



ERA'S RESPONSES TO THE OFFICE OF THE OMBUDSMAN'S  
REVIEW OF THE STATE OF THE ENVIRONMENT REPORT

Ref: CEP/19

8 October 2018





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	<b>Comments by the Office of the Ombudsman 28 September 2018</b>	<b>ERA Responses 8 October 2018</b>
	The purpose of this part of the review is to make pertinent observations and request for additional information that is needed in order for the Commissioner for the Environment and Planning to prepare his Opinion. The observations that are being made are only the ones that are deemed to be most important in the context of the relevance of the SoER and its usefulness as a tool for prioritising action towards improving the state of the environment that we live in, now.	Noted.
	<b>Introduction and general observations</b>	
1.	The SoER 2018 covers the status of the environment from 2009 till 2015. However, as stated in the report itself, there are instances of data from 2008 or earlier, and there are	Generally, the SoER covered data from 2009 to 2015. In such reports a cut-off date needs to be established in order to put the entire report into a context. It was also deemed important to retain some flexibility in the range of years that were reported on, depending on the topic and data at hand.



	<p>some observations made for developments that occurred post-2015. While it is welcome that the SoER is as factual and timely as possible, this moving baseline for time series is rather confusing. In most cases, since the data is from as much as three years earlier, it is very outdated, especially in view of the rapid population and socio-economic changes that the country is presently experiencing. For the sake of consistency, but more essentially, in order to permit the prioritisation of trends for relevant and timely action by policy makers and the public, where data is available, either directly via ERA’s databases and monitoring programmes, or through other sources, which goes beyond the 2015 cut-off date, this should have been presented.</p>	<p>It is appreciated that the report presents data of a number of years ago, however one should focus on the trend of the indicator and not only on the data of the more recent years. Where it was essential to do so, such as where major changes have occurred and data for this was easily available, developments that have taken place outside the reporting period have been mentioned. Moreover, it is the norm amongst the member countries of the European Environment Agency (EEA) to publish their SoER within 2 years from the data gathering cut-off date. This is necessary to allow for adequate data analysis and interpretation. In order to circumvent this, it is common practice for countries to publish regular updates on the SoER’s indicators to provide timely information between the SoER intervals. ERA intends to follow this good practice.</p>
2.	<p>On the other hand, in instances where the SoER refers to a plan or programme that has been established within the reporting period, i.e. between 2009 and 2015, the report should also provide details of the state of implementation of that action plan, on the basis of specific milestones</p>	<p>Data to assess the status of a particular topic is highly dependent on the outcomes of evaluation of the state of implementation of the policies, plans or programmes related to that topic. Thus, while this information may not have been mentioned in the introduction, it was directly or indirectly included in the full SoER (which details information in relation to each chapter) where it was possible or available.</p>



	and targets that should have been already achieved.	
3.	The same observation applies to major national developments that have an impact on the state of the environment that have either started to be implemented in the recent past, or are in the pipeline. By omitting these developments, the SoER misses the opportunity to stimulate the necessary awareness and to elicit an early response from its audience.	Agreed. Where major changes have occurred and data for this was easily available, it was indeed included in the report, such as the considerable improvement in the designation of Marine Protected Areas (MPAs) post 2015.
	<b>Economy and the environment</b>	
1.	The Summary Report provides a comprehensive analysis of the key challenges that the Maltese economy is currently facing in regard to the environment though it lacks some focus on the medium- and long-term challenges. The economic benefits and costs of the environmental strategy needs to be presented in a clear format with a view to informing the public of the anticipated costs of 'business as usual' against the potential benefits of 'doing something'. It would have been relevant to provide estimates (wherever possible) of the potential	While acknowledging that information on the potential economic benefits and expected economic costs is very limited in Malta, it is important to recall that the SoER summary report is not intended to replace a strategy, but is intended to give a snapshot of the state. Nonetheless, it is agreed that this is an area that should be looked into in more depth.



	economic benefits and expected economic costs of environmental challenges.	
2.	Timeliness and accuracy are fundamental prerequisites when it comes to data analysis. Failings in either of these dimensions can compromise the usefulness of the data provided. It is necessary therefore for the Report to have both timeliness and accuracy. Timing is everything and when you're capturing, interpreting and then acting on real-time data timeliness can be fundamental. At times the information is not the most up to date, and given so many developments taking place as well as because of the extraordinary rate of economic growth, it is necessary to refer to the latest data, evidence and information.	<p>Generally, the SoER covered data from 2009 to 2015. In such reports a cut-off date needs to be established in order to put the entire report into a context. It was also deemed important to retain some flexibility in the range of years that were reported on, depending on the topic and data at hand.</p> <p>It is appreciated that the report presents data of a number of years ago, however one should focus on the trend of the indicator and not only on the data of the more recent years. Where it was essential to do so, such as where major changes have occurred and data for this was easily available, developments that have taken place outside the reporting period have been mentioned. Moreover, it is the norm amongst the member countries of the European Environment Agency (EEA) to publish their SoER within 2 years from the data gathering cut-off date. This is necessary to allow for adequate data analysis and interpretation. In order to circumvent this, it is common practice for countries to publish regular updates on the SoER's indicators to provide timely information between the SoER intervals. ERA intends to follow this good practice.</p>
	<b>Strategies and plans</b>	
1.	The SoER refers to the 'National Strategy for the Environment' as the instrument that shall address cross-cutting issues at national level and serve as a means to integrate the environmental agenda at a horizontal level. Can further details	<p>The National Strategy for the Environment (NSE), as required by Articles 45 to 47 of the Environment Protection Act (CAP. 549), will be a national governance document which provides strategic direction on environmental matters. Later this year, ERA shall commence consultations on the NSE's vision with a view to continue with its development over 2019.</p> <p>The National Environment Policy (NEP) covers till 2020 and therefore the NSE will follow on its content and status where relevant. Other strategic documents, such as SPED and NSSD, are of</p>



	on the upcoming Strategy be provided? When is it going to be published? How does it relate to the National Environment Policy and other important national strategies, such as the Spatial Plan for the Environment and Development (SPED) and the National Strategy for Sustainable Development?	relevance to Malta’s environment and will therefore be taken into consideration when developing the NSE for synergy, streamlining, continuity and resolution of conflicts as necessary.
2.	There is a reference to the Local Plans and the fact that they are under revision since July 2013. At what point is this process? When is it to be concluded? How will the Local Plans fit within the overall hierarchy of policies in relation to planning and the environment?	The Land and Coast Chapter (Chapter 4) of the SOER establishes that in July 2013, the then Malta Environment and Planning Authority (MEPA) started the comprehensive revision of the approved Local Plans. During the period between July and September 2013, the Forward Planning Division (FPD) within MEPA undertook a public consultation exercise aimed at gathering information and suggestions that would guide the revision, however it did not establish when the process would be concluded. The last stage of this public consultation period was held in 2015. The Local Plans forms part of the set of subsidiary plans (including Subject Plans and Development Briefs) that support the SPED.
3.	Who is driving the Strategy and Action Plan ‘Greening Our Economy – Achieving Sustainable Development’ and how does this plan fit within the overall hierarchy of policies in relation to the environment?	This Plan is spearheaded by MESDC as indicated in the Policy Responses Chapter (Chapter 9) of the SoER. Further information on the Plan is available at: <a href="https://www.gov.mt/en/Government/Press%20Releases/Documents/pr152171a.pdf">https://www.gov.mt/en/Government/Press%20Releases/Documents/pr152171a.pdf</a> This Plan is a key instrument to drive Malta’s economy to become greener.
	<b>Driving forces</b>	
1.	Is it possible to update the information in the chapter on driving forces to reflect the latest available data? For example, population	Generally, this SoER covered data from 2009 to 2015. In such reports a cut-off date needs to be established in order to put the entire report into a context. The next SoER will provide insight to latest data, proving the framework for discussion of that SoER and the impacts it presents.



	density, share of construction sector in gross value added and the number of approved dwellings by Planning Authority, etc.	
2.	What is meant by virgin land? This is referred to in the context of permits that have been granted.	Virgin land is equivalent to greenfield land, and is defined as land which has had no previous development commitments, and can therefore be classified as ‘new’ fresh land. Greenfield land can be located both within and outside the Development Zone.
3.	Does the 1.8% of total employment in agriculture and fisheries refer to full time employment?	The NSO Labour Force Survey is an assessment of the total employed persons.
4.	What are the ‘Figures that suggest that related negative environmental impacts may also be declining overall’?	It is not clear whether this comment is referring to the statement “This suggests that related negative environmental impacts may also be declining overall, particularly when this is seen with the policy regime and good farming practices being encouraged in the sector, and the initiation of establishing animal waste management strategic direction.” of Chapter 1 pg. 23. This statement is concluding the preceding discussion, which notes a declining trend in agriculture as an economic activity, hence possibly indicating a resultant decline in agricultural-induced negative environmental impacts. This is stated with a proviso that it does not exclude the rise of other impacts because of land abandonment, or alternative forms of development, with other environmental impacts, which are becoming increasingly attractive. This text is hence a discussion of the preceding figures.
5.	Is land abandonment being considered as a negative or a positive environmental effect in the context of agricultural land?	Land abandonment in the context of agricultural land is considered as bearing negative effects if this leads to the long-term loss of valuable agricultural potential of that land because of soil erosion, and subsequent land degradation (page 23 of Chapter 1: Driving Forces & page 9 of Chapter 4: Land and Coast refer).
6.	What is the conclusion from the statements on use of vehicles by households, elderly, etc.?	The information and data related to transport suggests that continued focus on private-vehicle infrastructure provision, to the detriment of other modes of transport (including walking, public transport and cycling) has negative distributional effects. There are twice as many elderly persons



		who don't own a car in comparison with the entire population, thereby increasing the need to make public transport alternatives a reliable and attractive alternative to private car use not only to address the environmental impact of private vehicle use, but also to address the social aspect. (page 24 of Chapter 1: Driving Forces & section 7.4.1 of Chapter 7: Environmental Health refer).
	<b>Biodiversity</b>	
1.	How many research, innovation and outreach projects have been carried out to promote and mainstream biodiversity and its conservation through direct action by the general public, businesses and other stakeholders in agricultural, and urban and industrial areas? Has access to these measures changed during the identified period? Which species, habitats and/or ecosystems have been targeted by such measures?	In the period covered by the report, MEPA has engaged in various research projects and has been innovative; exploring various platforms of outreach to fulfill its targets. This information is available under Chapter 8: Biodiversity, section 8.8 entitled 'Research and Outreach':
2.	The report creates awareness of the major ongoing initiatives in areas related to biodiversity and its conservation, and the state of biodiversity. One of the weak points of the report is related to the engagement and of stakeholders, and in particular its potential to motivate action by the general public and civic society, businesses and organisations, for biodiversity conservation. How can these	As indicated in section '8.6 Designation and Management of Protected Areas' of the SOER, <i>"the involvement of stakeholders (ranging from conservation experts to landowners; residents; businesses; local councils; community; and environmental groups, etc.) in the management planning process was necessary to ensure that the management plans are appropriate to each site and can be successfully implemented."</i> A number of stakeholder and public consultations were carried out to ensure their engagement in the drafting of the conservation measures and eventually consensus was reached for all the 22 Management Plans and 8 Conservation Orders. In this context it is worth mentioning that the EAFRD project, of which the mentioned public and stakeholder consultations were part, was awarded the CIEEM Best Practice Award for Stakeholder Engagement 2016.  Furthermore, under the same section of the report, it is stated that <i>"management agreements are in place for 5 sites... These agreements with Non-Government Organizations (NGOs) tackle a number of</i>



<p>contribute to biodiversity conservation? How many have benefitted from nationally or EU-funded grants to implement such actions?</p>	<p><i>management measures listed in the Natura 2000 management plans specific to the particular sites. Typically, these include actions regarding the control and removal of alien species, restoration of habitats, efforts to increase the population of endemic species, providing adequate habitats for migratory birds including breeding species, and habitat restoration mostly through the planting of trees and shrubs is a common activity.”</i> It might be important to note that these management agreements are associated with national funds bound with the implementation of the management measures. Hence one can consider this as both an engagement with NGOs to motivate biodiversity conservation whilst assisting them financially with national funds.</p> <p>Besides the mentioned national funds allocated to NGOs in conjunction with management agreements, the report also mentions the various EU LIFE funded project under various sections namely: 8.4 ‘Malta’s Biodiversity Policy Framework’; 8.6 ‘Designation and Management of Protected Areas’; and 8.8 ‘Research and Outreach’. Such funds assisted Birdlife Malta, and the, at the time Malta Environment &amp; Planning Authority (MEPA) and Ministry for Tourism, Culture and the Environment (MTCE). However, LIFE is not the only EU funding which was tapped during the period under review. Funds from the European Agricultural Fund for Rural Development (EAFRD) are also mentioned with respect to the project entitled "Natura 2000 Management Planning for Malta and Gozo" particularly under section 8.6 ‘Designation and Management of Protected Areas’ of the report.</p> <p>Biodiversity related awareness raising activities are also referred to in more detail in Chapter 9: Policy Responses.</p> <p>As to business, ERA and its predecessor worked with private businesses and has also developed a relationship with various private companies, some of which were also invited to communicate with the EU Commission during meetings in Malta to showcase the interactions of the business sector on biodiversity, and also included presentations focusing on uses of biodiversity, such as promotion of its use as food.</p> <p>When it comes to public engagement, the report mentions various instances where the public sector was involved to participate in various awareness and educational activities aimed at increasing the knowledge on local biodiversity and the need to safeguard it, invasive alien species, protected species and habitats as well as the designation of protected sites to protect them. Moreover, the Authority will be launching the SOER in different fora, including a national conference to capture the opinion of the public on the work carried out in the period under review.</p>
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3.	Why is the status of designation of protected areas being reported only up to 2011?	The status of designation of land-based protected sites has remained constant since 2011.
<b>Marine and fresh waters</b>		
1.	There is significantly less emphasis on the ‘improving the status of marine and fresh waters’ in the Summary Report – this section consists of a single paragraph, and moreover, the focus here is on the implementation of the framework directives and the common policies, and, with the exception of the development of the knowledge base, there is no direct reference to the actual measures that will aid the improvement.	Section 5.5 of the Marine and Fresh Waters Chapter (Chapter 5) discusses the paragraph of the Summary report at greater length. The Summary Report will include a reference to this section for further information.
2.	The current sub-headings used in the Summary Report – Pressures, Status, and Improving the status of marine and fresh water – are not sufficient to divide the attention on the various topics being discussed, and ideally more sub-headings are introduced, especially under the section ‘Status’ where the discussion moves from groundwater to fish stocks to inland surface waters to bathing waters, etc.	Noted, amendments will be undertaken as appropriate.



3.	The reason why fish stocks are being included under the chapter for waters rather than biodiversity is not clearly understood. One would expect a discussion on fish stocks and sustainable fisheries under biodiversity and a mention of the impact of fisheries on water quality in this chapter.	It is appreciated that the chapters overlap in their content. The state of fish stocks is central to the aims of the Marine Strategy Framework Directive, as it seeks to protect the integrity of the marine environment as a whole, and hence was deemed more appropriate to be discussed in this Chapter.
4.	Table 5.1 contains some discrepancies in the way the data is presented, for example, the data under the headings 'pollutant type' and 'dates pollutant was traced and status' not always corresponds to the title. The 'geography of the pollutant' is in most cases limited to the source rather than indicating the source and the spatial pathways of the pollutant, and if so, should be re-titled accordingly.	Column headings will be amended to read: Nature of the pollutant; Sources of the pollutant; Occurrence of the pollutant.
5.	Some statements may leave room for interpretation, in particular the following:	Comments below referred.
	a. Whether the low water use per capita is a result of a high water use efficiency or a low availability of the resource;	Section 5.5 of Chapter 5: Marine and Freshwaters refers to management measures adopted to achieve good water status, by providing improved water use efficiency.



	b. Why there is a reference to rainwater and even treated wastewater in the context of the fact that water resources in Malta are ‘strained’;	The sentence is referring to all sources of water in Malta, highlighting that despite efforts to diversify water sources, water resources in Malta are still strained.
	c. Why is it that the agricultural sector (so our crops and livestock) consumes nearly as much freshwater as all of Malta’s population put together, and whether the evidence behind this is strong enough to support this statement and the need for action.	The national water demand information reported in the SOER was extracted from the 2 <sup>nd</sup> Water Catchment Management Plan. This report is quoted in the SoER, and it establishes that given the absence of historical direct water consumption data for the agricultural sector, its water demand was estimated using FAO’s CROPWAT model which takes into account the yearly climate (on a 10-day time-step) and the land-used for agricultural purposes. The increase in demand indicated by this model could thus reflect the increasing trend in irrigated land-area as reported by the National Statistics Office.
6.	The link between the statement on chemical pressures on coastal waters and the way these chemicals are identified on the basis of importation data and categorized into groups and then substantiated with relevant information in Table 5.1 is not clear.	The pool of different chemicals is very vast. This statement therefore justifies how the report identified the chemicals discussed in the Chapter.
7.	The reason for the extension of Malta’s coastline is not clearly understood (in the background chapter some further information about the construction of ports and forts is given). Moreover, it is not clear what the percentages 20.78% and 20.89% refer to. Also, it is not understood why for this particular	While the reason for the extension of Malta’s coastline may not be entirely evident in the Summary report, it is explained in further detail in the background chapter (Chapter 5: Fresh and Marine Waters). Clarifications will be added in the summary report. The percentages are referring to the percentage of extended coastline, of the total coastline. These estimates are calculated off aerial photography, and hence their calculation may vary slightly depending on external factors such as the resolution of the imagery being used. In this regard, reference is being made to the 1994-2004 period since this comparison allows for an understanding that change in the extended coastline is minimal, and may pertain to calculation differences.



	topic there is a reference to changes that took place in a previous period (1994 –2004). While this serves to put the current information in context, ideally, for the sake of consistency, it is either done for all topics, or for none at all.	
	<b>Resources and waste</b>	
1.	What is meant by the statement ‘This is encouraging as in 2014, the total waste generated in the European Union by all economic activities and households, was the highest amount recorded during the period 2004-2014.’?	The author is noting a positive declining trend in waste generation in Malta for 2015, when compared to 2007. This is encouraging because the trend is opposite to the EU waste generation arising for 2014, whereby the highest trend was recorded for that decade (2004-2014).
2.	What is the reason behind the decline in total waste (and in C&D waste in particular) within the review period? How has this trend changed recently? Is it valid and pertinent to update this information to reflect current changes that could better underpin policy in this area?	This decline is consonant with the economic uncertainty that prevailed during and preceding that period.
3.	Can more information be presented on Commercial and Industrial waste?	It is not clear what type of information is being requested.
4.	Is the Circular Economy Action Plan referred to in this Chapter linked to	The Circular Economy Action Plan is an EU plan. The Greening the Economy Plan is a national plan stemming from EU initiatives towards a Circular Economy.



	the Greening the Economy Plan, is it a national or an EU plan?	
5.	Which types of wastes generated by commercial and industrial enterprises could be targeted in incentives for better efficiency and minimisation of waste?	<p>Currently, there are companies that are already taking the necessary actions when dealing with waste generated by their activities. Such companies, implement quality management systems and environmental management systems according to EU and International standards, and are committed to minimise waste generation and ensure that their waste is managed in an environmental sound measure, by organizing their own waste collection systems from place of generation to the final treatment facility through the services of waste brokers.</p> <p>On the other hand, certain smaller commercial entities are still making use of the waste collection services provided by local councils, thus shifting the burden of management of waste on the tax payer. In view of this, this fraction of C&amp;I waste collected together with household waste through services provided by Local Councils needs to be addressed, mainly because, the nature of such commercial and industrial waste can prove to be high in recyclables.</p> <p>Local commercial and industrial enterprises will need to be assisted in order to find ways to reduce their waste, and to maximize the resource efficiency of the material they use. These may include, amongst others, the simplification of authorization procedures for end of waste status as well as economic instruments that further promote R&amp;I as well as similar instruments that enable resultant products to be distinguishable as well as competitive within the market.</p>
6.	What do we know about the 'character' of hazardous waste?	<p>Section 6.2.4 of Chapter 6: Resources on Waste, on hazardous waste, identifies the main hazardous waste which are exported from Malta. Taking into consideration the very limited amount of waste which is treated locally, particularly hazardous waste, the same list would apply.</p> <p>Having said so, from data reported to the Environment and Resources Authority, the main 5 types of hazardous waste which are generated locally would be:</p> <ul style="list-style-type: none"> <li>- Waste oils;</li> <li>- WEEE;</li> <li>- Lead acid batteries;</li> <li>- Waste solvents; and</li> <li>- Waste from gas cleaning and fly ash.</li> </ul>
7.	How does the rate of separate collection of WEEE from private	Figure 6.16 of Chapter 6: Resources and Waste refers.



	households compare to that of the EU?	Separate collection of WEEE from private households in 2015 varied considerable across the EU Member States, ranging from a collection rate of 1.6 kg per inhabitant to 14.7 kg per inhabitant. In 2015, Malta achieved a collection rate of 3.8 kg per inhabitant.
8.	Is it possible to explain better the statements about resource productivity and the decoupling of the economic growth and the environment?	Resource intensity measures the resources (e.g. materials, energy and water) needed to provide of a unit of a good or service. Inversely, resource productivity measures the output (expressed either as units produced or as economic value) per unit of resource input. Technical improvements (decreasing the volume of material used), material substitution, shifts of a country’s economy from primary and secondary to tertiary, changes in a country’s demand for physical infrastructural development, and regulations targeting resource use efficiency, affect a country’s resource use. A drive towards dematerialisation and other efficiency-led strategies, reduces the impacts on the environment, without largely affecting economic growth (section 1.5 of Chapter 1: Driving Forces and section 6.4.2 of Chapter 6: Resources and Waste refer).
9.	Is it possible to include information about recent developments that impact the state of affairs in the waste sector, in particular with reference to the incinerator and the generation of massive amounts of inert waste from development projects that have either been approved or are in the pipeline?	<p>Reference is made to figure 6.20 of Chapter 6: Resources and Waste. It provides a comparison of mineral extraction quantities by year and C&amp;D waste produced.</p> <p>The development of a WtE Plant is one of the identified strategic items, in line with the national Waste Management Plan, whereby currently Malta is investing in the construction of such a plant to be operated in conjunction with other waste management operations within the local scenario. The main aims of such a plant would be those of reducing dependence on landfilling as a final disposal option, as well as increasing emphasis on materials recovery and recycling.</p> <p>With regards to construction and demolition waste, current situation indicates that in the coming years the volume of authorised void space might not meet the demand for the backfilling of C&amp;D waste. In view of this, a national strategy for construction and demolition waste is currently being developed. This strategy aims to identify options for the management of waste arising from construction and demolition activities, by primarily addressing the current issues within the sector as well as highlight the possible short term and long-term measures to be adopted, with a view to shifting the treatment of such waste from backfilling to the re-use and recycling.</p>
	<b>Land and coast</b>	



1.	Why is the land cover profile of 2006 presented, can a more recent profile be given?	This data is based on the EU Corine land cover surveys which were carried out in 2006 and 2012. The methodology used is dictated by the EEA, and the resolution used is not sensitive enough for Malta's size. The 2006 and 2012 surveys have hence not picked on any significant land cover changes ( <a href="https://www.eea.europa.eu/themes/landuse/land-cover-country-fact-sheets/mt-malta-landcover-2012.pdf/view">https://www.eea.europa.eu/themes/landuse/land-cover-country-fact-sheets/mt-malta-landcover-2012.pdf/view</a> ). Reference to the 2012 surveys will instead be made.
2.	What is meant by the statement that 'no significant changes to land cover were noted throughout the review period'?	Above comment refers.
3.	The fact that the information in this chapter stops is up until 2011 is problematic.	The data in this Chapter includes up to 2015. The data that stops at 2011 is related to the total dwelling stock data, which is collected through the NSO National Census of Population and Housing 2011, published in 2014.
4.	What type of information/study is needed to address the issue of lack of data on the stock of vacant dwellings vis-à-vis their value and availability on the market?	Amongst others, the systematic characterization and geographical referencing of the vacant dwelling stock, its state of repair, ownership status and the setting up of a maximum allowance vacancy rate would be necessary. This should facilitate the improved management of the existing building stock by introducing area policies, economic incentives or disincentives for keeping a vacant dwelling, hence aiming to limit the take up of virgin land for new development, if these can be located within the development zone.
5.	(This question relates to previous observations on the subject of 'virgin' land). Does the 40% figure for the number of applications on virgin land in figure 7.1 of the summary report include undeveloped land within development zones?	Virgin land is equivalent to greenfield land, and is defined as land which has had no previous development commitments, and can therefore be classified as 'new' fresh land. Greenfield land can be located both within and outside the Development Zone.
6.	Why is soil erosion being singled out and discussed in such detail when other very important issues that	Chapter 4: Land & Coast sets out to provide a snapshot of the factors that characterize the land and coast mosaic of the Maltese Islands, hence briefly discussing the many influencing aspects; including related threats to agriculture including soil erosion. Direct reference is made to the RDP aims and



	afflict agricultural land and the agro-environmental resource base are not even mentioned?	the National Agricultural Policy for the Maltese Islands, which specifically seek to address the other important issues shaping the agricultural industry (section 2.4 of the Summary Report and section 4.2 of Chapter 4 refer).
7.	Is the estimate of 19.3% of soil loss based on scientific evidence? What are the margins of error of these estimates?	It is clarified that the SoER summary report establishes that “The annual soil loss estimate indicates that 19.3 % of Malta is at risk of moderate to severe soil erosion.” This information is extracted from the following papers, referred to in Chapter 4: Land and Coast: Sultana, D. 2015. Numerical Modelling of Soil Erosion Susceptibility in the Maltese Islands using Geographic Information Systems and the Revised Universal Soil Loss Equation (RUSLE). <a href="#">Xjenza Online</a> (3) pp. 41-50. Sultana, D. 2016. Numerical Modelling and Economics of Agricultural Land Degradation in the Maltese Islands. <a href="#">Xjenza Online</a> (3) pp. 22-34.
8.	Is the very alarming cost to replace eroded soil of 65% of yearly revenue from UAA based on any evidence?	References provided in above reply refer.
9.	What do the percentages in Table 7.3 (there are two columns with the heading ‘Percentage’) refer to? Could this table better be represented in a pie chart or similar? Why is the built floor space missing in the case of the two environmental leisure projects?	Table 7.3 presents total approved floorspaces for non-dwelling use, outside the development zone (ODZ). The table separates the leisure and environmental leisure floorspaces (first 2 rows and columns of the table) from other non-dwelling development sectors ODZ (rows 3-11 and columns 3 and 4). This allows for the presentation of floorspace and representative percentages for unroofed floorspace ODZ, and roofed floorspace ODZ. These are distinguished from each other since the actual footprint of the development may differ since roofed floorspace may imply more than 1 floor.
10.	For the public, what is the difference between conversion and redevelopment? Why is redevelopment favoured over conversion? Is there a difference between the two in terms of environmental impact?	The conversion of an existing property consists of the upgrading of the existing building structure, without its total demolition. Redevelopment requires the total demolition of a built structure, and site excavation, in preparation of a new development. Environmental impacts arising out of redevelopment and/or conversions are dependent on the method that these works are undertaken.



11.	Is it possible to provide more recent and up-to-date information on the developments along the coast?	Generally, the SoER covered data from 2009 to 2015. In such reports a cut-off date needs to be established in order to put the entire report into a context.
<b>Ambient air</b>		
1.	Why is the list of pollutants in Table 8.1 not all covered by air monitoring? If this is because the legislation does not require the monitoring of these pollutants, what is the purpose of Table 8.1?	The source of key regulated air pollutants requiring monitoring are listed in Table 8.1. ERA monitors all pollutants listed in this table.
2.	What is BTEX (for the public)? And why is benzene, toluene, ethylbenzene and xylene monitored rather than simply benzene and BaP, as in the list of pollutants?	The definition is included in the list of acronyms, however it will also be inserted in the text of the summary report. The list of ambient pollutants monitored is determined by the relevant EU legislation in the field.
3.	Do we know whether the level of benzene in air has increased up from 1.5 µg/m <sup>3</sup> beyond 2015?	Generally, the SoER covered data from 2009 to 2015. In such reports a cut-off date needs to be established in order to put the entire report into a context. Notwithstanding this, we can confirm that annual average in 2016 (1.3 µg/m <sup>3</sup> ) and 2017 (1.2 µg/m <sup>3</sup> ) have not exceeded 1.5µg/m <sup>3</sup> . Ambient Air quality data is available on our website ( <a href="https://era.org.mt/en/Pages/Data-from-Air-Monitoring-Stations.aspx">https://era.org.mt/en/Pages/Data-from-Air-Monitoring-Stations.aspx</a> ).
4.	Are there any known factors leading to the high exceedances at Gharb station?	Research shows that Ground Level Ozone is a transboundary pollutant, generated offshore and is found in highest quantities in Malta’s lowest traffic zones such as rural areas in Gozo. This is because it takes part in the oxidation reaction of nitrogen monoxide (NO) to nitrogen dioxide (NO <sub>2</sub> ). Thereby, in areas where NO is present in high concentrations, such as in traffic zones, Ground Level Ozone tends to decrease. This process explains why ozone levels tend to be higher in rural areas with less traffic such as Gharb. This information is available in Chapter 2: Ambient Air on page 14.



5.	What is the source of high levels of ozone in rural areas, in view of the connection to high traffic zones?	Previous comment refers.
6.	What is the impact of high levels of ozone on human health?	Irritation of eyes, nose, and throat, breathing problems, and cardiovascular diseases, as per Chapter 2: Ambient Air page 9.
7.	Are there any measures that can be taken to reduce the levels of ozone in air in afflicted areas?	Ozone peaks recorded at the rural site in Gozo were due to air masses (in which the reaction forming ozone had already taken place), reaching Gozo from mainland Europe. Therefore, for ozone to reduce, efforts need to be done from other countries in terms of reducing emissions. The LRTAP Convention’s obligations cover this requirement. Reference is made to section 2.4.2 of Chapter 2: Ambient Air, page 14.
8.	Are the high levels of ozone recorded indicative of a localised issue, or are they representative of a more wide-spread problem? In other words, which parts of Malta and Gozo suffer from exceedances?	As per previous comments.
9.	Is it possible to explain the distinction (and implication on health) between PM10 and PM2.5?	PM 2.5 matter is finer than PM 10, making the former able to enter deeper into the lungs. Normally PM10 effects are mostly related to shorter term exposures, while PM2.5 effects are mostly related to longer term exposures. PM10 affects issues related to respiratory health like asthma, while PM2.5 could lead to lung cancer. These health implications are the basis for the legal limits defined in related legislation.
10.	Can you clarify whether the issue of the black dust was simply one of nuisance, and did not have any additional impacts?	The black dust classifies as a nuisance once it is deposited and is no longer airborne. Additional related impacts cannot be confirmed.
11.	Why is the limit for SO2 related to the protection of vegetation? Does	The limits for SO2 are both for vegetation and for human health. Limits to address the level of SO2 in the air were originally set to counter the negative impact of its form in the more commonly



	<p>this apply only to SO<sub>2</sub>? Is there a limit for human health?</p>	<p>known term of 'acid rain'. Plants are sensitive to SO<sub>2</sub> and they are affected by it both directly and indirectly. The direct effects may be acute or chronic, depending on the duration and intensity of the exposure. There is therefore a limit value for the protection of vegetation. The limits for human health are: 125ug/m<sup>3</sup> daily limit value which can be exceeded not more than 3 times per year, and 350ug/m<sup>3</sup> hourly value which can be exceeded not more than 25 times per year.</p>
12.	<p>What is the status of the 2009 Air Quality Plan? What is the current policy with respect to air quality?</p>	<p>The Air Quality Plan was published in January 2010. Moreover, ERA is currently preparing a National Air Pollution Control Programme which will include a number of measures to reduce air emissions. This plan will be published in 2019.</p>
13.	<p>Is it possible to provide more information on how emissions of airborne pollutants from 'small' industry that does not fall within the scope of the IPPC regime are monitored and regulated?</p>	<p>Emissions of airbourne pollutants from 'small' industry are regulated as follows:</p> <ul style="list-style-type: none"> <li>a) In cases where emission limit values (ELVs) are not set up by legislation, the Authority ensures to include provisions for regular maintenance by competent personnel (such as in certain cases independent warranted engineers). Such records of maintenance are requested from the permitted facilities on a periodic basis. This is applied in view that periodic maintenance of equipment which may be a source of emissions to air is conducive to the proper functioning of equipment.</li> <li>b) In cases where emission limit values for specific processes are established in legislation, environmental permits ensure that provisions are in place so as to ensure that these are complied with. This is done through the requirement for periodic monitoring against established ELVs and the submission of reports to the Authority for review throughout the lifetime of the permit. The requirements mentioned in point (a) above are also included in such permits.</li> </ul>
14.	<p>Is it possible to quantify the decrease in air pollution/improvement in air quality as a result of relevant developments over the reporting period?</p>	<p>Previous and current SoER already cover the resultant decrease in emissions resulting from a number of measures such as the use of cleaner fuels. Additional measures were taken post 2015 such as the closure of MPS, and the use of LNG for power generation, following we are expecting a trend showing the reduction in heavy metals for example. These trends should be reported on in the upcoming SoER.</p>
<p><b>Environmental health</b></p>		



1.	What is the status of the joint national environment and health action plan?	This Action Plan is currently being developed jointly between the Superintendence of Public Health, the Environmental Health Directorate, MESDC and ERA. According to the Ostrava Declaration, all parties are obliged to have a Portfolio of Environment and Health Action Plans by the end of 2018.
2.	What is the reason behind WSC's efforts to reduce boron levels by replacing reverse osmosis membranes? How do the levels of boron compare with thresholds/guide values?	Latest WHO guidelines of 2011 on water intended for human consumption stipulate a Boron guideline level of 2.4mg/L in potable water. In Malta this stands at less than 1.5mg/L in most instances. Nevertheless, constant efforts are required in order to keep boron levels in drinking water at such low levels.
3.	What is the source of water that is being audited in relation to incidence of Legionella?	The relevant chapter establishes that the Environmental Health Directorate audit the risk assessments (not the waters) which are carried out under S.L. 465.03 (by persons of a trade or business, whether for profit or not, and including any healthcare facility and schools). This risk assessment is as identified in the legal guidelines based on the European Working Group for Legionella:[1] Infections (EWGLI) Guidelines for the Investigation, Control and Prevention of Travel Associated Legionnaires' Disease.
4.	Is the environment a significant factor in the very alarming situation whereby 70% of the population does not have a healthy weight?	The relevant chapter establishes a safe environment that encourages personal mobility and physical exercise is important for health and prevents obesity and overweight. The creation of safer roads will encourage more parents walking their children to school; creating safer playgrounds which ideally should be away from traffic-congested areas and creating greener areas in our localities is recommended. However, the prevailing unhealthy weight cannot be solely pertained to the environment.
5.	Is there a risk in promoting walking and running as part of the effort to maintain a healthy weight in light of the potential health hazards from air pollution?	The relevant chapter establishes that a safe environment that encourages personal mobility and physical exercise is important for health. The chapter also establishes that transport strategies should therefore include measures to reduce exposure to air amongst others to increase levels of daily physical activity. Such strategies should aim to discourage the use of cars and heavy goods vehicles in cities; create dedicated urban space for walking, cycling, and public transport; and limit urban sprawl. The report also mentions that the creation of playgrounds should ideally be away from traffic-congested areas, while recommending the creation of greener areas in our localities.



6.	Is there more recent information (beyond 2010) on mortality rates and disability as a result of ambient air pollution?	WHO published the document entitled “Economic cost of the health impact of air pollution in Europe” in 2015. This is the report quoted in the State of the Environment Report as it is the latest report published by the WHO. However, other reports regarding similar matters have also been published by WHO, such a the following report ( <a href="http://apps.who.int/iris/bitstream/handle/10665/250141/9789241511353-eng.pdf?sequence=1">http://apps.who.int/iris/bitstream/handle/10665/250141/9789241511353-eng.pdf?sequence=1</a> ) quotes 2012 data, stating that the death rate by ambient air pollution in Malta was 129 (less than the deaths for 2010, which stood at 228.
7.	What are the results of the radiation inspections?	The activities of the RPB are reported within the OHSA annual reports. The 2017 report is available at: <a href="http://ohsa.org.mt/Portals/0/Docs/Reports/2017%20Annual%20Report%20c.pdf">http://ohsa.org.mt/Portals/0/Docs/Reports/2017%20Annual%20Report%20c.pdf</a> , and provides the total number of inspections on page 25. RPB does not publish results of the radiation inspections.
8.	Can you amplify on the statement that ‘research results collected to date for radio frequency fields establish no scientific evidence that the weak RF signals from base stations and wireless networks cause adverse health effects’?	Kindly refer to the reference linked with this statement that is available in the report, namely - WHO (World Health Organization) 2006. WHO Electromagnetic fields and public health Base stations and wireless technologies, Backgrounder. Available at: <a href="http://www.who.int/peh-emf/publications/facts/fs304/en/">http://www.who.int/peh-emf/publications/facts/fs304/en/</a> (Accessed 20 September 2017).
9.	How do the lead levels in blood in both children and adults compare to other nationals? Are there guide levels?	The report establishes that the average blood lead level in children was lower than 50 µg/l, which is presently considered the threshold for blood lead levels in children, though research indicates that there might be no threshold level below which lead causes no injury to the developing human brain.
10.	What is the reason for the increased incidence of exceedances of pesticide residue levels in consumed products in view of the very tight regulatory controls?	The report does not provide a reason for this state, but noting its significance, it may be promoted as an area for further study.

11.	Is it possible to provide more information on the main biological hazards and means to prevent exposure?	More details are provided in section 7.5.1 of the Environmental Health Chapter (Chapter 7).
12.	What are the factors driving the so-called 'environmental health inequalities'? Is there sufficient evidence to support this kind of statement?	The statement on health inequalities is based on the findings of the report by WHO (World Health Organization) 2005. Commission on social determinants of health. Action on the social determinants of health: learning from previous experiences. World Health Organization. Available at: <a href="http://www.who.int/social_determinants/resources/action_sd.pdf">http://www.who.int/social_determinants/resources/action_sd.pdf</a> (Accessed 28 August 2017). This document forms part of the reference list in the report.
<b>Climate change</b>		
1.	How does the new legislation on climate change empower Government and businesses to take positive climate action?	New legislation supports Malta's efforts in terms of monitoring and reporting, and in terms of quantified emission limitation and reduction commitments towards EU and global mitigation efforts. It provides for: (i) the regular review of national low carbon development strategies and national adaptation strategies, (ii) the establishment of a Climate Action Board to, among others, oversee the implementation of the Act, and (iii) the setting up of a Climate Action Fund to support the implementation of the Act and the good fulfilment of Malta's obligations and commitments at international and EU level. "Malta's Low Carbon Development Strategy: Our Vision" further provides the starting blocks for the development of a national strategy to de-carbonise Malta's economy with a vision extending until 2050.
2.	What is the reason why Malta produced the highest levels of GHG emissions in 2012?	<p>The trend in GHG emissions reflects the level and extent of activities carried out that result in the generation of emissions. A combination of different emitting activities, with differing emission trend profiles, combine to produce the overall trend of total national GHG emissions.</p> <p>In the case of Malta, the Energy sector (incorporating, inter alia, the activity categories 'public electricity and heat production' and 'transport') has been, and remains, the major contributor towards overall national GHG emissions, including the overall trend profile. In particular, the activity category 'public electricity and heat production' (representing GHG emissions from conventional electricity generation in Malta's power stations) peaked in 2012, a sustained period of growing electricity generation by local sources, following which, emissions started decreasing due, mainly, to</p>



		<p>a number of technical and operational developments in the local electricity generation activity leading to a reduction in emissions. This in turn had an impact on the overall total national emissions trend. For further information kindly refer to the report referenced in Chapter 3: Climate Change: Malta’s Inventory of Greenhouse Gas Emissions and Removals, 2018, MRA, 2018, accessible at: <a href="https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/national-inventory-submissions-2018">https://unfccc.int/process-and-meetings/transparency-and-reporting/reporting-and-review-under-the-convention/greenhouse-gas-inventories-annex-i-parties/national-inventory-submissions-2018</a>.</p> <p>Chapter 3: Climate Change also provides more information on national and sectoral trends and the relationship between the two.</p>
3.	What is the reason for the peaks in methane emissions in 2007 and 2010 from the waste sector?	<p>The main contributor to GHG emissions in the Waste sector in solid waste treatment, particularly disposal in landfills. Again, changes in operational and technical approaches in the treatment of solid waste over the years have had a bearing on emissions. It is pertinent to also note that in the case of solid waste disposed in landfills, any such waste disposed continues to emit over a long period of years; this is in fact taken into account in the methodological approach used for the estimation of emissions from waste.</p>
4.	What is the main source of nitrous oxide emissions from agriculture?	<p>Emissions mainly originate from enteric fermentation (40.6%), manure management (36%) and from agricultural soils (23.4%). (Source: <a href="https://eufunds.gov.mt/en/EU%20Funds%20Programmes/European%20Agricultural%20Fund/Documents/Downloads%20And%20Links/AIR/ARP%202013.pdf">https://eufunds.gov.mt/en/EU%20Funds%20Programmes/European%20Agricultural%20Fund/Documents/Downloads%20And%20Links/AIR/ARP%202013.pdf</a>). This will be included in Chapter 3: Climate Change, and the Summary report.</p>
5.	What are the HFCs (for the public) and why are these chemicals predominant among the F-gases?	<p>Hydrofluorocarbons (HFCs) are the most common Fluorinated gases (F-gases) widely used in applications such as commercial refrigeration, industrial refrigeration, air-conditioning systems, heat pump equipment, fire extinguisher, aerosol propellants, and solvents.</p>
6.	What is the status of implementation of Malta’s Climate Adaptation Strategy of 2012?	<p>The Malta’s Climate Adaptation Strategy of 2012 is still in force and the last stock take on implementation was conducted in 2016-2017 with the review on accomplishments of the National Environment Policy. The results of this stock take have not been published but will feed into the drafting of the Malta’s Low Carbon Development Strategy, since this is will incorporate climate change resilience.</p>



7.	What is the status of Malta’s Low Carbon Development Plan?	<p>Currently, Malta is compiling its Low Carbon Development Strategy in accordance with requirements under the United Nations Framework Convention on Climate Change (UNFCCC), European Union legislation and as required by the Climate Action Act, 2015 (Chapter 543). It is envisaged that this strategy will be finalised and adopted during the second quarter of 2020, after undergoing public and stakeholder consultation.</p> <p>This strategy is based on the Vision Document (LCDS), which emphasises our aspirations to uphold national GHG emission reduction commitments in the EU up to 2020; to move towards a reduction of national GHG emissions as opposed to pursuing a continued limited increase in emission level post 2020; to reduce national GHG emissions post-2030 in full cognizance of Malta’s economic development and priorities of the time; to set sector-specific GHG emission reduction targets post 2020 to contribute to meeting reduction commitment taken at the national level and to identify and implement opportunities to enhance climate resilience in Malta.</p> <p>The Low Carbon Development Strategy is instrumental in charting a roadmap to enable the transition towards a low carbon future, providing the Maltese Government with a programme of implementable measure to achieve this strategic objective. Synergies with the National Energy and Climate Plan, mandated under the newly adopted Energy Union Governance Regulation, further strengthen the process, given that one of the energy union pillars also relates to decarbonisation.</p>
<b>Policy responses</b>		
1.	Were there other studies since 2001 that assess the economic benefits of environmental management and protection?	Chapter 9 gives more detail in this regard. Since 2001, updated studies to outline the economic benefits do not seem to exist. This is in fact recognized as a gap in data which needs to be taken into consideration in future SoERs and national strategies.
2.	What proportion of the revenue from environmental taxes is injected back into environmental management and protection?	This is another gap in data as no information was available in this regard.



3.	Is it possible to provide examples or more information about ‘other instruments’ (that are not legal) used to respond to environmental challenges? Does this mean that such other instruments do not have a legal basis?	Together with legal instruments, examples of other non-legal instruments are included in Section 11.1 of the Summary Report and in more detail in Chapter 9. These include economic instruments, awareness and education and voluntary instruments. Some of these different types of instruments may have a legal basis, while others do not depending on the intervention in question.
4.	Which are those environmental issues that are not entirely covered at EU level, but are a concern for Malta, necessitating national regulations and policies?	Most of the EU legislation, particularly Directives, provide an overall direction and framework for the specific environmental topic in question but do not necessarily specify how the Directive’s underlying spirit is to be achieved. It is therefore the norm that national legislation goes beyond EU legislation and adapts the framework to the local context. Policies are also adopted to support national issues and legislation, whilst also respecting and implementing EU legislation. Issues, such as those related to the protection and management of trees, licenses for tree specialists, protection of areas of national interest and land use planning and assessment, might also require additional regulations and policies, as at times, these are not covered by EU legislation.
5.	Why is there a reference to MEPA rather than ERA or PA (as relevant) on pg. 83? Is this information on the regulatory and permitting regime of industrial installations the most recent?	Reference is made to MEPA since during the reporting period 2009 – 2015 of this SoER, MEPA was the Authority which housed the environmental arm at the time and hence the actions undertaken or referred to on page 83 were undertaken by MEPA not ERA or PA. The information provided was the most recent for the reporting period in question. This will be clarified in the Summary Report Introduction.
6.	How many infringements did Malta have, year by year, between 2009 and 2015? How many do we have now? What is the nature of these infringements?	Detailed information on the infringements is provided on pages 25 and 26 of Chapter 9: Policy Responses.