



AUDIT
OFFICE



REPUBLIC
OF CYPRUS

Special Report no. ENV/01/2018 (Revised)

Packaging Waste Management in Cyprus

AUDITED ENTITY:

DEPARTMENT OF ENVIRONMENT

28 March 2018

(Revised on 11 April 2018)

Executive Summary

The Audit Office of the Republic of Cyprus conducted an audit to assess the adequacy and effectiveness of the operations of the Department of Environment (“the Department”) in relation to the management of packaging placed on the market and packaging waste, in accordance with the provisions of the Waste Laws of 2011 to 2016 and the Packaging and Packaging Waste Laws of 2002 to 2017. Considering that the management of packaging waste in Cyprus is mainly carried out by the single collective packaging waste management system operating in the country (“the System”), our audit focused on:

- an assessment of the adequacy and effectiveness of the supervision exercised by the Department in order to verify the compliance of the System with the terms of its Operation Approval and legislative provisions, and
- the evaluation, in terms of legality and economy, of the procedures followed by the System in the years 2006 to 2016 for the conclusion of contracts for the purchase of packaging waste collection and sorting services and for the sale of recyclable materials.

The audit also examined the adequacy and effectiveness of the Department's actions to:

- identify and enforce compliance measures to non-complying economic operators,
- identify the quantities of commercial and industrial packaging waste collected by licensed packaging waste administrators,
- encourage the operation of individual packaging waste management systems and
- strengthen competition in the field of collective packaging waste management services.

The role of Local Authorities in the management of packaging waste, as well as the existing legal framework for the management of packaging and packaging waste, were also examined, with a view to identify any weak points. Due to the wide scope of the audit subject and the time required to complete the audit, the findings concerning the role of Local Authorities in the management of packaging waste and the evaluation of procedures followed by the System for the procurement of packaging waste sorting services and the sale of recyclable materials will be presented in a separate Report.

The most important findings of the audit are summarised below:

1. Operation of the Collective Waste Management System under the terms of the Approval and the provisions of legislation.

(a) General findings.

- The Department of Environment does not carry out regular controls to verify compliance of the System with the conditions of its Approval. The occasional controls performed are incomplete, since compliance with important terms of the Approval is not examined.
- The System applies policies that are inconsistent with the nature of a non-profit organisation, which is required by national legislation.
- The System does not comply with important terms of its Approval, such as the purchase of services and goods following a tendering procedure and the achievement

of recycling targets for glass and wood packaging waste, while compliance with certain other conditions is inadequate.

(b) Waste management by the System.

- Up until March 2016, the System took responsibility on behalf its members, in return for a financial contribution, for the management of packaging materials which, in essence, it did not manage, in violation of the terms of its Approval and the provisions of the relevant Regulations and the EU Directive. These materials were included in the screening residue that ended up in landfills (e.g. tetrapak waste, PS (polystyrene) and PVC (clothes hangers)).
- In the publicity material published by the System, categories of packaging waste the management of which is required under the terms of the System's Approval and the relevant national and EU legislation (transparent wrapping, nylon bags, polystyrene, plastic cups and plates, plastic yogurt/butter packaging, plastic bags etc.), are explicitly excluded.

The Department of Environment is aware of this policy. Our Office sought the opinion of the Attorney General as to whether the System's action to collect fees from producers for services that it does not actually provide is lawful. The Law Office, in its letter dated 27.3.2018, informed us that the above action is unlawful.

- The System's policy of not managing all packaging waste is also encouraged by its current Approval, which does not require the System to manage the total quantity of packaging waste in the entire Cypriot territory, for which it has received fees from the obligated producer-members, but rather the quantities of packaging waste required to meet the minimum annual targets. Our Office requested legal advice from the Attorney General as to whether the above policy of the System is legal. The Legal Service, in its letter dated 27.3.2018, informed us that the above action is unlawful.

(c) Achievement of quantitative recycling and recovery targets for packaging waste by the System.

- It was not possible to verify the actual performance of the System with respect to the overall recycling and recovery targets for packaging waste for the years 2007-2012, since quantities of non-packaging paper waste were included in the calculations. In 2013 and 2014 the System did not achieve the above targets. It should be noted that the reported recycling rate of paper and metal packaging waste that was achieved by the System in the years 2009-2016 and 2016, respectively, exceeded 100% of the quantities declared as being placed on the market. This may be due to including quantities of non-packaging waste and to the fact that obligated producers of the particular waste streams are not registered in the System. Our Office requested legal advice from the Attorney General as to whether the inclusion of non-packaging waste in the System's annual targets and national targets is legitimate. The Legal Service, in its letter dated 27.3.2018, informed us that this methodology is not lawful for the purposes of achieving the targets of the collective system.

It is also reported that, in the years 2014-2016, the System did not achieve the energy recovery target, since it only implemented recycling actions for packaging waste.

- *Glass packaging waste management.* During the years 2007-2009 and 2012-2016, the System did not achieve the recycling target for glass packaging waste. As a result, the System did not fulfil its commitment to its members, that transferred their responsibility to the System for a financial fee. The Department of Environment and the System do

not carry out any control on the correctness of the quantities of glass packaging waste delivered to the Vassilikos Cement Works plant and the subsequent treatment of this waste by the plant. It should be noted that the plant did not process any quantity of glass packaging waste it received from the System for a fee in the years 2011-2014, while in the years 2015 and 2016 it only processed a portion of the received quantity. In the years 2007-2009, the System included quantities of glass in the calculation of the recycling target for glass packaging waste, which, to its own knowledge, were not processed in any way, since the material had been handed over to the then unlicensed Vassilikos Cement Works processing plant.

- *Paper waste management.* Despite the fact that, since 2009, the recycling rate of paper packaging waste achieved by the System exceeds 100% of the quantities declared as being placed on the market, the Department did not carry out controls on the calculation of the targets achieved and did not request the System to provide explanations. In the years 2006-2012, in the calculation of the recycling rate of packaging paper, the System also took into account non-packaging paper, in violation of the terms of its Approval and the legislative provisions. From 2013 onwards, for this calculation, the System takes into account 30% of household and commercial non-packaging paper waste, according to a relevant term included by the Department in its renewed Operation Approval. The Department did not assess the study prepared by the System in 2013, according to which paper waste collected across Cyprus consists of 37% packaging paper and 63% non-packaging paper. Nevertheless, these percentages have been applied since then.
- *Tetrapak packaging waste management.* The System does not carry out satisfactory management of tetrapak waste, despite the fact that it assumes, for a fee, the relevant obligation of its members. There is insufficient data on the management of tetrapak packaging waste in the years 2007-2016, which reinforces the view that the material in question was not managed by the System because of its low commercial value. Until March 2016, when the system began to manage the sorting residue for energy recovery, the material in question most likely ended up in uncontrolled waste disposal areas.
- *Wood packaging waste management.* To date, the System has failed to meet the quantitative target for the recycling of wood packaging waste. It should be noted that during the years 2007, 2008, 2009, 2010 and 2013, the System did not manage any quantity of wood packaging waste in violation of the terms of its Approval, the provisions of the legislation and the commitment it has undertaken on behalf of its members, for a financial charge, to manage the quantities declared in the System.
- *Metal packaging waste management.* Since 2007 the System has exceeded the recycling target for metal packaging waste and in 2016 the quantities of this recycled material exceeded 100% of the quantities of metal packaging waste declared to have been placed on the market. The principal reason the System met this target is the management of steel packaging, which is mainly achieved through the payment of financial incentives to licensed waste managers. The recycling rate of steel packaging from 2009 onwards exceeds 100% of the quantities declared as being placed on the market. This may be due to the declaration, by the System's members, of lower quantities than the actual ones placed on the market, or the fact that not all companies producing steel packaging are registered in the System, contrary to the requirements of the law, or the fact that the quantities purchased by the System from licensed waste

managers for purposes of meeting the recycling targets include non-packaging steel waste.

- *Plastic packaging waste management.* The System does not handle specific plastic materials (PS - polystyrene and PVC - clothes hangers) for strategic reasons, although it assumes its members' responsibility for their management, for a fee. The System wrongly claims to be applying the solidarity principle in using the proceeds of packaging materials which it decides not to manage, to subsidize the management of the remaining packaging waste. It should be noted that the System charges its members with a higher fee for the management of the above materials compared to the fees charged for the management of other packaging waste.
- No correspondence between the Department of Environment and the System was evident, through which the Department makes any recommendations to the System for its performance in meeting its targets.

(d) Procurement procedures applied by the System for the purchase of collection services for paper, PMD and glass packaging waste.

- *General findings.* The renewed Operation Approval of the System for the period 10.6.2013-10.6.2019 provides for the delegation of services to third parties following a bidding process, contrary to previous Approvals. Up to the period our audit was conducted, the Department of Environment had not performed any controls regarding compliance of the System with this term. In the years since 2013, the System has awarded most contracts for the collection of PMD, paper and glass packaging waste without following the appropriate tendering procedure provided for in the renewed Approval. In addition, the System did not in all cases comply with the principles of good administration, equity and transparency in the procedures followed for awarding such contracts. For instance, substantial changes were made to the subject and the terms of the contract following the submission of tenders; technical specifications, terms and cost estimates were not prepared in advance of the tender submissions; and provisions were added, during the contract term or upon its renewal, which significantly altered the original subject of the contract.
- Most of the cost of collecting PMD and paper packaging waste is related to population costs (unit price per inhabitant of the area covered) despite the fact that (i) the transportation cost is not proportional to the size of the population, (ii) the population of an area includes infants and young children or other ages who are unable to participate in a recycling programme and (iii) the recycling programme is voluntary and a percentage of the population chooses not to participate.
- Most contracts include a term for adjusting the contractor's prices on the basis of changes in indicators that are unrelated to the collection of waste e.g. consumer price index.
- The contracts provide for the possibility of extending the project in terms of the time period and/or geographic coverage through negotiations between the System and the contractor, so that after the expiry of each contract a new bidding procedure is not launched.
- The six-month and annual contracts concluded for the collection of PMD, paper and glass packaging waste in the Paphos and Famagusta Districts since 1.7.2013 and in the Larnaca District since 1.1.2014 do not provide for the contractor submitting a

guarantee for the proper execution of the project. As a result, the financial interests of the System are not safeguarded during the above periods.

- Certain contracts were identified, the terms of which do not safeguard the financial interests of the System but result in undue financial burden.
- *Audit of PMD and paper packaging waste weight notes.* Our audit on the weight notes issued by the sorting plant for the quantities of collected PMD and paper packaging waste in the Municipality of Engomi in 2010, revealed cases of weight notes issued manually instead of through the automated system, which contained unauthorised modifications. We also found cases of weight notes of PMD and paper packaging waste collection vehicles, in which the recorded tare weight of the vehicles differed materially from that recorded in the vehicle registration certificate. We expressed the view that these findings raise doubts regarding the correct recording of the tare weight of collection vehicles in the weight notes and the calculation of the collected quantity of packaging waste.
- *Government financial support for the extension of the packaging waste management program in the Paphos, Larnaca and Famagusta Districts.* The Department did not conduct sufficient controls to verify the proper use of government financial support by the System in accordance with the provisions of the Decisions of the Council of Ministers. In particular, in violation of the provisions of the Decisions of the Council of Ministers, the Department approved the financing of the System with regard to activities for raising public awareness in the Nicosia and Limassol Districts and the payment €40.000 to the System without prior submission, by the System, of supporting evidence on how the grant was used.

(e) Revenues of the System.

- *Packaging fees.* Until March 2016, the System charged its members with fees for the management of certain types of packaging which, instead of being recycled, were included in the sorting residue, which ended up in a landfill. No Regulations have been issued by the Council of Ministers to determine the packaging fees, in violation of the relevant legislation, while current fees have not been revised since 2010.
- *Contribution from Local Authorities.* The application, by the System, of a uniform reduction rate on the fees imposed on Local Authorities for the collection of non-packaging paper may indicate the need to adjust these charges. The System does not take adequate measures to collect overdue contributions from Local Authorities. This issue will be analysed in a separate Report to be issued by our Office.
- *Registration fees.* During an examination of a sample of new member registrations for 2014 and 2015, it was not possible to identify letters or declarations for all small businesses, that are subject to lower fees. As a result, there is no evidence on the correctness of the registration fees charged. We also found cases of new members registered in 2014 and 2015, which were not charged with retroactive fees.
- *Revenue from the sale of materials for recycling.* It was not possible to document the reasonableness of the proceeds from the sale of materials for recycling. This issue will be analysed in a separate Report to be issued by our Office.

2. Achievement of quantitative recycling and recovery targets for packaging waste by the State. By 2014, the year for which the latest official data are available, the State had not achieved the quantitative target for the recycling of glass and wood packaging waste. For paper and metal packaging waste, the respective recycling rates are 97%, most likely

due to the consideration of non-packaging waste quantities. The quantities taken into account in determining the performance of the State in relation to the recycling of glass packaging waste for the years 2011-2016 are incorrect, since, during the specified period, the Vassilikos Cement Works plant only processed 18% of the quantities of such material received from the System against payment of the relevant processing fees. The Department of Environment, as the Competent Authority, failed to identify the fact that the processing plant in question received quantities of glass packaging waste at a financial benefit, without processing these quantities appropriately.

3. Actions of the Department of Environment to reinforce competition in the field of collective waste management services. The provision of collective waste management services by a single management body limits the effectiveness of the supervision exercised by the Department and the imposition of severe compliance measures, since any temporary or permanent interruption of its operations will cause serious problems in the recycling of packaging materials and the achievement of recycling targets by the State. To date, the Department has not taken steps to develop and implement a strategy to create incentives and conditions that will enable the involvement of other stakeholders in this field. Furthermore, there was significant delay in the assessment, by the Department, of the application submitted by a company for the operation of a second collective waste management system.

4. Actions of the Department of Environment to identify and enforce compliance to non-complying producers of packaging waste. The Department does not take adequate measures to identify all non-complying producers of packaging waste. Furthermore, the Department does not prepare a control plan, based on a risk analysis, for its inspections to identify non-complying packaging waste producers. The Department did not impose compliance on non-complying packaging waste producers who jointly applied to the Department for an approval of the operation of a collective waste management system and who, in the meantime, do not participate in the collective System nor operate individual recycling systems.

5. Supervision, by the Department of Environment, of licensed commercial/industrial packaging waste management units that cooperate with the System. The controls carried out by the Department to confirm the quantities of commercial/industrial packaging waste managed and exported by the licensed units are incomplete. Licensed units for the management of steel and aluminium packaging waste do not submit data to the Department relating to the precise composition of the waste they handle and export, so the Department cannot ascertain the quantities of packaging waste included in these. Therefore, the performance results of the System and the State with regard to the recycling target for metal packaging waste are inaccurate. It was also found that licensed plastic and paper packaging waste management units submit insufficient data regarding the origin and residue of such waste, to the Department.

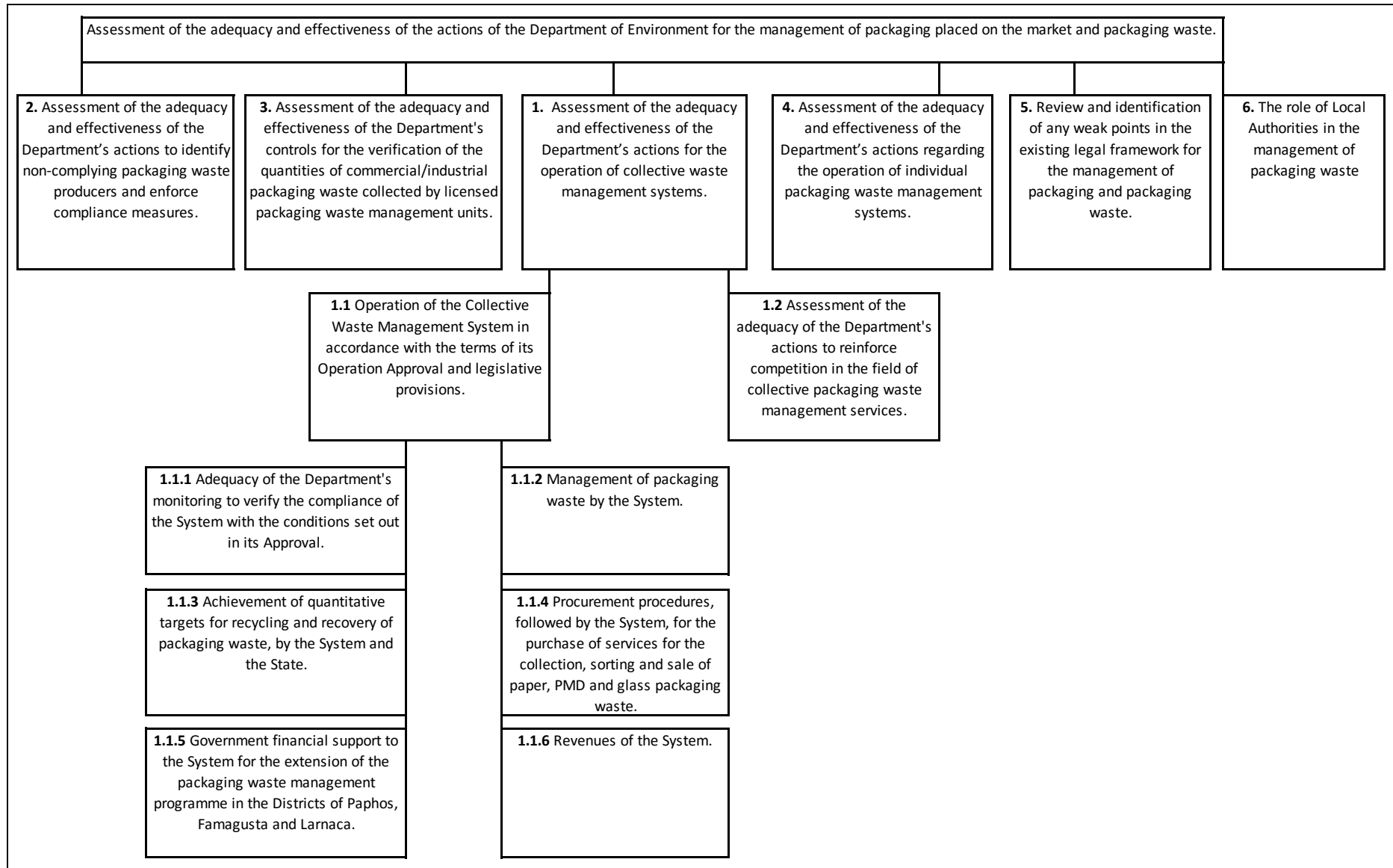
6. Licensing of individual packaging management systems. The Department supervises and performs procedures for issuing and renewing licences for individual packaging management systems with enormous delay.

7. Review of the legal framework for the management of packaging and packaging waste. The existing legal framework does not provide for mandatory participation of citizens in waste sorting and the implementation of programmes to encourage such action. Additionally, we hold the view that the Department should put forward an amendment in the legislation to make it mandatory, inter alia, for producers to manage the hazardous residue contained in certain types of packaging. Furthermore, due

to the large quantity of glass packaging waste produced in eating establishments, we suggested that the Department considers imposing measures for the compulsory participation of such establishments in the collection system of glass packaging waste. The Department should also monitor the implementation of the provisions of Regulatory Administrative Act 340/2017, which entered into force on 15.12.2017, according to which producers of non-packaging paper should, by 15.9.2018, operate an individual non-packaging paper waste management system or participate in a collective system.

The results of our audits, along with our recommendations, were sent to the Department of Environment which was asked to provide its comments and take the necessary corrective measures. The views of the Department were incorporated, where appropriate, in the final report.

APPENDIX: AUDIT QUESTIONS AND CRITERIA



Main audit objective: Assessment of the adequacy and effectiveness of the actions of the Department of Environment for the management of packaging placed on the market and packaging waste.		
	Audit questions and sub-questions	Audit criteria / What is expected
1.	Are the Department's actions for the operation of collective waste management systems adequate and effective?	The Department provides incentives and has adequate procedures in place to encourage the efficient operation of collective packaging waste management systems, with a view to reinforcing competition.
1.1	Does the Collective Waste Management System operate under the terms of its Operation Approval and legislative provisions?	The System operates according to the terms of its Operation Approval and the provisions of the Packaging and Packaging Waste Law of 2002 and the relevant Regulations.
1.1.1	Does the Department exercise adequate monitoring to verify the compliance of the System with the conditions set out in its Approval?	The Department carries out adequate, systematic and effective controls to verify the compliance of the System with the conditions for its Approval and enforces compliance measures where appropriate. The control findings are documented and supported by appropriate evidence.
1.1.2	Is packaging waste appropriately managed by the System?	The System fulfills its obligations towards its obligated producer members and manages packaging waste, in accordance with the provisions of legislation and its Operation Approval.
1.1.3	Does the System (and the State) achieve quantitative targets for recycling and recovery of packaging waste?	The System achieves the overall quantitative targets for recycling and recovery of packaging waste and the corresponding targets for each category of packaging waste (glass, paper, PMD and wood) specified in its Operation Approval.
1.1.4	Does the System follow appropriate procurement procedures for the purchase of services for the collection, sorting and sale of paper, PMD and glass packaging waste?	The procedures implemented by the System for the procurement of services for the collection, sorting and sale of paper, PMD and glass packaging waste are carried out under the terms of its Operation Approval and the principles of good administration and equity. The System enters into agreements that safeguard its financial interests and does

Main audit objective: Assessment of the adequacy and effectiveness of the actions of the Department of Environment for the management of packaging placed on the market and packaging waste.		
	Audit questions and sub-questions	Audit criteria / What is expected
		not accept the inclusion of conditions that result in undue financial burden, which would be passed through the packaging fees to its producer-members and consumers and through the charges of collection programs to Local Authorities and citizens.
1.1.5	Is the financial support to the System for the extension of the packaging waste management programme in the Districts of Paphos, Famagusta and Larnaca appropriately granted by the government?	The Department granted approval for the gradual use of government funding by the System, after obtaining assurance that the System was acting on the basis of the Decisions by the Council of Ministers.
1.1.6	Does the System implement appropriate revenue policies?	Packing fees, registration fees and charges to local authorities are reasonable and their charge is lawful and equitable. Revenue from the sale of recyclable materials is reasonable.
1.2	Are the Department's actions to reinforce competition in the field of collective packaging waste management services adequate?	The Department provides appropriate incentives for the operation of collective systems, implements timely and efficient procedures in examining relevant applications and creates conditions that will enable the involvement of other stakeholders in this field.
2	Are the Department's actions to identify non-complying packaging waste producers and enforce compliance measures adequate and effective?	The Department implements adequate and effective measures to identify non-complying packaging waste producers and enforces compliance, where appropriate, in accordance with legislative provisions.
3	Does the Department conduct adequate and effective controls for the verification of the quantities of commercial/industrial packaging waste collected by licensed packaging waste management units?	The Department performs adequate and effective controls to verify the quantities of commercial and industrial packaging collected by licensed waste management units, which are taken into account in calculating the recycling rates achieved by the System and the State.

Main audit objective: Assessment of the adequacy and effectiveness of the actions of the Department of Environment for the management of packaging placed on the market and packaging waste.		
	Audit questions and sub-questions	Audit criteria / What is expected
4	Are the Department's actions regarding the operation of individual packaging waste management systems adequate and effective?	The Department applies simplified and effective procedures to encourage the operation of individual packaging waste management systems and exercises sufficient control over their operation.
5	Are there any weak points in the existing legal framework for the management of packaging and packaging waste?	The existing legal framework is adequate and provides for the proper management of all categories of packaging waste and the effective identification of non-complying waste producers.
6	What is the role of local authorities in the management of packaging waste?	