

EPD's comments on the likely significant environmental effects of the Aquaculture Strategy

30th April 2012

1. Summary

- 1.1 MRRA is proposing an Aquaculture Strategy for Malta, prepared in March 2012. The draft strategy proposes three growth scenarios for the future expansion of the sector and identifies a number of existing and potential new aquaculture sites. Some of these sites are located close to the shore. The size of these sites range from 1.5 km² to 7.5 km² for a total maximum potential area of around 25 km².
- 1.2 The proposed strategy falls within the scope of the Strategic Environmental Assessment Regulations, 2010 (L.N. 497 of 2010) and therefore, has been screened by MRRA to determine the need for a Strategic Environmental Assessment (SEA). MEPA has reviewed the SEA screening template for the draft Aquaculture Strategy and notes that MRRA will carry out an SEA of the strategy in line with SEA Regulations. MEPA's proposed revisions to the SEA screening template are attached in Appendix 1. In particular, we would highlight that the statement "However it should be pointed out that these regulations allow any development subject to the carrying out of the necessary Appropriate Assessments (AA)" is incorrect. Proposals, whether a plan or a project, which are likely to have a significant impact on designated sites (or protected habitats, etc) should be subjected to an Appropriate Assessment. The Aquaculture Strategy itself should be subjected to this type of assessment. Further information on the Appropriate Assessment process is available from <http://www.mepa.org.mt/permitting-ea-aaprocess>.
- 1.3 In accordance with Regulation 6(4) of the SEA Regulations, MEPA must be consulted on the scope and level of detail of the information to be included in the environmental report. We will comment on these issues once MEPA is consulted at the scoping stage of the SEA process.
- 1.4 At this stage, MEPA would highlight the following important issues:
 - all environmental issues associated with the aquaculture strategy should be addressed holistically at scoping stage. The environmental report should focus on environmental impacts which are likely to be significant;
 - the assessment should address the likely significant environmental effects of both the proposed aquaculture sites and the three growth scenarios;
 - environmental objectives emerging from EU and national legislation, including the planning and environmental permitting regimes, should be taken into account during the assessment;
 - the environmental report should take into consideration all relevant MEPA plans and programmes (accessible from www.mepa.org.mt) and their relationship with the Aquaculture Strategy;
 - the assessment should also consider: (i) suitable alternatives, including alternative site assessments; and (ii) secondary, cumulative, synergistic,

short, medium and long-term, permanent and temporary, positive and negative impacts; and

- **the Aquaculture Strategy requires an Appropriate Assessment in line with Regulation 19 of L.N. 311 of 2006 (as amended).** The Appropriate Assessment may either be integrated as part of the SEA process or carried out in parallel to the SEA, provided that the requirements of both L.N. 497 of 2010 and L.N. 311 of 2006 (as amended) are satisfied.

1.5 These issues should be taken into account during the preparation of the scoping report and the carrying out of the detailed environmental assessment.

1.6 The following comments focus on:

- the environmental issues which MEPA considers relevant to the strategy and therefore, should be taken into consideration at scoping stage; and
- issues related to the Appropriate Assessment as per L.N. 311 of 2006 (as amended).

2. Main environmental issues

2.1 The environmental impacts of the proposed Aquaculture Strategy depend on various factors, including: the suitability of the chosen sites (both at sea and on land); the intensity of fish farming activities at these sites; their day-to-day operation and practices, such as waste management and feeding; their relationship with other coastal and marine activities; and the sensitivity of the affected environment. The potential environmental impacts associated with aquaculture include:

- degradation of marine habitats (e.g. Posidonia meadows) and impacts on marine ecosystems;
- impacts on protected areas and species at sea and on land (e.g. SPAs);
- impacts on the geomorphology of the coast, including impacts associated with land-based activities and operational malpractices;
- pollution of the seabed and the water column. This issue would be more significant if fish farms are located in enclosed and/or shallow areas;
- impacts on the seascape and visual impact;
- impacts on water quality, as a result of discharges of waste containing high concentrations of organic matter and contamination of the aquatic environment and organisms with chemicals;
- degradation of the marine environment resulting in adverse impacts on other users; and
- consequential impacts resulting from the possible displacement of other activities.

2.2 Issues associated with the operation of land-based facilities may include: land take up for ancillary facilities (e.g. office space and storage); trampling by heavy vehicles and storage of material on natural sites; hard surfacing of rural/coastal areas to improve access; spreading of nets on natural areas for repair, etc. Disused land based facilities also tend to result in further dereliction of rural/coastal areas (e.g. the land based facility at Xemxija). This could increase pressure for more speculative development in such sensitive locations. Therefore, land-based facilities should be located in more suitable locations away from the coast (e.g. industrial sites) and any facilities requiring a coastal location should be directed to port areas.

- 2.3 MEPA considers that these issues should be assessed in detail at this stage as part of the environmental assessment processes. Suitable alternatives, including alternative sites, should be considered in line with the requirements of both L.N. 497 of 2010 and L.N. 311 of 2006 (as amended). Fish farms should be located offshore in designated zones well away from the coast, in order to ensure that their environmental impacts are addressed holistically. Sensitive locations should be avoided in the first instance. It is also important to ensure that the environmental carrying capacity of the affected areas is not exceeded.
- 2.4 With respect to waste management, the aquaculture strategy states that the disposal of tuna processing waste will be addressed when the on-shore disposal facility at the civil abattoir is operational. We are informed that the abattoir is fully operational and therefore, the disposal of fish waste at the civil abattoir should be taken into consideration in the strategy and during the SEA process.
- 2.5 Moreover, any proposed aquaculture activities on land and at sea, whether individually or cumulatively, should not result in environmental damage and should not adversely affect Malta's ability to meet its obligations under all relevant supra-national commitments including the Marine Strategy Framework Directive (MSFD), the Water Framework Directive (WFD), the Habitats and Birds Directives and the Barcelona Convention and its Protocols. The proposed strategy and the environmental assessment processes should also take into account the work carried out as part of the implementation of the MSFD and the approved Water Catchment Management Plan in order to ensure there is no deterioration of the status of water bodies and the marine environment. Other relevant policies and plans are available from www.mepa.org.mt, including the National Biodiversity Strategy and Action Plan.
- 2.6 The types of environmental and planning permits required for the setting up, operation and management, and decommissioning of these aquaculture sites, both on land and at sea, should be clearly addressed in the revised strategy and the SEA process. This includes waste management permitting for aquaculture and any disposal of associated waste at sea.

3. Appropriate assessment

- 3.1 The SEA Regulations and the EU Directive state that any plan or programme which requires an assessment under Articles 6 or 7 of the Habitats Directive (i.e. an Appropriate Assessment), should be subjected to an SEA. In accordance with the provisions of Legal Notice 311 of 2006 (as amended) and Articles 6/7 of the Habitats Directive, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of SACs/SPAs¹ concerned and, if appropriate, after having obtained the opinion of the general public. Any plan (defined in its broadest sense as per EU Guidance) not directly connected with or necessary to the management of protected sites but likely to have a significant effect on an SAC/SPA, either individually or cumulatively, shall be subject to an Appropriate Assessment. MEPA does not consider the proposed aquaculture strategy to be connected with or necessary to the management of these protected sites.

¹ Special Areas of Conservation and Special Protection Areas

- 3.2 The proposals in the draft aquaculture strategy may have an adverse impact on SACs/SPAs and protected habitats/species. **Therefore, the strategy requires an Appropriate Assessment procedure in line with Regulation 19 of Legal Notice 311 of 2006 (as amended).** MEPA notes that particular fish farms have already resulted in adverse impacts on *Posidonia* meadows and that some proposed sites for aquaculture in the draft strategy overlap with the spatial distribution of *Posidonia* beds, mearl beds and/or protected sites. Some of the proposed sites are also located close to sites protected for avifauna (SPAs). Suitable alternatives, including an alternative site assessment for the marine sites, should be considered as part of the Appropriate Assessment process.
- 3.3 Amongst other relevant issues, the Appropriate Assessment should consider the following:
- impacts on *Posidonia oceanica* priority habitats for which the site was designated as Natura 2000 (SAC) site i.e. MT0000105 Żona fil- baħar fil-Grigal ta' Malta. This should consider issues of water quality, shading, anchorage, currents. Direct as well as indirect impacts are to be considered;
 - impacts on habitats and/or species as yet undesignated but for which Malta has an obligation to identify Natura 2000 sites such as sandbanks, reefs, etc;
 - direct impacts on avifauna vis-à-vis the Natura 2000 sites (SPAs) MT0000017, Kemmuna, Kemmunett, il-Ħaġriet ta' Bejn il-Kmiemen u l-Iskoll ta' Taħt il- Mazz and MT0000009 Ramla tat-Torri / Rdum tal - Madonna Area and any marine SPAs which are in the pipeline;
 - in view of the cumulative impacts vis-à-vis Is-Sikka l-Bajda wind farm, the AA should also assess the impacts on a wider area and if considered necessary include impacts vis-à-vis migratory species also considering SPA MT0000015 L-Għadira Area; and
 - impacts on cetaceans, if any.
- 3.4 The Appropriate Assessment should also take into consideration the potential impacts of any required ancillary facilities on SACs/SPAs and protected habitats/species. Protected sites and other natural areas should be avoided for these types of facilities.
- 3.5 Carrying capacity should also factor in the findings of the Appropriate Assessment, vis-à-vis the habitats, species, predominant currents, etc.
- 3.6 Moreover, the Environment Protection Directorate (EPD) within MEPA had already raised concerns on individual aquaculture proposals, viz. the North Aquaculture Zone and the land based hatchery at Xrobb l-Għaġin. We note that these proposals are being included in the draft Aquaculture Strategy. EPD's comments on these proposals should be taken into consideration as part of the revision of the aquaculture strategy and the carrying out of both SEA and AA. EPD's comments on these proposals are detailed below.

A. North aquaculture zone:

- 3.7 The discussions on this zone were already in place in 2007, where EPD forwarded the Terms of Reference for an Alternative Site Assessment (see document attached). The document assessed in a broad manner the sites for relocating fisheries in the north and south. In the north area, these sites are all located within a marine Natura 2000 site (although not identified in on page 71

and Figure 17 of the aquaculture strategy) and potentially also affecting the land-based Natura 2000 sites (e.g. Kemmuna, L-Añrax) vis-à-vis disturbance to species such as avifauna. In view of potential future designations of Natura 2000 sites for habitats such as sandbanks, reefs, etc. the possibility of impacts of yet undesignated sites cannot be excluded. Furthermore the designation of marine Special Protection Areas that need to be identified under the Birds Directive should also be considered. It is unclear whether the approval of this proposal would have any impacts on seabirds in terms of feeding patterns and behaviour.

B. Land based hatchery:

- 3.8 The original (2010) and latest (2011) EPD correspondence regarding MRRA's preferred site for the land based hatchery are attached. A site inspection was also carried out by EPD, however the concern for the siting still remains, especially vis-à-vis the permanence and irreversibility of the envisaged interventions.

Appendix 1 – MEPA proposed revisions to the SEA screening template

Part C – SEA Criteria

SEA Criterion	Yes/No (no other answer except Yes/No)	Explanation
Will the PP, in view of its likely effect on sites, require an assessment under Articles 6 or 7 of the Habitats Directive? (Regulation 4(2)(b))	Y	There may be is an overlap between the proposed aquaculture zones and the designated SACs/SPAs. The proposed aquaculture sites may also potentially affect species such as avifauna within SPAs, and on a wider area due to cumulative impacts with other proposed projects in the area. In addition, in view of potential future designations of Natura 2000 site marine SACs and SPAs, for habitats and species such as sandbanks, reefs, avifauna etc. the possibility of impacts of yet undesignated sites cannot be excluded. Therefore, the draft aquaculture strategy requires an assessment under Articles 6 and 7 of the Habitats Directive.
Is the PP likely to have a significant effect on the environment? (Regulation 4(5))	Y	The SEA will be conducted to determine the likely significant effect on the environment.

Part D – Likely Significance of Effects on the Environment

Criteria for determining the likely significance of effects on the environment	Likely to have significant environmental effects? Yes/No (no other answer except Yes/No)	Summary of significant environmental effects (negative and positive)
The the degree to which the PP influences other plans and programmes including those in a hierarchy:	N Y	The Strategic Plan for the Environment and Development (SPED), which will be setting the national policy on Marine Spatial Planning would be influenced due to the need to allocate marine space for

		<p>aquaculture. However this policy is still at drafting stage.</p> <p>The Flora and Fauna Natural Habitats Protection Regulations (2006) as amended given that there may be is an overlap between the proposed aquaculture zones and the north-east Marine Protected Area SACs. SPAs and other protected habitats/species may also be affected. However it should be pointed out that these regulations allow any development subject to the carrying out of the necessary Appropriate Assessments (AA).</p> <p>The National Environment Policy only refers to the fact that an Aquaculture Strategy is being drafted. It will not be influenced by the actual content of the Aquaculture Strategy, but the completion of the Strategy will imply a successful completion of one of the NEP targets.</p> <p>Other relevant PPs include the Water Catchment Management Plan, the work that is being carried out for the implementation of the Marine Strategy Framework Directive and the draft National Biodiversity Strategy and Action Plan, amongst others.</p>
<p>environmental problems relevant to the PP</p> <p><u>Comment:</u></p> <p>The main environmental issues associated with aquaculture are outlined in our comments. These issues should be taken into account in this section of the template.</p>	<p>Y</p>	<p>The Strategy proposes two environmental issues: Reducing pressure on wild bluefin tuna stocks as the proposed strengthening of production of closed cycle species (CCS) will shift the trend away from the capture of bluefin tuna for farming purposes, thus creating increases in production that will lead to a sustainable industry.</p>

		<p>A shift towards an increased production of CCS will open the doors to more diversified products that will feed on artificial EU-approved pellets that will decrease the use of trash fish for fish meal due to the use of alternate protein sources.</p> <p>Further, the development is to be according to agreed carrying capacities that are calculated according to the aquaculture site. These carrying capacities—will are expected to minimise any interaction the aquaculture operating unit may have on the seabed and to enable the The seabed—will to regenerate once the fish farming activity is stopped.</p> <p><u>Comments:</u></p> <p>1. It is unclear whether the text “carrying capacity” is referring to the environmental carrying capacity (i.e. the point at which unacceptable impacts become evident) or just the physical carrying capacity of the site (i.e. how much the site can accommodate). This issue should be clarified.</p> <p>2. The SEA process should take into consideration the overall environmental carrying capacity rather than just the carrying capacity of each site in isolation from each other. This should form part of the assessment of cumulative impacts as per L.N. 497 of 2010.</p> <p>3. The last point regarding the stopping of fish farming activities needs to be tied to decommissioning commitments.</p>
the probability, duration, frequency and reversibility of	Y	The SEA will be conducted to determine the likely significant

the effects		effect on the environment. Some of the envisaged interventions (e.g. coastal rock cutting to accommodate the Xrobb I-Għagin hatchery) are expected to be irreversible.
the cumulative nature of the effects	Y	The SEA will be conducted to determine the likely significant effects, including cumulative impacts, on the environment.
the risks to human health or the environment (e.g. due to accidents)	Y	All species suggested for aquaculture shall be endemic to the Mediterranean Sea so any escapees will not cause any environmental damage. Fish diseases are also specific for the species farmed and the preparation of a disease contingency plan is recommended within the PP. Page 44 of the aquaculture strategy states that the disposal of fish processing waste at sea poses a risk of disease transmission to both farmed and wild stocks of fish and the risk of fish processing waste washing up on tourist beaches. There is also the issue of marine water quality deterioration (e.g. eutrophication).
the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected)	Y	The strategy proposes three industry growth scenarios together with a number of new zones which could be used for aquaculture per scenario. The size of these zones range from 1.5 km ² to 7.5 km ² for a total maximum potential area of around 25km ² ; only 0.7% of Malta's territorial waters. <u>Comment:</u> The proposed aquaculture sites are located along the most accessible part of the coast of Malta and therefore, the proposed strategy is likely to affect a significant size of

		<p>the population in view of the intensity of activities being carried out along such coast, both at sea and on land. Therefore, the accessible coast and the immediate marine waters are more sensitive to the interventions proposed in the strategy. This means that the percentage (%) of the proposed area is proportionally larger vis-à-vis the accessible coast.</p>
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