BirdLife Malta's comments on the EIA ToRs: Construction of an Organic Processing Plant in Malta (EA/00019/22)

16 September 2022

BirdLife Malta analysed the PDS available online as a part of the public consultation process with regards to the EIA ToRs for the development of the Organic Processing Plant (OPP) in Maghtab. In relation to this we would like to provide our comments listed below.

First of all, it must be noted that the location and nature of the proposed OPP raises high environmental concerns, particularly due to the fact that it is adjacent to several Natura 2000 sites, including the Marine Protected Area *Il-Baħar Ta' Madwar Għawdex* (MT0000112), and also is in close proximity to SAC *L-Ghadira s-Safra* (MT0000008) and *Is-Salini* SAC (MT0000007), as well as in just 300m away from the protected natural coast (as per the Local Plan Policy NA04). Article 6 of the Habitats Directive (Council Directive 92/43/EEC) provides that "any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implication" (also according to S.L. 549.44). The site is about to occupy an area of 20,262 m^2.

The development in such a sensitive coastal area should be assessed in terms of light pollution both during the construction and operation phases. Malta hosts colonies of protected seabird species (Yelkouan and Scopoli's Shearwaters, Mediterranean Storm-petrel) nesting on its cliffs. Seabirds are attracted to light sources from as far away as 15 km. Therefore, outdoor lighting schemes within light-induced grounding hotspots and other coastal areas must be designed with particular attention to seabirds, especially given that Malta is heavily polluted with light[1]. To limit any increase in light pollution at these areas, new developments should adhere to the best practices described in our Guidelines for Ecologically Responsible Lighting[2], as well as ERA's Guidelines for the Reduction of Light Pollution in the Maltese Islands. It is critically important to work on reduction of the light pollution levels in Malta, therefore, strategically thinking, we suggest reassessing the outdoor lighting scheme in Maghtab complex as a whole taking into consideration the lighting scheme of the proposed OPP and the scheme already present on site.

It is highly important to assess the impact on ecology during the construction and operation of the OPP, including the impact on protected habitats and species which can be affected by the development. Apart from others, we strongly suggest analysing possible implications on the Yellow-legged gull population which feed on waste at Maghtab. With the OPP coming into operation the amount of organic waste in the landfill is expected to be gradually reduced, thus depriving the gulls of their source of food. This, in turn can lead to them exploring other foraging areas which can potentially overlap with the foraging areas of the protected seabird species (particularly, Annex 1 species Yelkouan and Scopoli's Shearwaters, Mediterranean

[1] Major new study on light pollution in Malta - Newspoint - University of Malta (um.edu.mt)

[2] https://birdlifemalta.org/wp-content/uploads/2020/07/Guidelines-for-Ecologically-Responsible-Lighting.pdf

Storm-petrel) creating a situation of additional food competition. Having been a food source for various years, the impact of the removal of this food source on gull populations needs to be assessed and predicted, such that suitable mitigation measures are implemented. These could take the form of a gradual reduction in availability rather than a sudden one, which could result in the starvation of large numbers of birds that may venture into nearby urban areas or even create a possible hazard along the coast road. In this relation, the impact on the protected seabirds should be evaluated carefully and in detail.

At the moment, the area in question is occupied by agricultural fields as can be clearly seen on Picture 1. Since the development is going to take up the agricultural land, there is a need to assess the impact of further loss of the arable land, as well as impacts on agroecosystems.

Picture 1. The border of the EcoHIVE complex and the proposed OPP. Source: PDS

At the same time, according to the Central Malta Local Plan, "agricultural production and efficiency is being impeded by problems of pollution at Maghtab". The facility of such a nature as OPP creates risks of soil contamination which should be addressed accordingly under the EIA process. The complexes which involve the processes of anaerobic digestion can potentially become a source of toxic spills, causing environmental damage. For instance, the UK's Environment Agency has tracked rising incidents of serious pollution associated with the operation of organic processing facilities, in some cases increasing more than 50% during the year[3,4]. This is a concerning sign and we believe that close attention should be given to the

[3] Document template: green report (environment-agency.gov.uk)
[4] Pollution_incidents_2015_evidence_summary_LIT_10487.pdf (publishing.service.gov.uk)

evaluation of such risks. Specifically, it is important to assess the risks and propose relevant mitigation measures of nitrates and other contaminants leaching into the soil during the operation of the plant. Besides that, the impacts coming from the loss of soil should also be assessed accordingly.

The assessment of an impact of the construction and the operation of the OPP on the ambient air quality should also be given special consideration. During the construction, the major pollutant is expected to be particulate matter which concentration is already of high concern in the Maltese Islands. The studies show that residual digestate set for composting frequently becomes a source of release into the air of such gases as CO2, CH4, N2O, NH3, H2S, CO[5]. In addition, the combustion of biogas produced during the process of anaerobic digestion is a source of carbon monoxide, nitrogen oxides and sulphur dioxide emissions into the air. It is estimated that "the use of internal combustion engines to burn this biogas also can generate formaldehyde emissions at higher levels than occur with other fuels"[6], therefore it would be useful to include in the EIA the assessment of the impact on air quality in this perspective.

In line with the PDS, as much as 44,500 m3 of material is planned to be excavated during the construction phase. Therefore, it is important to analyse the impacts on geology and geomorphology (with special attention given to the fact that the scheme is located in the immediate distance from the coast). Most of the excavated material is said to be set for disposal. In this regard, we suggest exploring further options besides disposal of a potentially reusable material. The EIA process should also thoroughly cover the assessment of the Waste Management Plan for the site, both during the construction and operation phases.

Another concern originating from a development of such a nature is the cumulative effect combined with other proposed developments and already operating facilities in the area (EcoHIVE complex as a whole; Waste to Energy plant; proposed 2nd electrical interconnector between Malta and Sicily). According to the Rural Objective 3 (SPED, 2015) the cumulative effect of developments in rural areas should be controlled, therefore we strongly recommend conducting a rigorous assessment of the possible negative consequences for the environment and human health in relation to the operation of the listed facilities altogether.

We also would like to stress on the importance of analysing all the possible options, giving detailed review of different processes which the organic processing farm could use for its purposes with in-depth study of the advantages and disadvantages of each. For example, and independent research conducted in Brunel University London found that aerobic digestion using LFC biodigesters in a community produces 73% less emissions than anaerobic digestion[7].

BirdLife Malta reserves its right to make further comments, recommendations, and observations during the EIA process of such a development.

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[5] Air Pollutant Emission Rates for Dry Anaerobic Digestion and Composting of Organic Municipal Solid Waste | Environmental Science & Technology (acs.org)

[6] Anaerobic Digesters | Department of Environmental Conservation (vermont.gov)

[7] https://powerknot.com//wp-content/uploads/2021/09/Research_from_Brunel_University_AD_and_LFC.pdf