could not be considered for the purposes of this study as MEPA is still in the process of validating producers' declarations for 2008. Additionally MEPA has only recently requested producers to submit their packaging-related declarations for 2009.

1.5.4 It is to be noted that producers' collective recycling schemes have publicly declared that in 2008 and 2009 they have recycled almost 2,250 and 6,900 tonnes respectively. Although these figures indicate significant progress, they are still low compared to the target levels set by the Packaging and Packaging Waste Regulations.

1.6 The prevailing situation

1.6.1 To undertake responsibility for packaging waste recycling, producers must comply with the following legal obligations:

- i. Be responsible for the recycling of a set percentage of the packaging waste resulting from the packaging they put on the market annually.⁶
- ii. Register with MEPA as packaging producers.
- iii. Submit to MEPA the quantity and nature of packaging they put on the market and details about the packaging waste recycling undertaken annually.
- iv. Submit to MEPA an audit trail which ascertains that packaging waste was recycled in ways that are legally permissible and that was undertaken in accordance with health and environment EU legislation.

1.6.2 Gauging the extent of producer recycling compliance requires first determining how much packaging waste results from the packaging put on the market each year by the producer population. This is because producers'

recycling obligation is legally set as a percentage of the packaging waste resulting from the packaging producers put on the market.

1.6.3 Packaging waste resulting from packaging put on the market may be estimated through various methodologies. MEPA, the entity designated as the competent authority to regulate the implementation of producer responsibilities, sought to estimate this quantity primarily from the producer declarations submitted to MEPA in 2006, whereby 1,608 producers declared the amounts packaging placed on the Maltese market during 2006. The estimated 2006 packaging waste quantities were extended backwards to 2004 and 2005 by MEPA. MEPA has recently estimated that, in 2007, packaging waste resulting from packaging put on the market amounted to about 48,000 tonnes. Table 1 refers. The resulting quantities of packaging waste generated in Malta were found to be in line with confidence intervals derived through the analysis of relationships between the economic activity and generation of waste across the EU.⁷

1.6.4 However, the MEPA estimation diverged significantly from the estimated projections given in the 2009 Waste Management Strategy Update. The NAO brought this issue to the attention of the entities concerned, namely the OPM and MRRA.

1.6.5 The MEPA and Strategy Update estimation methods adopted are subject to certain limitations, namely:

- Packaging waste-related data is fragmented and limited by some gaps, for example, packaging waste recycling data from private waste recycling companies is still limited;
- Some producer declarations contain errors and most do not contain the relevant audit trail;
- MEPA has not yet audited producer declarations regarding packaging placed on the market.

1.6.6 An audit review of MEPA's producer register indicates that the 2006 extrapolated figure was underestimated as, according to MEPA, some producers

Table 1 : MEPA-estimated packaging waste resulting from packaging put on the market

2004 (tonnes)	2005 (tonnes)	2006 (tonnes)	2007 (tonnes)
41,196	42,333	43,568	48,000

Source: MEPA.

⁶ Packaging and Packaging Waste Regulations, LN244/06, Regulation 8(2).

⁷ "Gathering Data on Packaging and Packaging Waste 2004-2006", 9 July 2008, page 2, MEPA.

Table 2 : Estimated packaging producer population

	2005	2006	2007	2008
Estimated packaging producer population	n/a	2,516	2,757	2,676

Source: Derived by NAO through NSO data.

submitted their declarations after MEPA had conducted its extrapolation exercise. Indeed, it results to the NAO that the total amounts, as reported to MEPA by a segment of the producer population, exceeds the total packaging quantity extrapolated for the whole produce population.

1.6.7 For the purpose of this audit, estimates of packaging waste resulting from packaging put on the market derived from the MEPA estimations will be used. Such an approach was adopted since an empirically-based estimate was not available.

1.6.8 Gauging the extent of producer compliance also requires determining the annual producer population. This data was not in existence; therefore, the NAO estimated the packaging producer population subject to packaging waste recycling obligations by summing the number of manufacturers and importers that annually registered with the NSO. Table 2 gives the estimated packaging producer population. The authorities deem that the larger packaging producers are those producing beverages, toiletry and detergent items and consequently initially focused on working with these producers.

1.6.9 Having established the two fundamental factors, namely the annual packaging waste resulting from packaging put on the market and the producer population, the audit subsequently sought to evaluate the extent that producers are complying with their obligation to recycle

a set percentage of the packaging waste resulting from the packaging put on the market.

1.7 Producer recycling of packaging waste appears to be gathering momentum, but is still significantly below set targets

1.7.1 Packaging waste recycling by producers appears to have started gathering momentum since two collective recycling schemes are now in operation and have declared recycling significant packaging waste quantities in 2009. However, the declared, and as yet unverified, amount is still well below the legally set target. It is to be noted that, in 2009, producers were obliged to recycle 50 percent of the packaging put on the market.

1.7.2 Table 3 illustrates the extent of declared producer compliance with producers' packaging waste recycling targets. Packaging waste recycling declared by producers for 2006 and 2007 was very low.⁸ The audit could not assess producer recycling performance for 2008 and 2009 as MEPA had not yet validated the 2008 producer declarations and was in the process of receiving 2009 declarations at the time of writing. Public declarations by collective producer recycling scheme operators indicate that packaging waste recycling by producer is on a rising trend. However, the gap with the recycling target remains

Table 3 : Extent of producer compliance with packaging waste recycling targets

	2005	2006	2007	2008	2009
Packaging waste annual total recycling target for producers, as a percentage of estimated total packaging put on market	28%	34%	41%	47%	50%
Total recycled packaging waste declared by producers, as a percentage of estimated total packaging put on market	0	0.12%	3%	n/a	n/a
Packaging waste material recycling target for producers	25%	29%	35%	41%	45%
Packaging waste that producers declared they material recycled, as a percentage of estimated total packaging put on market	0	0.12%	3%	n/a	n/a

Source: MEPA Producer registers for 2006 and 2007; producer recycling targets as set in the Packaging and Packaging Waste Regulations (LN277/2006). Note: Producer Packaging declarations for 2008 not yet validated by MEPA; declarations for 2009 not yet submitted to MEPA.

⁸ MEPA producer register for 2006, 2007.

a considerable one. It is to be noted that the recycling target is set to rise to 60 percent by 2013.⁹

1.8 Producer declarations have not yet been verified by MEPA

1.8.1 Producers are also obliged to register with MEPA and to declare the weight of packaging that they annually put on the market. Producers are obliged to fulfil these two obligations annually.

1.8.2 The number of packaging producers registered with MEPA, as a percentage of the estimated packaging producer population, has declined from 66 percent in 2006 to 37 percent in 2008. However, those who remained registered reported an increase in the overall recycling and the material recycling that they undertake.

1.8.3 The number of packaging producers, registered with MEPA, who declared the amount of packaging that they put on the market has also declined from 60 percent in 2006 to 34 percent of the estimated packaging producer population in 2008.

1.8.4 Additionally, most of the producers who declared recycling packaging waste did not submit to MEPA any documentation issued by a recycling facility substantiating their recycling claims. Nor has MEPA audited producer declarations.¹⁰

1.9 The minority of producers who are recycling packaging waste are bearing the collection and administrative costs entailed, however, the producers recycling packaging waste through Government facilities have still not paid the recycling costs entailed

1.9.1 Producers are gradually taking responsibility for organising the collection of packaging waste for subsequent

recycling. The audit sought to determine whether producers are bearing the financial costs incurred for recycling the packaging waste. The related findings are given below.

1.9.2 The financial costs entailed in packaging waste recycling are namely incurred to collect, process and recycle the packaging waste, as well to administer and publicise the recycling initiatives. This audit indicated that the minority of producers undertaking recycling are taking financial responsibility for the collection and educational campaign costs entailed. Some of these producers have reported recycling packaging waste utilising the services of a private waste management service provider. If following verification MEPA certifies these figures, then it can be reasonably assumed that these producers are bearing the full recycling costs entailed.

1.9.3 Since June 2009, a number of producers have been recycling packaging waste through Government's waste management service provider, WasteServ. With regard to the payment due from producers utilising SAWTP services, WasteServ has stated that: *"Discussions are still on going; however there is a general agreement on the proposed initial rates [€39 per tonne of recyclable material processed]. These shall be revised periodically to reflect the market value of the products sold from the Material Recovery Facility. The consultation paper (circulated in Oct 2008 to recovery scheme operators) indicates a revision period after six months. . . . a significant quantity of material still needs to be sold, a factor which shall impact on the final rate".*¹¹

1.9.4 Between July 2009 and June 2010, WasteServ processed about 9,550 tonnes of packaging waste for producers. Table 4 refers. WasteServ has stated that, in June 2010, the producers concerned were invoiced at the initial rate of €39 per tonne of recyclable waste processed for 2009 and for the first six months of 2010. WasteServ added that an open book exercise will enable it to reconcile the costs incurred with the revenue earned from the sale of packaging waste. In turn, this will determine whether producers owe further money or whether Wasteserv should reimburse any arising surplus to the producers.

Table 4 : Estimation of recycling expenses incurred by WasteServ on behalf of producers

	July-Dec 2009	Jan- June 2010
Packaging waste processed by WasteServ on behalf of producers	3,363 tonnes	6,187 tonnes
Net treatment cost per tonne of packaging waste recycled	€ 85.75	N/A
Net treatment costs incurred by WasteServ to recycle packaging waste obo producers	€ 288,377	N/A

Source: WasteServ.

⁹ Waste Management (Packaging and Packaging Waste Regulations) SL435.69, Regulation 8, Schedule 3.

¹⁰ The lack of regulatory auditing is addressed in Chapter 4.

¹¹ WasteServ statement in email dated 16 June 2010.

1.9.5 After deducting the recycling revenue earned, between July and December 2009, WasteServ spent an average net cost of €85.75 per tonne. Waste Serv has noted that this figure is not final since it is still refining the costings model. Additionally, some waste fractions which yielded net revenue on being sold for recycling are also being taken into account. WasteServ has not issued the recycling certificates and these shall be made available when their rate of payment is established. WasteServ is still in the process of determining the average net cost per tonne incurred for the period January-June 2010.

1.9.6 The foregoing indicates that when producers pay the initial agreed rate of €39 per tonne they would still owe Wasteserv more than half the net costs based on 2009 provisional estimates. This should eventually be settled following the joint ‘open book’ reconciliation exercise by WasteServ and the producers.

1.9.7 WasteServ has pointed out that the process of invoicing and reconciliation is linked to the issuing of a recycling certificate for the material received, processed and directed for recycling. This process is rather lengthy and in many instances may take a number of months since it is dependent on prevailing markets and also the issuing of final documentation by the recycling facility. A study was also carried out by MRRA to guide WasteServ on the issuing of supporting Recycling Certificates. Results are now available and WasteServ has been informed of actions required to be taken.

1.9.8 It is acknowledged that the ‘open book’ reconciliation exercise cannot be undertaken as soon as the packaging waste is processed, as it is a complex exercise and WasteServ has to sell the packaging waste before undertaking the reconciliation. Taking one year to issue the first invoice may have also been due to the system going live for the first time. Normally, however, taking one year to start issuing invoices at the agreed initial rate is deemed

to be rather protracted. The MRRA pointed out that such a situation evolved since the Ministry was still negotiating with producers regarding processing costs. However, the National Audit Office reiterates that until producers reimburse WasteServ for the outstanding recycling costs incurred on their behalf, the producers would be taking on financial responsibility for collection, administration and publicity, but not for the processing and recycling costs entailed.

1.10 Between 2005 and 2007, producers’ low recycling resulted in the resource loss of over 43,000 tonnes of recyclable waste and about 54,000 cubic metres of landfill space

1.10.1 Between 2005 and 2007, most of the packaging waste that producers did not recycle – about 43,200 tonnes - ended up being landfilled by Government. This constitutes a loss of material resources such as metals and plastics. Their recycling would have also used less energy than that needed to produce packaging from virgin materials. Between 2005 and 2007, the packaging waste that producers failed to recycle constituted 5.5 percent of total waste landfilled and used about 54,000 cubic meters of landfill space. Table 5 refers.

Between 2005 and 2007, low packaging waste recycling by producers resulted in financial costs of about €2.5 million which were recouped from the Eco-Contribution

1.10.2 The packaging waste that producers did not recycle was dealt with by Government. The latter recycled a small portion of this waste, while the rest was landfilled since it was included with other general waste streams such as municipal solid waste. Between 2005 and 2007 this

Table 5 : Environmental liabilities due to low packaging waste recycling by producers

	2005	2006	2007	2005-07
Total waste landfilled in non-hazardous landfill (tonnes) (A)	250,326	247,099	278,537	775,962
PW landfilled because producers failed to recycle it (tonnes) (B)	11,709	14,197	17,334	43,240
PW landfilled because producers failed to recycle it as a percentage of total waste landfilled in Ghallis non-hazardous landfill (%)	4.6	5.7	6.2	5.5
Landfill space wasted because producers failed to reach packaging waste recycling target (m ³) (C)	14,636	17,746	21,667	54,049

Sources: (A): NSO Press Release of Jan 2010, page 2; (B): taken to equal producers' recycling noncompliance percentage gap multiplied by total PW landfilled; (C): 0.8 tonne of landfill packaging waste is assumed to occupy 1m³ of landfill space, as per assumption regarding Municipal Waste taken in Waste Management Plan, page 38.

recycling and land filling cost Government an estimated €2.5 million.¹² Such cost comprises landfilling costs calculated at the break-even rate of €30 a tonne, and the estimated expenses incurred to transport the packaging waste to the landfill. It excludes the financial and social costs of the ensuing environmental externalities. In addition, between 2008 and 2009 Government spent over €650,000 to help start-up producer responsibility implementation and about €3 million on public education recycling campaigns. These expenses were recouped from the annual Eco-Contribution due from producers on packaging waste. Paragraph 4.3.13 refers.

Producers' low packaging waste recycling makes it difficult for Malta to reach its national packaging waste recycling targets

1.10.3 Malta has opted to achieve its national packaging waste recovery targets primarily through assigning such targets to producers. Consequently, producers' failure to reach their targets makes it difficult for Malta to reach its national packaging waste recycling targets under EU legislation. Figure 1 refers.

1.10.4 Malta has already received a pre-infringement letter querying why the 2006 targets have not been met.

1.10.5 If Malta continues to miss its national packaging waste targets, the EU Commission may initiate infringement proceedings and eventually also refer the case to the European Court of Justice (ECJ). If the latter finds Malta in breach of Community Law, Malta may incur one of the potential penalties indicated hereunder:

- An average daily penalty of €2,160 for each day of delay after the delivery of the judgment under Article 228, amounting to €788,400 per year.
- A minimum fixed lump sum of €180,000. (This minimum fixed lump sum is periodically revised).
- The daily penalty and the lump sum penalty may be imposed simultaneously or separately.

1.10.6 It is important to note that, besides paying the penalties imposed, Malta will also need to comply with the ECJ judgment by coming in line with its obligations within a short period of time.

1.11 Conclusion

1.11.1 This Chapter has shown that packaging waste recycling by producers has started to gather momentum. This is mainly due to the Government and producer initiatives undertaken to ensure that producer responsibility for packaging waste recycling is implemented. It must be acknowledged that the implementation of producer responsibility necessitated a change in culture and waste management practices. Additionally, producer responsibility had to be preceded by the setting up of the necessary organisational, infrastructural and legislative frameworks. These measures are yielding a steady increase in producer recycling of packaging waste, particularly collective producer recycling schemes. Despite the significant progress registered, a number of concerns prevail.

1.11.2 Packaging recycling by producers is still significantly below set recycling targets. This recycling non-compliance is resulting in material resources being landfilled and in the loss of scarce landfill space. It is also making it difficult for Malta to reach its national packaging waste recycling targets set by EU legislation. This increases the risk for Malta of receiving infringement proceedings by the EU in this regard.

1.11.3 The mechanisms which seek to ensure that producers carry the financial responsibility related to the recycling of packaging waste are not yet fully in place or operative. An agreement between Government and producers relating to processing costs is still to be finalised. Moreover, cost of packaging waste by producers through the Government facilities are still to be recouped by Government.

1.11.4 Additionally, problems relating to the producers' annual registration with MEPA and declarations relating to the quantities of packaging waste resulting from packaging placed on the market and recycled persist. This situation can be detrimental to sound audit trails, management information and, not least, the resulting environmental liabilities. Producers packaging recycling performance is particularly difficult to gauge since recent national waste composition surveys have not been successfully undertaken.

1.11.5 The subsequent Chapters of this report seek to determine the causes of the situation depicted herein.

¹² The collection and landfilling expenses were derived by first estimating the packaging waste quantity that producer was annually obliged to recover; PW that producer annually failed to recover; Collection liability incurred by Government which is equal to the Collection cost per tonne multiplied by PW tonnes producer failed to recover; Landfilling liability incurred by Government is equal to Landfilling cost per tonne multiplied by PW tonnes producer failed to recover.

The next Chapter discusses issues relating to Government management of producer responsibility implementation. Chapter 3 evaluates the extent to which the designated Regulator, MEPA, is encouraging further producer responsibility implementation through regulation and enforcement. Chapter 4 assesses the role of economic instruments adopted to stimulate producer responsibility for the packaging waste recycling.



Chapter 2

The implementation process

Chapter 2 – The implementation process

2.1 Introduction

2.1.1 The audit reviewed Government efforts to ensure that packaging producers comply with their recycling responsibilities. The audit particularly sought to identify what factors may have constrained Government initiatives to spearhead producer responsibility for packaging waste recycling. Government's implementation role was to establish the mechanisms that enable effective regulation, enforcement and monitoring. In this respect, Government has also assumed the role of facilitator and has only intervened to stimulate the market and to provide for certain facilities in view of potential market failures. Despite Government's initiatives, it is ultimately producers themselves who have to shoulder their legal responsibilities. This Chapter presents the emergent findings.

2.1.2 It must be noted that packaging waste recycling by producers is particularly challenging to implement because it actually aims to simultaneously implement two new concepts for Malta: producer responsibility and packaging waste recycling.

2.1.3 The 2001 Solid Waste Management Strategy for the Maltese Islands (SWMS) set producer responsibility as a key principle for waste management in Malta. Generally, the draft 2009 SWMS Update reiterates this principle. The Strategy also deems the EU Packaging Waste Directive to be one of the two most difficult Directives for Malta to transpose, implement and enforce.¹³

2.1.4 In 2001, the then Ministry of the Environment (now MRRA) was assigned the lead role in the strategy implementation process and to be “the focus from where the changes will happen”. The same Ministry was also appointed the policy maker in this field. The implementation role was divested onto WasteServ whilst

the Ministry retained its role as the policy maker in this field. This arrangement was put in place with the inception of WasteServ.

2.1.5 In March 2008, the policy-making role was transferred to the Office of the Prime Minister (OPM). In this role, OPM is responsible to monitor the implementation of the waste management strategy and Waste Management Plan. It is also to ensure the drawing up of more detailed plans for each waste stream, including packaging waste. OPM has initiated the managerial capacity building needed to undertake its role. However, OPM deems that the administrative capacity to date does not enable it to comprehensively fulfil its waste-related policy making and coordinating role.

2.1.6 In June 2010 the 2009 Strategy Update was discussed in Parliament and is now in the final stages of approval. The 2008 – 2012 Waste Management Plan was submitted to the European Commission and the OPM is awaiting feedback in this regard.

2.1.7 Additionally, a Project Team was to be established “to see that the various requirements contemplated in the Strategy - whether of a policy, legislative, institutional, organisational, economic, financial, technical or operational nature, be put in place and functioning”.¹⁴ The Project Team was to report directly to an Inter-Ministerial Steering Group on a regular basis.

2.1.8 Government Strategy set some objectives which are specifically about producer responsibility implementation and many more which, albeit indirectly, are crucial for producer responsibility implementation.¹⁵ Table 6 lists the implementation milestones set in 2001, and reiterated by the 2009 Strategy Update, required for the implementation of producer responsibility for packaging waste recycling.

¹³ 2001 Strategy, page 43. The other most difficult Directive to implement is deemed to be the Landfill Directive.

¹⁴ Ibid, page 14.

¹⁵ Ibid, page 82.

Table 6 : 2001 National Waste Strategy objectives relating to the implementation of producer responsibility for packaging waste recycling

Strategy objectives relevant to producer responsibility implementation	Strategy target date	Implementation status as at August 2010	Institution assigned primary responsibility
Set up an Inter-Ministerial Steering Group/Central Coordination to supervise, coordinate, monitor Strategy implementation.	2002 Q1	Set up for a few months and then dismantled.	Ministry for the Environment (MoE)
Complete detailed implementation plans, including producer responsibility implementation plan.	2002 Q2/3	Included in draft 2008-2012 Waste Management Plan.	MoE up to March 2008; OPM after March 2008
Establish producer responsibility schemes for recycling of certain products.	2002 Q4	First collective producer packaging waste recycling scheme licensed in 2006, second scheme in 2009.	MoE: 20 role MEPA, Ministry for Economic Services, other associations
Establish an Environment Protection Agency.	2002 Q4	MEPA established but not adequately resourced.	MoE up to March 2008; OPM after March 2008
Establish an autonomous Waste Management Services Agency, to provide and manage public waste management facilities and services.	2002 Q4	WasteServ established in Nov 2002.	MoE
Build a new Material Recovery Facility (MRF) and upgrade Sant' Antnin Waste Treatment Plant (SAWTP) to sort and process dry recyclable materials.	2003 Q4	Started in 2007 and completed in March 2008, a MRF with processing capacity of 36,000 tonnes/year.	MoE
Establish convenient bring-in centres/drop-off points for recyclables, to introduce source segregation and separate collection of recyclable materials from MSW.	2004 Q2/3/Q4	Installed about 430 Bring-in-sites between 2004 and 2008. Introduced Recycle Tuesdays in May 2008.	MoE
Revise MSW collection contract conditions/performance specs.	2002 Q2/3	Contract revised by WasteServ in mid-2002, but not yet adopted as awaiting regionalisation of local councils for waste management purposes.	DLG
Set stringent technical and financial criteria for MSW collection contracts and strengthen supervision and control of MSW collection service providers.	2002 Q2/3	Intention reiterated in 2008-2012 draft Waste Management Plan and 2009 Strategy Update.	DLG and MEPA respectively
Specify and provide sufficient resources for public sector WM functions.	2003 Q4	EU entry awaited to access EU funds, OPM and MEPA still lack human resources.	MoE
Enact relevant subsidiary regulations.	On going	Packaging Waste Regulations enacted in 2006, Eco-Contribution Act in 2004, Eco-Contribution Exemption Regulations in 2010.	MoE
Undertake on-going communications with all stakeholders.	Ongoing	Ongoing.	MoE

2.1.9 Table 6 illustrates that various milestones critical for producer responsibility implementation have been undertaken with a significant time lag. This implementation delay had already been flagged by a situation audit of the 2001 Strategy implementation, conducted by Government, in 2005. The NAO has sought to identify what factors delayed, or are slowing down, the implementation of the Strategy objectives in question. The findings are presented below.

2.2 Packaging waste recycling is partly hampered by external constraints

2.2.1 Packaging waste recycling targets are particularly difficult to reach because the Maltese authorities and producers only have partial control over the situation. Certain external factors constrain packaging waste recycling in Malta. These are briefly explained below.

The international price of recyclates

2.2.2 The price that Malta can earn for recyclable packaging waste is set on the international market. This tends to be volatile echoing any changes in international variables, such as the price of fossil fuel and international demand for products made from recyclates. In general, recyclates' prices tend to be lower than the recycling costs incurred, namely because supply of recyclables exceeds demand. In turn, demand for products made from recyclables tends to be low as they generally cost more than products made from virgin material. However, since May 2009, most recyclates have been enjoying the highest prices since 2004, due to the high fossil fuel prices. If the latter maintains its general upward trend, this will help maintain demand, and a better price, for recyclates.

Malta's small island circumstances

2.2.3 Malta's small size limits the economies of scale that may be reaped in the recycling sphere and makes the viability of recycling plants unlikely. Malta's island circumstances, in turn, dictate that waste be shipped for recycling, which raises the already high recycling costs further.

2.3 While recycling targets call for a fast implementation pace, economic and social realities necessitate a more gradual pace

2.3.1 The national packaging waste recycling targets set under EU legislation are significant: by 2013, Member

States must annually recycle 60 percent of all packaging put on their territory. For many of the older 15 EU Member States that have been recycling since the early nineties, gradual increases in their recycling performance would suffice to reach this high EU recycling target. In contrast, since recycling in Malta only started taking off after 2004, Malta would have to adopt a fast pace to reach the steep national packaging waste recycling targets by 2013.

2.3.2 In theory, such a fast pace may be possible if economic and social factors are not taken into account. It is to be noted that Government is implementing waste management change while simultaneously consulting the stakeholders concerned, and ensuring that packaging waste recycling measures do not have crippling inflationary effects.¹⁶ Consequently, while legal recycling targets call for a fast-paced implementation, economic and social realities have necessitated a more gradual pace.

2.3.3 The pace to reach stakeholder consensus may, however, have been slower than necessary because noncompliant producers were not being prodded with any enforcement measures by the regulatory body, MEPA. (This issue will be addressed in Chapter 3). Additionally, the MRRA pointed out, there were a series of inherent conflicting views between the different economic operators, which had to be resolved, before packaging waste recycling by producers could take off.

2.4 Packaging waste recycling by producers is below target, partly because most implementation measures have to date been start-up in nature

2.4.1 The audit evaluation indicates that Government's producer responsibility implementation efforts have not yet fully borne fruit partly because most initiatives undertaken have been start-up in nature. These include the initiatives outlined in paragraph 1.5.1.

2.4.2 This audit acknowledges that producers also had to undertake various start-up initiatives. On an individual basis, producers had to set up waste data management systems which include determining the amount of packaging they put on the market and ensure that they comply with the obligatory reporting requirements. Additionally, they had to establish the logistics of collecting and recycling packaging waste. Producers also had to determine the financing of the arising compliance costs. On a collective basis, producers had to undertake extensive coordination, namely to set up collective producer recycling schemes. This process also entailed discussions with central Government. Subsequently, producers had to enter into agreements with a significant number of local councils

¹⁶ A Solid Waste Management Strategy for the Maltese Islands, First Update, Consultation Document January 2009, page 19.

to start taking on responsibilities for packaging waste collected from households.

2.4.3 Given the start-up nature of these initiatives, it is likely that some years need to pass before the full potential of these initiatives translate into concrete results. However, recycling by packaging producers may also have taken long to gain momentum because some of the start-up initiatives were themselves hampered by certain factors. These are discussed in Sections 2.5 and 2.8.

2.5 Until 2008, the Government-owned Material Recovery Facility provided limited recycling throughput

2.5.1 Until the Government-owned Material Recovery Facility was built in 2008, Government had an MRF based on temporary activities but this was below acceptable work conditions and throughputs could not be improved. The private recycling sector was itself a fledgling one in the process of development.

2.5.2 The Government-owned MRF at Sant Antnin Waste Treatment Plant (SAWTP), originally contemplated to commence operations by the end of 2003, was completed in early 2008. The MRRA has explained that, since the MRF was co-financed through EU funds, its building could only be undertaken after Malta's EU accession in 2004. MRRA has stated that the building of the MRF was subsequently delayed until 2007 for the reasons explained below:

- a. The development permit and Environmental Impact Assessment process took longer than expected since changes to the development proposal had to be made due to public concerns raised about the proposal.
- b. Vetting procedures for the Works tender of the SAWTP project took longer than expected mainly due to the complexity of such a highly technical tender. Additionally, an Evaluation Committee member resigned in the course of the evaluation process and the evaluation could not be finalised prior to the approval of a new nominee.
- c. The tender comprised two lots: Lot 1 (locally funded) and Lot 2 (EU funded). When the tender for Lot 1 was awarded, an objection relating to this award was filed. The (Contract) Board of Appeals confirmed the Evaluating Committee's recommendation and the contract was endorsed in January 2007.

- d. Following the recommendation and contract preparation to award the contract of Lot 2 to the first ranked bidder, this bidder's holding company filed for a Suspension of Payment. As a result, the Evaluation Committee reviewed its original recommendations and recommended awarding the Lot 2 contract to the second ranked bidder. The draft Contract was prepared and awaiting endorsement by the Department of Contracts when the second ranked bidder also filed for insolvency. The Evaluation Committee reviewed its second recommendation and recommended awarding the contract to the third ranked bidder. The contract for the award of Lot 2 was finally endorsed in September 2007.¹⁷

2.6 Producer-organised systems to collect separated packaging waste started in 2006 but only gathered significant momentum when producers started taking on responsibility for the Recycle Tuesdays Scheme in 2009

2.6.1 The Packaging and Packaging Waste Regulations enacted in 2006 notified packaging producers of their recycling duty. These Regulations also outline that this duty could be upheld by producers forming or joining collective producer recycling schemes. Such a collective effort raises the recycling feasibility for individual producers, especially given that in Malta over ninety percent of businesses are small and medium sized enterprises. Collective recycling schemes also enable producers to capture the packaging waste that ends up with households.

2.6.2 The first collective producer recycling scheme was granted a MEPA operating permit in 2006. A second collective scheme was granted such a permit in 2009.

2.6.3 From 2009 onwards these two collective recovery scheme operators have entered into arrangements so as to pay for the collection of separately collected recycling waste from most local councils. Collective recycling scheme membership fees were also reduced resulting in more producers joining such schemes. These factors were a catalyst in raising the packaging waste collected by collective producer recycling schemes for subsequent recycling through SAWTP.

2.6.4 In addition to the practical implementation difficulties, producers also had to undergo a culture change as regards waste disposal and responsibility. Difficulties entailed adopting new data compilation practices, organising themselves into collective schemes and

¹⁷ WasteServ email dated 18 May 2010. The audit did not evaluate the SAWTP development process as this did not form part of the audit scope.

absorbing the arising compliance costs. Consequently, the authorities had to factor in these difficulties in their efforts to stimulate producers to recycle. In this respect, Government sought to mitigate producers' difficulties by providing financial start-up assistance amounting to about €650,000 between 2008 and 2009.

2.7 The implementation process was partly impaired by certain key organisational weaknesses

Top management structures and personnel needed to spearhead, coordinate and review the implementation process were seriously lacking

2.7.1 The 2001 Waste Strategy assigned the Ministry for the Environment the lead role in the strategy implementation process and set this Ministry as *“the focus from where the changes will happen”*. Additionally, a Project Team was to be established *“to see that the various requirements contemplated in the Strategy . . . be put in place and functioning”*.¹⁸ The Project Team was to report directly to an Inter-Ministerial Steering Group on a regular basis.

2.7.2 The Inter-ministerial Steering Group and Project group were set up but discontinued after a few months. As noted by the draft 2009 Strategy Update, *“various entities have each embarked upon their waste management strategy independently and no central coordination is being achieved.”*¹⁹

Task managers contemplated to implement key strategy measures were not appointed

2.7.3 The 2001 Strategy (Section 3.6) underlined that for major strategy measures, including producer responsibility implementation, a project manager was to be appointed and sufficient resources allocated both to undertake the initial detailed implementation planning and then to manage the implementation through to completion. Contrary to the Strategy's intentions, a project manager for producer responsibility was not appointed. However, the MRRA explained that, in lieu of a project manager, a committee comprising a representative from MEPA, MRRA and the Ministry for the Finance, Economy and Investments was set up. The committee met on a weekly basis.

2.7.4 The audit evaluation indicates that the implementation of packaging waste producer responsibility

may have been sub-optimal due to insufficient human resources at top managerial levels relating to waste strategy implementation and at producer responsibility implementation level.

2.7.5 The lack of sufficient key management personnel in the implementation process is also likely to have perpetuated a waste data management deficiency. This is discussed below.

2.8 Poor packaging waste data management constrains implementation plans and reviews

2.8.1 The authorities concerned are seeking to implement producer responsibility for packaging waste recycling within the context of not having a complete picture about the annual packaging put on the market and who are the major packaging producers concerned. This situation potentially constrains Government's ability to formulate sound implementation plans and to review the effectiveness of its initiatives with regard to producer responsibility.

2.8.2 To provide adequate planning and implementation measures regarding all municipal waste, a reliable waste situation analysis is a prerequisite. A situation analysis is obtained by undertaking waste surveys on a periodic basis. On three occasions (2005, 2009, 2010), the National Statistics Office, in coordination with WasteServ Malta, has sought to undertake a municipal waste composition analysis (survey). However, in all three occasions the survey did not yield the desired results. In 2005, it was not undertaken as the necessary equipment was not made available, despite acquiring EU funds for it. In 2009 and 2010, the surveys were conducted but did not yield meaningful results because the waste sample was not undertaken appropriately.

2.8.3 The absence of periodic waste situation analysis prevents the authorities from reliably determining any changes in waste composition patterns. Towards this end, OPM has explained that a further attempt is being made to conduct the survey and discussions are being held with MEPA, NSO and WasteServ to ensure co-ordination and adoption of appropriate methodologies.

2.9 Conclusion

2.9.1 Packaging waste recycling by producers is below target, partly because most implementation measures have, to date, been start-up in nature. Producer recycling

¹⁸ 2001 SWMS, Executive Summary, page 14.

¹⁹ 2008 Update, page 13.

performance has also been constrained by certain external, administrative and stakeholder (producers’) constraints. As a result of these difficulties, various critical milestones for the implementation of producer responsibility have been, or are being, undertaken with a significant time lag.

2.9.2 While recycling targets call for a fast implementation pace, economic and social realities were deemed to necessitate a more gradual pace. The implementation of this policy is also constrained through Malta’s small island circumstances which limit economies of scale opportunities for recycling waste.

2.9.3 A significant contributory factor for the delays in implementing producer responsibility for packaging waste recycling was due to administrative capacity constraints at the MRRA and OPM. The data and information concerns highlighted in the chapter are also seen as hindering the management of the implementation of producer responsibility.

2.9.4 An equally significant delaying factor related to producers having to organise themselves individually and collectively to deal with the ‘new’ packaging waste responsibilities and the ensuing costs. This process was further complicated and delayed by conflicting views held by different economic operators concerned, which had to be resolved before producer recycling could take off. The low compliance rates highlight that producers also encountered practical difficulties to adhere to the regulations. Moreover, in the interest of competitiveness, producers had to balance between the extent of absorbing or passing on costs to the consumer. The protracted discussions producers’ representatives had with Government tend to stress the constraints faced by producers to comply with the packaging waste regulations.

2.9.5 The next Chapter of this report discusses the regulatory and enforcement functions regarding the implementation of producer responsibility for packaging waste.

Chapter 3



The regulation and enforcement role in producer responsibility implementation



Chapter 3 – The regulation and enforcement role in producer responsibility implementation

3.1 Introduction

3.1.1 The Waste Management (Packaging and Packaging Waste) Regulations as provided for by Legal Notice 277 of 2006, establishes MEPA as the competent authority to ensure compliance with these regulations. Accordingly, the Authority is required to:²⁰

- set up and maintain databases on packaging and packaging waste so that the implementation of the regulations can be monitored;
- take measures to help prevent the formation of packaging waste following consultation with producers and industry organisations and the Minister;
- charge producers fees as necessary to cover the costs of the administration of these regulations;
- formulate a specific chapter on the management of packaging and packaging waste, including the measures it takes with respect to these regulations;
- set packaging waste-related obligations on any economic operator (producers, retailers and wholesalers); and
- initiate legal action against defaulters.

3.1.2 Based on the foregoing, this Chapter sought to evaluate MEPA's role in regulating and enforcing the producers' responsibility to attain specified targets for recycling packaging waste.

3.2 The regulatory and enforcement function is weak

3.2.1 As illustrated in Table 7, the number of packaging producers registered with MEPA declined between 2006 and 2008. Although no research has been undertaken in this regard by MEPA to determine the actual reasons for such a decline, the Authority attributes this situation to three plausible causes, namely:

- Producers might have been under the impression that registration was a one-time procedure, and thereby were not required to submit the relevant forms in the following years.
- Producers may have ceased to remain producers or ceased operations.
- The lack of enforcement action, which is attributable to MEPA's limited human resources.

3.2.2 Table 7 also shows that those producers who remained registered reported an increase in the overall recycling and the material recycling undertaken within the same period. This data indicates that packaging waste recycling is being undertaken by a minority of the producer population – over 14 percent in 2008.

3.2.3 The claims made by the producer recycling schemes indicate that packaging recycling is on a rising trend – rising from virtually zero in 2005 to about 7,000 tonnes of packaging waste declared recycled by collective producer recycling schemes in 2009. However, the gap with the recycling target remains a considerable one.

²⁰ Waste Management (Packaging and Packaging Waste) Regulations (2006).

Table 7 : Producers' compliance with reporting obligations

	2006		2007		2008	
	Producers	Percentage of estimated producer population	Producers	Percentage of estimated producer population	Producers	Percentage of estimated producer population
Producers registered with MEPA	1,656	66%	1,338	49%	985	37%
Producers who declared the weight of packaging they put on the market	1,504	60%	1,226	44%	911	34%
Producers who declared undertaking some form of recycling	10	0.40%	99	4%	387	14%
Producers who declared material recycling some Packaging Waste	10	0.40%	99	4%	351	13%

Source: MEPA producer register and NSO business register. Data available only for the period 2006 to 2008.

3.3 Human resource constraints and complex administrative processes inhibit effective regulation and enforcement

3.3.1 The weak regulatory and enforcement functions are mainly the consequences of severe human resource constraints experienced by the Regulator. Matters are further compounded by the complex administrative arrangements in place. These issues are discussed further below.

MEPA lacks the human resources needed to regulate

3.3.2 The lack of human resources is evident as the Unit in charge of the Packaging and Packaging Waste Regulations, Unit D of the Environment Protection Directorate has about 15 employees and needs to deal with the implementation of around 88 EU Directives, Decisions and Regulations. Within this Unit, less than one full time staff equivalent is dedicated to manage the packaging waste regulations. Such circumstances prohibit MEPA from undertaking any inspections and the relative producer monitoring initiatives.

3.3.3 MEPA's effectiveness in safeguarding the local environment, in part, depends on the capacity of human resources available. In accordance with the 2009 Strategy Update, Government is committed to carry out a detailed review and assessment of the human resources and training

needs with respect to the waste management responsibilities and functions within MEPA. In addition to the MEPA reforms proposed by Government in January 2009, this should ensure that the Authority is properly resourced to provide more efficient operations and be better equipped to enforce its decisions.

3.3.4 MEPA has identified a number of additional staff requirements for Unit D, namely, team managers, environment protection officers, compliance officers, secretary and environment technician. It is envisaged that, by mid-2011, Unit D will be allocated 19 additional personnel, fourteen of whom will be allocated on waste-related work. This additional staffing would reinforce and strengthen the human resource capacity within this Unit and thereby enhance the enforcement as well as monitoring procedures with regard to packaging waste.

Regulator operates annual reapplication systems which potentially magnify the workload unnecessarily

3.3.5 Packaging Waste producers are required to register with MEPA on a yearly basis. Moreover, packaging waste recovery operators are legally requested to re-apply for their operating license annually.

3.3.6 Such annual reapplications increase the administrative workload undertaken by MEPA significantly. In order to streamline this process, in August 2010, MEPA introduced online registration for producers.

Regulator is not equipped with adequate enforcement mechanisms

3.3.7 To date, the Authority has not initiated any legal action against non-compliant producers. The human resources constraints at MEPA are seen to impede the Authority from initiating any enforcement action against defaulters.

3.3.8 Additionally, the mechanisms currently available to the Authority regarding the imposition of penalties in cases of non-compliance may not be sufficient to discourage non-compliant producers. MEPA is legally empowered to take non-compliant packaging waste producers to court. However, such a process is considered as cumbersome and time consuming, which may be detrimental to undertake timely enforcement action. Additionally, MEPA is not legally empowered to fine producers who fail to submit annual packaging declarations.

Fragmentation of data compilation does not facilitate regulation and enforcement

3.3.9 MEPA is also responsible for the development and management of databases on packaging and packaging waste. Such information would be critical to effective management and monitoring of the implementation of Packaging Waste legislation.

3.3.10 The setting up of an integrated data system and procedures for data collection, verification and reporting is still being developed. For this purpose, MEPA is co-ordinating efforts with the National Statistics Office (NSO), the latter being the competent authority responsible for the Waste Statistics Regulation. Such integrated databases would assist MEPA in identifying a complete reliable

picture of the packaging producers and packaging put on the market. In turn, this would also allow MEPA to report pursuant to reporting obligations – namely with regards Malta's EU obligations.

3.3.11 The development and management of packaging waste databases at MEPA are, however, constrained by the unavailability of human and financial resources. To date the pooling of resources by the Governmental entities involved in the Regulation and implementation of packaging waste legislation has been very limited. MEPA contends that the lack of financial support may potentially hinder the respective entities from carrying out initiatives and studies concerning the collection and analysis of waste data in Malta.

3.4 Conclusion

3.4.1 This Chapter has shown that the designated Regulator, MEPA, has been unable to fully regulate and enforce packaging waste legislation. Consequently, the level of producer non-compliance remains significant.

3.4.2 This situation is attributable to the severe staff shortages experienced by the Regulator. Moreover, the Regulator is also faced with financial constraints, namely related to the undertaking of waste-related surveys and the auditing of producer declarations, which render the undertaking of 'packaging waste' initiatives more problematic. Matters are further compounded through MEPA's limited enforcement powers and the existing fragmentation and information gaps relating to packaging waste activities.

3.4.3 The next Chapter of this report discusses the role of economic instruments regarding the implementation of producer responsibility.



Chapter 4

The role of economic instruments in producer responsibility implementation

Chapter 4 – The role of economic instruments in producer responsibility implementation

4.1 Introduction

4.1.1 Government has sought to use economic instruments to further motivate producers to recycle packaging waste, namely: the landfill-recycling price differential and the Eco-Contribution system. Additionally, Government strategy refers to a deposit-refund system for certain beverage containers.

4.1.2 As noted in Chapter 1, packaging waste recycling by producers has to date remained well below targets. This low achievement cannot be attributed exclusively to one system component but is likely to be caused by a combination of factors, including the economic instruments adopted. This Chapter sought to determine the impact of the afore-mentioned economic instruments on the implementation of the packaging waste regulations.

4.2 The landfill-recycling price differential has been improved gradually by reducing the landfill price subsidy and improving the recycling system's efficiency, however the differential is still sub-optimal

4.2.1 For most types of packaging waste, recycling is much more costly than landfilling. This landfill-recycling cost differential does not make recycling an enticing prospect for producers.²¹ The incentive to recycle is

diminished further when landfilling fees are kept below costs through Government subsidisation.²²

4.2.2 Since 2001, Government has sought to optimise the landfill-recycling price differential so as to enhance producer recycling in two ways: by not keeping the landfilling fee artificially low through subsidization, and by offering producers waste recycling services at the least cost.²³

4.2.3 In the 2001 National Waste Management Strategy, Government set out the objective of progressively increasing landfill fees from the then prevailing subsidized level of €0.77 per tonne to €30 per tonne, which is the estimated true landfilling cost incurred by Government. This increase was planned to be achieved over a transitional period of three years, by end 2004 so as to give waste producers sufficient time to adapt to the higher fees.²⁴

4.2.4 The draft 2009 Waste Management Strategy Update and the 2008-2012 Waste Management Plan for the Maltese Islands (Consultation Document) both reiterate that “*all gate fees of Government owned facilities be revised to reflect the true cost of managing that waste*”.²⁵ Moreover, any subsidy on landfill fees is also counter to the EU Waste Framework Directive and Landfill Directive.

4.2.5 In reality, the landfill fees started to be raised much later than contemplated by the 2001 Strategy. It was only in October 2009, that landfill fees were raised from €0.77 to €20 per tonne of mixed municipal waste for Local Councils.²⁶ In June 2010, this increase became applicable to the private sector as well. The remaining

²¹ 2008-2012 draft Waste Management Plan for the Maltese Islands, page 42.

²² Ibid, page 87.

²³ Ministry for the Environment, ‘A Solid Waste Management Strategy for the Maltese Islands’, October 2001, p. 59-60. (Charging full costs is also required to comply with the polluters’ pays principle and as required by European policy and legislation).

²⁴ Ibid. pages 59-60. (Objectives C1, C2 and C5).

²⁵ Waste Management Plan for the Maltese Islands 2008-2012, Consultation Document, pages 123-124, 82-83.

²⁶ It is to be noted that subsidies on fees of landfilling inert waste were removed as early as 2004.

variance of €10 is to be eliminated by 2012 through further increases in landfill fees, as set out in LN 382 of 2009. The circumstances contributing to the delay in landfill fee subsidy removal is discussed in paragraph 4.2.8

4.2.6 To mitigate the recycling price disadvantage further, through WasteServ, Government is also providing recycling services to producers. WasteServ achieves this by charging producers for recycling services at break-even cost and by striving to improve the waste processing efficiency of SAWTP.

4.2.7 The audit included an evaluation of Government's efforts to optimise the landfill-recycling price differential and the emergent findings are given below.

The removal of subsidies on landfill fees was delayed primarily to prevent inflationary backlash and to ensure stakeholder buy-in

4.2.8 Subsidization of landfill fees started to be removed in October 2009 – eight years after the intended date originally set in the 2001 National Waste Management Strategy.²⁷ The MRRRA contended that the factors listed hereunder contributed to these delays:

- a. Subsidy removal carried the risk of significantly raising inflation and production costs, which could in turn reduce local manufacturers' competitiveness and cause economic difficulties for consumers.
- b. In order to strengthen the audit trail relating to landfill fees due from producers, it was deemed that Refuse Collection Vehicles (RCV) were required to be equipped with weighing scales. However, a grant of €100,000 awarded to RCV owners to upgrade their vehicles did not specifically indicate the installation of weighing scales. MRRRA has stated that such grant was intended to finance vehicle upgrades to enable the implementation of the grey bag system (Recycle Tuesday collection).
- c. Government undertook extensive discussions with the private stakeholders concerned, spanning a number of years, prior to the partial removal of landfill fees subsidies.
- d. The removal of landfill fees subsidies was done with caution to minimise the risk of increased fly tipping.

High costs potentially deter producers from recycling

4.2.9 The costs for producers to recycle packaging waste are partly externally determined. However, recycling costs are also partly determined by internal factors, namely, the processing costs, the revenue potential of the collected recyclables and the port-related expenses.

Externally determined factors

4.2.10 External factors render recycling cost for Maltese producers higher than for producers in larger EU Member States. These factors relate to economies of scale issues, Malta's small island circumstances and the externally set price for recyclates (discussed in Section 2.2). The above-mentioned factors are extraneous to Government and Maltese producers and thus unavoidable.

4.2.11 However, recycling cost is also partly dependent on internally determined factors and therefore, to a certain extent, may be contained by local stakeholders. These factors are discussed below.

Internally determined factors - The processing cost

4.2.12 Processing costs tend to increase significantly with the extent of sorting that the collected recyclable waste requires. When different recyclable waste streams are collected co-mingled together these require much more sorting, and hence are more costly than waste streams which are separated at source and collected separately. For example, Wasteserv estimates that it costs an average of €150 to sort one tonne of co-mingled waste collected through Recycle Tuesdays. On the other hand, one tonne of recyclable waste from Bring-in-Sites (which is separated at source) costs only an average of €23 per tonne to process.²⁸ The higher cost of Recycle Tuesdays is deemed to be the cost that has to be incurred to enable participation from households who will not use Bring in Sites. Additionally, MRRRA has pointed out that a significant proportion of the paper collected through the grey bag is contributing to significant costs in the sorting of recyclables from the grey bag.

4.2.13 Processing costs also rise as the reject rate of the collected recyclable waste increases. In turn, the reject rate is dependent on the quality of the waste collected for recycling. For example, if the recyclable waste is disposed of containing contaminants such as oil or chemicals, although potentially recyclable, this waste may have to be rejected. Additionally, such contaminated recyclable waste

²⁷ A Solid Waste Management Strategy for the Maltese Islands, 2001, page 84.

²⁸ WasteServ estimates drawn up in 2008.

Table 8 : The reject rate arising from processing collected recyclable waste by WasteServ

	Recyclable Waste Processed by WasteServ (tonnes)	Waste recycled by WasteServ (tonnes)	Rejects (tonnes)	Rejects as a percentage of recyclable waste processed (%)
2005	4,615	1,365	638	14
2006	5,928	3,138	930	16
2007	4,504	4,107	1,304	29
2008	10,315	5,317	4,907	48
2009	12,928	11,374	2,461	19
Totals 2005-2009	38,290	25,301	10,240	25

Source: WasteServ emails dated 19 April 2010 and 4 May 2010.

Notes: Figures quoted in Table 8 include some recyclable waste which was not packaging waste, but which was collected and sorted together with packaging waste. Waste rejected or recycled in one particular year may have been processed in previous years and kept in storage for some time.

may contaminate the whole batch of recyclable waste it is collected in, further increasing the reject rate. If non-recyclable waste such as food remains, is disposed of in systems meant to capture recyclable waste it will increase both the sorting and rejects-related costs.

4.2.14 The audit sought to evaluate how the reject rate has varied between 2005 and 2009 with regard to the recyclable waste collected by WasteServ. It is to be noted that the relevant data for private waste recyclers is not available.

4.2.15 The WasteServ data given in Table 8 indicates that rejects, as a percentage of recyclable waste processed, peaked in 2008, when rejects comprised almost half the recyclable waste processed. Subsequently, in 2009, it decreased to about 19 percent. This is a marked improvement over the previous years, but may still contain room for additional improvement. For example, the UK Environment Agency (2008) considers 10.8% to be a typical average reject rate for Material Recovery Facilities. Figure 2 refers.

4.2.16 As noted by WasteServ, the quantity of rejects is subject to the method of collection. For instance, when recyclables are collected separated at source (not commingled) the efficiency potential is even bigger with the reject rate being typically about one percent.

Internally determined factors - The revenue potential of the collected recyclables

4.2.17 The price for selling recyclable material is set on the international market. However, recyclables' selling price is also partly linked to the quality of the recyclable material, namely, the lower the contamination the better the price it will fetch. Thus, producers will improve revenue earning potential of their packaging waste by

minimizing contamination and ensuring good packaging waste quality. WasteServ undertakes extensive sorting to enhance such quality and during 2009 improved its selling procedure. However, WasteServ has noted that the paper collected in the Recycle Tuesdays has a higher risk of being contaminated by chemicals or liquids contaminating containers co-mingled with the paper.

Figure 2 : MRF reject rates

Materials Recovery Facility (MRF) reject rates

Reject rates for kerbside sort schemes typically are <1%.

Reports of MRF reject rates vary:

- The UK Environment Agency (2008) considers **10.8%** to be a typical average reject rate.
- Waste Data Flow 2007/08 reports total MRF rejects at **7%** (of total input by weight).
- Residue rates at MRFs involved in a study undertaken by the UK Waste and Resources Action Programme (2006) ranged widely with average reject rates in the range **12% to 15%** (of total input by weight) and those for the most efficient MRFs in the range **2% to 5%**.

However, these reject rates reflect only the residual material sent for disposal. Reports from UK reprocessors suggest that they send a further fraction to landfill reflecting contaminants in the material supplied to them.

Source: Waste and Resources Action Programme, 'Choosing the Right Recycling Collection System', 2006.

Internally determined factors - Port-related expenses

4.2.18 While shipping costs are unavoidable, as recyclables generally have to be exported, a shipping cost component that is locally determined comprises port-related fees. Port charges are also paid on exported recyclables raising export-related costs. The 2001 Strategy had set the objective “to conduct a review and evaluation of existing port handling charges and systems . . . with a view to identifying and, where justified and appropriate, reducing or removing any economic or other barriers that may exist.”²⁹

4.2.19 The 2008-2012 Waste Management Plan for the Maltese Islands notes that “the current rates charged by port service providers significantly hinder the export potential of recyclables and undermines the feasibility of this market. . . a reform in port handling operations is [still] needed to gain potential cost savings as a result of revised handling procedures and resulting charges.”³⁰

4.2.20 Improving recyclates’ processing efficiency and quality, and minimising port-related expenses should reduce the costs of compliance for producers. However, as recycling costs are generally much higher than landfilling costs, optimising the landfill-recycling price differential is not likely to be sufficient to induce producers to recycle. For this reason, Government has sought to strengthen the incentive for producers to recycle through another economic instrument – the Eco-Contribution system.³¹

4.3 About sixty percent of the declared packaging waste recycled was undertaken by a minority of packaging producers subject to Eco-Contribution, in 2008

4.3.1 In September 2004, Government introduced the Eco-Contribution system through the enactment of the Eco-Contribution Act.³² This system partly aims to encourage the recycling of products, including certain products which at their end of life constitute packaging waste. The Eco-Contribution system obliges producers of specified products to pay a per-item tariff. A refund or exemption from paying this Eco-Contribution would be granted to producers if the latter submit proof of recycling

the packaging in question. The Eco-Contribution is paid on each product item by the producer who puts that product on the market for the first time.³³

4.3.2 The Eco-Contribution is not levied on all products which become packaging waste at their end of life, but only on beverages, toiletries and detergent products sold in plastic, glass or metal containers.³⁴ These products were earmarked because they were deemed by the authorities to generate the bulk of packaging waste generated in Malta. These products are also considered to have high recycling potential since their packaging waste tends to have minimal contamination.

4.3.3 The Eco-Contribution charged is generally higher than the recycling cost per item so as to induce producers to opt for recycling and to cover financial costs relating to the resulting environmental externalities. Combined with unsubsidized landfill fees, this Eco-Contribution tariff was meant to tip producers’ balance in favour of recycling rather than landfilling. The VAT Department was subsequently designated as the competent authority to administer the Eco-Contribution Act.

4.3.4 Since the enactment of the Eco-Contribution Act, Government and producer representatives have had ongoing discussions on how to implement the Eco-Contribution exemption and credit mechanisms. In 2004 a Commission was also set up by Government to review the Eco-Contribution system and recommend how the system may be improved.³⁵

4.3.5 As a result of these initiatives, in January 2010, Government published the Eco-Contribution (Exemption) Regulations which established the Eco-Contribution exemption mechanism to be operated retrospectively from 1 July 2009.³⁶

4.3.6 In May 2010, the (Eco-Contribution Exemptions) Approving Body was set up. In August 2010, a call for exemption applications was issued and 85 applications have been received up to September 2010. At the time of writing, the Approving Body was in the process of validating and issuing the provisional certificates.

4.3.7 The audit evaluated the impact of the Eco-Contribution system on packaging waste recycled by Eco-Contribution packaging waste payers. This assessment

²⁹ 2001 Solid National Waste Strategy for Malta, page 63.

³⁰ 2008-2012 Waste Management Plan for the Maltese Islands, page 81.

³¹ Eco-Contribution (Exemption) Regulations, Regulation 4, Schedule 2.

³² Eco-Contribution Act 12 of 2004, Chapter 473 of the Maltese Law.

³³ Eco-Contribution Act Articles 3, 9, 12 (a) and (b).

³⁴ Ibid, First Schedule.

³⁵ Eco-Contribution Commission Report, February 2005, cited in the Waste Management Plan for the Maltese Islands, Consultation Document 2008-2012.

³⁶ Eco-Contribution (Exemptions) Regulations, 2010, LN 84/2010, Article 1 sets retrospective date.

Table 9 : Packaging waste producers paying Eco-Contribution compared to packaging waste producer population

	2006		2007		2008		2009	
	Qty	Percent	Qty	Percent	Qty	Percent	Qty	Percent
Estimated packaging waste producer population	2,516	100%	2,757	100%	2,676	100%	2,676*	100%
Packaging waste producers paying Eco-Contribution	462	18%	568	21%	526	20%	478	18%

Source: NSO and VAT Department. *2009 producer population was assumed to remain at 2008 level as at time of writing the relevant data was in the process of being compiled by NSO.

considered the extent of producer compliance to recycle packaging waste and report on it. This review also determined the Eco-Contribution paid to bring about this compliance.

The Eco-Contribution targets about a fifth of the producer population subject to packaging waste obligations

4.3.8 In 2009, the Eco-Contribution targeted about 18 percent of the producer population subject to packaging waste obligations. Table 9 refers. The MRRRA contends that Eco-Contribution was levied predominantly on items which already had a high recycling rate, i.e. beverage packaging. It was deemed that this high recycling rate should not be lost once the mandatory deposit-return was withdrawn due to issues of barrier to trade.

4.3.9 The VAT Department deems that the packaging waste producers quoted in Table 9 comprise all the packaging waste producers subject to Eco-Contribution. Consequently, for the purpose of this audit the packaging waste producers paying Eco-Contribution referred to in this Table are being considered to comprise all the packaging waste producers subject to Eco-Contribution.

A minority of the packaging waste producers subject to Eco-Contribution complied with their packaging waste reporting obligations

4.3.10 The audit sought to evaluate the extent to which the Eco-Contribution managed to induce the producers subject to it to comply with their reporting obligations. Table 10 refers.

4.3.11 In 2008, around 30 percent of packaging waste producers subject to Eco-Contribution complied with their obligation to inform MEPA how much packaging they put on the market. The extent of this reporting compliance

actually declined between 2006 and 2008. As indicated in paragraph 3.2.1, MEPA has not yet determined the actual cause of this situation.

4.3.12 In 2008, only about eight percent of the packaging waste producers subject to Eco-Contribution informed MEPA that they had recycled packaging waste in that year.³⁷ This constitutes a significant increase over the previous years, where less than one percent declared recycling packaging waste. In view of this low compliance rate, the Draft 2008-2012 Waste Management Plan for the Maltese Islands states that most of the producers paying Eco-Contribution preferred to “lean back, saying we have paid our contribution, now Government is responsible for doing everything what seems necessary to be done for managing the packaging waste”.³⁸

4.3.13 During the period 2006 to 2009, the packaging waste producers subject to Eco-Contribution declared an Eco-Contribution of around €4.7 million, €6.3 million, €6.8 million and €5 million respectively. This can be considered as the cost incurred due to producers’ low compliance and recycling rates. Such revenues are anticipated to decline when the Eco-Contribution exemption mechanism, coupled with increasing recycling by producers, take effect. It is to be noted that Government expenditure due to producer non-compliance would also decrease.

4.3.14 The Eco-Contribution did play a positive role in the modest packaging waste recycling achieved. This could be concluded from the following:

- Packaging producers subject to Eco-Contribution reported a significant increase in recycling between 2006 and 2008: from a mere 51 to 7,763 tonnes.
- In 2008 Eco-Contribution payers reported about 60 percent of the total declared packaging waste recycled. (It is to be noted that the 2008 packaging

³⁷ It is reiterated that MEPA has not yet validated these producer declarations.

³⁸ Draft 2008-2012 Waste Management Plan for the Maltese Islands, page 70.

Table 10 : Extent that PW producers subject to Eco-Contribution are complying with their PW reporting obligations

Year	Total PW producers subject to Eco-Contribution	Percentage of Eco-Contribution payers who:		
		also registered as packaging producers with MEPA (%)	informed MEPA of the packaging quantity they put on market (%)	declared recycling packaging waste to MEPA (%)
2006	462	50	49	0.22
2007	568	42	35	0.53
2008	526	38	30	8.17

Source: VAT Department and MEPA.

Note: Cross-checking could not be undertaken for 2009 as at the time of writing MEPA had not compiled the relevant data for 2009 yet.

waste-related data has not yet been verified by MEPA).

4.3.15 Additionally, the MRRA deems that the Eco-Contribution prodded producers to organize themselves into collective producer recycling schemes.

The Eco-Contribution's potential was possibly constrained because the exemption and refund mechanism was not in place for a number of years

4.3.16 Although the Eco-Contribution system started being implemented in 2005, the legal framework regulating the Eco-Contribution refund and exemption systems only came into affect in January 2010. The exemption application form for producers was subsequently issued in August 2010. Various producers expressed reluctance to recycle before the exemption mechanism was established.³⁹

4.3.17 The time lag in establishing the exemption and refund system partly arose due to the lengthy discussion undertaken between Government and producers on the issue, and partly because Government wished to see producer recycling results before concretizing the exemption and refund mechanism. The MRRA added that the exemption mechanisms was also delayed because Government wanted to see sound packaging-related audit trails submitted by producers.

4.3.18 The exemption process is currently being implemented by the recently appointed Exemption

Approving Body. Once the exemption mechanism is in place, the Eco-Contribution's full potential to induce recycling may still not be achieved if the VAT Department and the contemplated Exemption Approving Body do not have adequate resources to vet producers' declarations.

There is currently a gap in the instruments aimed at increasing the capture rate of packaging waste from consumers

4.3.19 The Eco-Contribution system aimed to incentivise producers. However, to help producers reach their recycling targets, consumers also need to be incentivised to recycle since between 51 and 66 percent of packaging waste is held by consumers.⁴⁰ This is particularly true for products which at their end of life become entirely packaging waste, such as beverage, toiletry and detergent products.

4.3.20 Capturing packaging waste held by consumers is logistically more complex and expensive than capturing transport-related packaging waste from warehouses or major retailers. To ensure that producers also target the more challenging consumer packaging waste, Government set the condition that producers will be eligible for Eco-Contribution exemption if 60 percent of the packaging waste they recycle is consumer-derived packaging collected from residential areas.⁴¹

4.3.21 The 2001 National Waste Strategy states that the ideal potential capture rate is 63 percent of the recyclable waste.⁴² However, according to the 2009 Strategy Update, the volume of recyclable waste being captured from

³⁹ Chamber of Commerce Press Releases dated 10 June 2010 and 17 June 2009; GreenMT Meeting on 3 Dec 2009.

⁴⁰ According to "Packaging Waste Surveys Methodological Approach" by NSO, 2005, page 15-16, consumer packaging is estimated between 51.4% and 66.2%. (Beverage consumer packaging comprises between 0.79*17= 13.4% and 0.79*23= 18.2% in addition to non-beverage household packaging that ranges 38 and 48%).

⁴¹ Eco-Contribution (Exemption) Regulations, Regulation 4, Schedule 2.

⁴² The capture rate measures the proportion of the potential yield of recyclable materials that is actually segregated and collected. Cited in the 2001 National Waste Management Strategy, Section 4.1 (Other Financial Assumptions), page 89.

households, albeit on the increase, is still low.⁴³ In 2008, the recyclables capture rate from households was of almost 28 percent. Until the household capture rate remains low it will be difficult for producers to obtain 60 percent of the waste they recycle from households, in order to be eligible for Eco-Contribution exemption.

4.3.22 This low capture rate is not for want of educational recycling campaigns, as between 2006 and 2009 Government spent almost €3 million on such campaigns.

4.3.23 In a bid to increase consumer participation in recycling schemes, Government considered a proposal by the beverage sector whereby a “Mandatory Deposit Refund System” for beverage packaging would be enforced. The retailing community objected to such an arrangement and therefore the proposal could not be implemented.

4.3.24 According to the draft 2008-2012 Waste Management Plan for the Maltese Islands, *“the proposed deposit-refund system was expected to increase the return and henceforth the recycling and recovery rates for beverage packaging. Also, the possibilities for material recycling could be improved because such containers would be returned rather clean and intact – compared to kerb side collection or bring in sites”*.⁴⁴

4.3.25 However, the stakeholders concerned, namely the retailers and producers, have questioned *“whether any mandatory deposit scheme would be advantageous for Malta, and whether benefits and disadvantages would be balanced.”* According to the 2009 Strategy Update: *“a decision about the enactment of such a new regulation has been postponed and is very unlikely to be realised”*.⁴⁵

4.3.26 The MRRA contended that producers’ representatives presented a case where mandatory deposit refund schemes would impinge on product competitiveness. In view of the lack of consensus, which would have rendered such an initiative ‘still born’, Government opted for kerbside collection implemented through authorized collective producer recycling schemes.

4.3.27 The foregoing implies that currently producers provide negligible economic incentives to consumers. On the other hand, Government has provided consumers, albeit indirectly, with the incentive to participate in recycling schemes. This is being done by charging Local Councils €20 to landfill a tonne of mixed municipal waste but only €0.50 to deliver a tonne of separate waste at SAWTP. This price differential incentivises local councils to recycle but is deemed too indirect to induce a significant increase in consumer/household participation. While local councils have to pay more if packaging waste is not separated by

households, in general the latter have no personal incentive to recycle. Nor are consumers deterred from disposing recyclables with mixed waste through disincentives, such as, through reduced collection frequency of mixed waste. Neither do producers offer any substantial incentives for consumers to recycle. However, a positive step in this direction, has recently been taken by various Local Councils through the reduction of skips for mixed waste.

4.4 Conclusion

4.4.1 Generally, the economic instruments used to boost recycling by producers have been marked by slow implementation.

4.4.2 With regard to removing the landfill fee subsidization, the slow implementation pace has been justified by the MRRA as a requisite in order to avoid inflationary backlash. However, this approach left it more profitable for producers to landfill packaging waste rather than recycle it.

4.4.3 As an economic tool, the Eco-Contribution has had mixed results. It has managed to generate revenue to offset the costs of producers’ non-compliance. Moreover, in 2008, about 60 percent of the producer recycling undertaken can be attributed to Eco-Contribution payers. Despite these positive factors, this Chapter has shown that significant levels of non-compliance with packaging waste regulations by producers subject to Eco-Contribution payers prevail. It is likely that the Eco-Contribution’s full potential was circumscribed for a number of years because the legal link between Eco-Contribution exemptions and packaging waste recycled was not crystallized until 2010.

4.4.4 The audit has also noted a gap in the instruments aimed at boosting the recycling capture rate from households. Government’s proposed deposit-refund system for single-use beverage containers was rejected by producers and retailers. Producers currently offer negligible incentives to boost recycling by consumers. Government has started putting incentives in place for local councils through the landfill-recycling price differential. However, in spite of Government incentives and educational publicity campaigns, the consumer still has limited direct incentive to recycle or disincentive to dispose of mixed waste.

4.4.5 Even with optimal economic instruments in place, recycling costs are likely to remain higher than landfilling costs, thus tempting producers to landfill rather than recycle. For this reason, economic instruments will generally need to be supplemented with an adequately strong regulatory and enforcement framework.

⁴³ 2008 household capture rate quoted in “A Solid Waste Management Strategy for the Maltese Islands”, First Update, Consultation Document (2009), pages 37.

⁴⁴ & ⁴⁵ Waste Management Plan for the Maltese Islands, 2008-2012, Consultation Document, MRRA, page 114.



Appendices

Appendix I – Audit limitations and assumptions

Lack of comprehensive and reliable data regarding packaging waste limited and slowed down the audit at various instances. This occurred particularly with regard to the quantity of packaging waste resulting from packaging put on the market and the producer population subject to packaging responsibilities. With regard to scarce waste-related data available, different sources had different estimations for the same item. This data problem is being addressed by the entities concerned, however, it is a symptom of, as yet, an unconsolidated waste data compilation system.

Producer data evaluation had to be undertaken with various limitations. Firstly, the audit was constrained to use producer declarations submitted to MEPA only for years 2006 and 2007. The 2008 producer declarations have not yet been validated by the authority, and the 2009 producer declarations were not yet submitted to MEPA at the time of writing.

Secondly, MEPA has not audited any producer declarations. Consequently all audit analysis is based on the best-case scenario assumption that producers' declarations are true and correct.

Appendix II – Producer responsibility: what is it?

Producer responsibility is an extension of the “polluter pays” principle. Also known as “extended producer responsibility”, this principle emphasizes that producer responsibility extends to the proper management of any waste arising from the product, particularly at the product’s end-of-life.

Countries implement producer responsibility as a means to:

- divert recyclable waste from landfill and so optimise the efficient use of landfill space;
- prevent the waste of recyclable resources contained in certain waste streams;
- increase the recycling of certain waste streams so as to achieve related national recovery and recycling targets set by EU legislation and by national waste strategies;
- shift the economic burden of waste management from Government and taxpayers, to the producers and consumers;
- internalise the environmental costs of products into product price;
- motivate producers to minimize the waste generated by their products;
- reduce the overall impact of waste on human health and the environment.

Producer responsibility is being implemented by various EU Member States with respect to waste streams for which EU legislation sets annual national recycling targets. These waste streams including packaging waste, have also been classified as priority legislation by the European Union's Fifth Environment Action Programme in view of the environmental impact of the waste streams concerned.

In most countries, producer responsibility is first applied to packaging and then to other products. Malta has emulated this approach by first implementing producer responsibility for packaging waste.

Under European Union legislation, Member States may assign producer responsibility to “*any natural or legal person who professionally develops, manufactures, process, treats, sells or imports products . . .*” It is up to each Member State to choose, from amongst the listed persons, whom to assign producer responsibility to. Thus, while the term ‘producer’ is defined on similar lines in many countries, the exact definition of producer may vary from one country to another.

Maltese legislation defines packaging producers as the persons who, in the course of their economic activity, put packaging for the first time on the market in Malta. By this definition, Malta has therefore assigned producer responsibility for packaging to local manufacturers and importers.

European Union legislation also obliges Member States to shift the financial burden entailed in managing waste from taxpayers to producers, through producer responsibility. Directive 2008/98/EC on Waste states that: “in accordance with the polluter pays principle, the costs of waste management shall be borne by the original waste producer or by the current or previous waste holders. Member States may decide that the costs of waste management are to be borne partly or wholly by the producer of the product from which the waste came and that the distributors of such product may share these costs”.

The same directive obliges Member States to take the

necessary measures needed to ensure that any original waste producer or other holder carries out the treatment of waste himself, or has the treatment handled by a person or company permitted to undertake such treatment.

Producer responsibility implementation as a means to achieve Malta's national packaging waste recycling targets

In 2001, Malta set producer responsibility as one of seven principles for waste management in Malta. Since becoming an EU Member State in 2004, Malta has particularly sought to implement producer responsibility to ensure proper and efficient management of the following waste streams:

- Packaging Waste, (PW)
- Waste from Electrical and Electronic Equipment, (WEEE)
- Waste Batteries and Accumulators, (WBA), and
- End of Life Vehicles (ELVs)

Malta's producer responsibility efforts have been underway longest for packaging waste while producer responsibility implementation for the other waste streams is at a less advanced stage.

On EU accession, Malta became obliged to achieve the packaging waste recycling targets required by EU legislation. For every year, the EU sets two recycling targets: one for total recycling and an other for material recycling.

Total recycling comprises three main types of waste recycling, namely:

- Organic recycling – commonly known as composting.
- Energy recycling – commonly known as incineration with energy recovery.
- Materials recycling – often referred to simply as recycling, as this is the recovery method which actually recycles the material contained in the waste.

Under EU and Maltese legislation, total recycling is referred to as overall recovery. However, since the term recovery may be confusing as at times it is associated with the collection process, in the course of this Report, the term total recycling is used.

Table A lists the annual total recycling and material recycling targets that Malta is required to achieve for packaging waste under EU legislation. Malta's targets for the period between 2004 and 2011 are, by derogation, lower than those set for 'older' EU Member States. However, in 2013, the derogation ends and Malta's targets are the same as those set for 'older' EU Member States.

Producer responsibility implementation for packaging waste was undertaken so that Malta may achieve its national packaging waste recycling targets. This was initiated by issuing the Packaging and Packaging Waste Regulations (Legal Notice 277 of 2006) which sets out packaging producers' responsibility with regard to packaging and packaging waste. These regulations effectively assigned

Table II.1 : National and producer packaging waste recycling targets in Malta

Year	Minimum national total recycling target %	Minimum total recycling target for producer %	Minimum national material recycling target %	Minimum material recycling target for producer %
2004	27	27	21	21
2005	28	28	25	25
2006	34	34	25	29
2007	41	41	25	35
2008	47	47	25	41
2009	50	50	25	45
2010	53	53	48	48
2011	56	56	51	51
2012	58	58	53	53
2013	60	60	55	55

Source: Act of Accession: Malta, Article 24, Annex XI, Section 10, Environment.B2. Directive 2005_20_EC.

producers the same packaging waste recycling targets that Malta has under EU legislation (See Table II.1).

The Packaging and Packaging Waste Regulations (PPWRs) specifies critical producer responsibilities with regard to packaging waste recycling, namely, to:

1. arrange for the recycling of the packaging waste percentage stipulated by law in Annex A of the Regulations;
2. ensure that a specified percentage of the recycling undertaken is material recycled, as required by law in Annex A of the Regulations;
3. recycle the packaging waste in ways that are in accordance with health and environment EU legislation; and
4. submit relevant packaging and packaging waste data to the regulatory authorities as stipulated by law.

EU and Maltese legislation define “packaging” as “*all products made of any materials of any nature used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods, from the producer, to the user or the consumer. Non-returnable items used for the same purposes shall also be considered to constitute packaging.*” In turn, the packaging waste generated annually in Malta is deemed to equal the amount of packaging put on the market in Malta in that same year by each producer.

Producer responsibility as a means to optimise efficient use of Malta’s landfill

The implementation of packaging waste producer responsibility is also a means to optimise efficient use of Malta’s scarce and expensive landfill space. Malta is a small, highly urbanised island with a high population density. Unbuilt land is scarce and most of it cannot be used for landfilling because of its proximity to residential areas or environmentally sensitive areas, such as the ground water table. These physical constraints consequently dictate that waste going to landfill be kept to a minimum.

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