

## BirdLife Malta’s comments on the Green Paper on the Regulation of Groundwater Abstraction in the Maltese Islands

18th January 2024

BirdLife Malta has analysed the published draft Green Paper on the Regulation of Groundwater Abstraction in the Maltese Islands and we would like to contribute to the public consultation process on this important document. Whilst understanding that the proposed Paper is aimed at setting the ground for the establishment of further legislative framework for ground water regulation, we believe it could be a crucial step in framing the strategy for sustainable use, protection and restoration of our groundwater resources.

Groundwater pollution is a great threat to public health and the environment. As mentioned in the Green Paper itself, a major part of this valuable resource in Malta is contaminated with nitrates and other pollutants leaching from the surface. Unsustainable abstraction of groundwater is another significant threat, especially in the Mediterranean, where the weather conditions are getting drier and the precipitation patterns are changing. Malta has the second highest Water Exploitation Index in Europe with an increasing trend, according to Eurostat data<sup>1</sup> (Figure 1). Overabstraction combined with climate change is leading to salinisation of water sources, and at particular risk are the karstic aquifers of the Mediterranean coast, including Malta<sup>2</sup>. The above-mentioned pressures are expected to increase as a result of population growth and higher water demand due to a changing climate. Therefore, it is absolutely vital for the country’s water security to work out a strong and ambitious approach regarding the regulation of groundwater use.

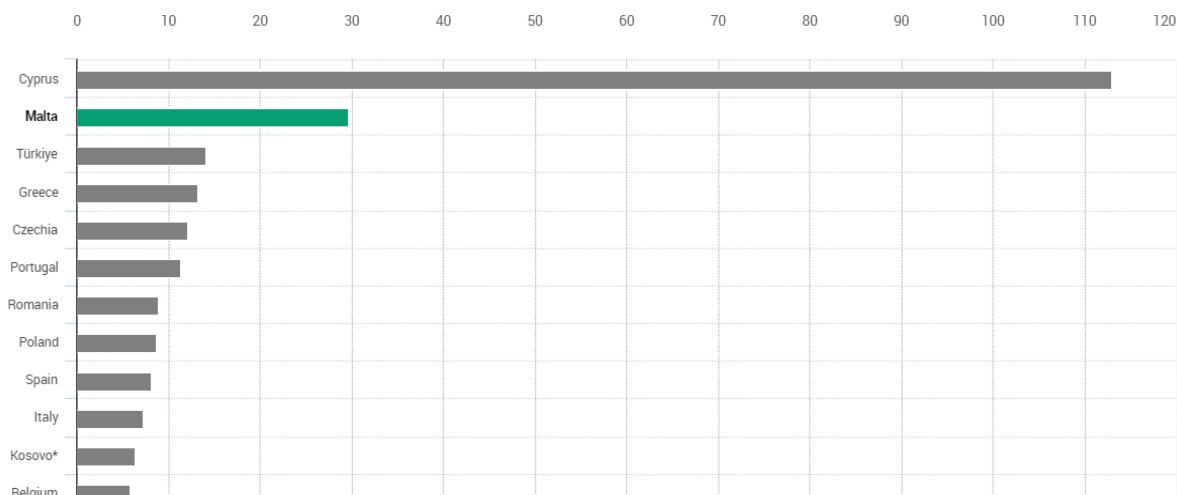


Figure 1. Water Exploitation Index, plus (WEI+). Source: European Environment Agency

<sup>1</sup> [Statistics | Eurostat \(europa.eu\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1)

<sup>2</sup> [Europe’s groundwater — a key resource under pressure — European Environment Agency \(europa.eu\)](https://www.eea.europa.eu/en/press-releases/2022/04/europe-s-groundwater-a-key-resource-under-pressure)



## Efficient use and prevention of wastage

### *Agriculture*

In Malta, agriculture is one of the major consumers of groundwater. This is especially the case for private abstraction, 76% of which is used for agriculture. At the same time, the document states that most of such privately abstracted water “is sourced primarily from boreholes (or spieri)”. Furthermore, the presented statistics shows that the number of registered low-yield groundwater abstraction sources, including spieri, amounts to 3,405. No volumetric tariffs will be applied to these operators because most of these sources do not have fixed pumping equipment to which water flow meters can be attached. This means that the exact (or close to exact) volume of abstracted groundwater cannot be quantified in principle. We agree with the position of the government that support to farmers in relation to water supply is crucial and the idea of this Green Paper should in no way be perceived as an additional burden on the agricultural sector, especially small-scale farmers. At the same time, given the Maltese reality where groundwater sources are under an immense pressure, we believe that stronger incentives and conditions may be considered to avoid water wastage. To ensure as little water is wasted as possible, the government could take a pro-active position and launch an initiative on the implementation of sustainable irrigation systems (such as drip irrigation) for the agricultural sector, including proposing subsidies to small-scale farmers, and consultations on how to irrigate efficiently. Additional benefits can be given to farmers who opt for a no-pesticides approach, thus supporting organic farming and contributing to the improvement of the qualitative status of groundwater.

It is mentioned in the consultation document that “several agricultural activities do not have an alternative water supply to groundwater and are not served by an alternative source of water supply”. Thus there should be further investment in providing alternative sources of water to support agricultural activities. The ‘New Water’ system is still not fully implemented in various localities, and its supply and reliance on can only be improved with further investment in the system. We welcome the initiative to provide New Water to agricultural users at no price. Taking into account the volumes of water required by the agricultural sector and the volumes of New Water produced up to date, we suggest prioritising small-scale farmers and farmers with no access to alternative sources of water supply except groundwater.

Other incentives could also include consultation and assistance in harnessing and storing rainwater, a lot of which is wasted in various areas. Agricultural land which is next to sealed urban areas could well benefit from the harnessing and collection of runoff which is then supplied to agricultural land, rather than wasted away to sea.

### *Other sectors and consumers*

According to the Green Paper, sometimes boreholes are used “to address the water needs of swimming pools”. We believe that, given the scarcity of this resource, such use of groundwater should be restricted, as other relevant options surely can be explored.

Although we realise that some sectors are more dependent on groundwater than others, we would like to emphasise that at this point it is important to encourage all of users to diversify their water supply

sources and increase efficiency of water use. Sectors, such as industry, construction and development can start opting more for such sources as rainwater, New Water and reverse osmosis plants whenever possible.

A significant threat to the state of groundwater in Malta is illegal or inappropriate use. An example of the latter is the abstraction of groundwater (and even the misuse of New Water) to meet the needs of artificial ponds. Such ponds are common in Maltese ODZ areas and are normally created purely for hunting and trapping purposes, such as to attract waterbirds. A great number of such ponds are created without the required permitting procedures, and are also frequently located within protected areas, including Natura 2000 sites, virtually becoming sinkholes of avifauna. The proliferation of these ponds is tangible from online sources such as Google Earth and aerial photography, and clearly reflect a state of lawlessness and misuse of our precious water resources for a selfish utilisation. Reporting efforts by BirdLife Malta on such illegal developments have to date been met with a very slow response (if at all in some cases) from both the Environment and Resources Authority and the Planning Authority. Literally closing the tap on such misuse of water will go a long way in preserving water sources, as well as lessen the environmental impact such structures have on biodiversity.

According to the Green Paper, the total volume of groundwater abstracted in 2021 was at around 12 Mm<sup>3</sup> which was also the approximate volume for at least the last 5 years (Figure 1). However, the concluding part of the document establishes the cap of groundwater to be abstracted annually at 14 Mm<sup>3</sup> until 2030 which will bring us back at the level of 2001-2002. Given the obligation to achieve good quantitative status under the Water Policy Framework Regulations, such a limit does not reflect a much-needed ambition.

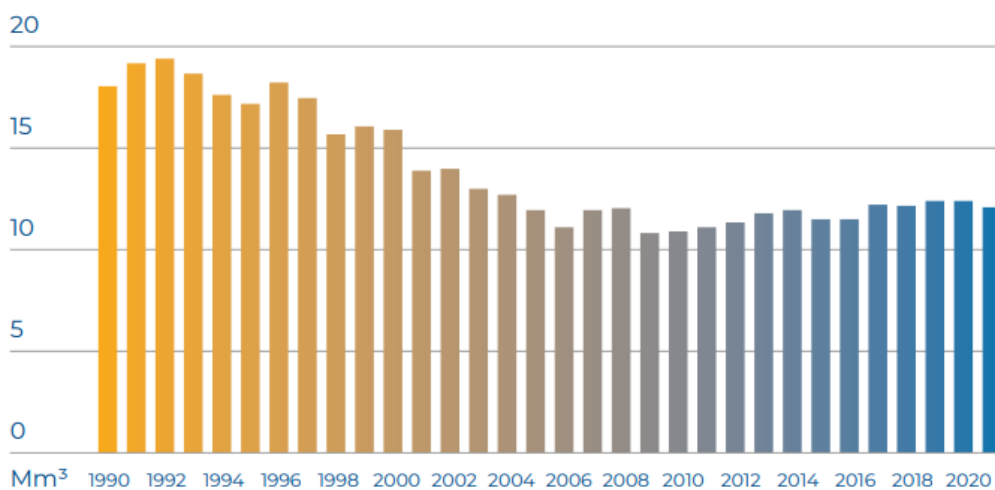


Figure 2. Groundwater abstraction volumes during 1990-2020. Source: Green Paper

### Permitting procedure and tariffs

The permitting procedure should rely on a set of criteria which would ensure that water abstraction is sustainable. This includes, the rightful purpose of water use, feasible water saving measures at place,



diversification of water sources, etc. The Water Policy Framework Regulations mandate the establishment of water pricing policies for the provision of water services. We suggest that a differential approach should be applied depending on the type of consumer and the volumes of groundwater consumed.

### **Policy synergies**

Ideally, the Green Paper and the subsequent regulatory framework should be developed in synergy with the Third River Basin Management Plan (which is currently at the stage of public consultation) which would allow for environmental considerations in a comprehensive manner with the aim to achieve good qualitative and quantitative status. It will be beneficial if the work on the updating of Management plans for the terrestrial N2K sites goes hand in hand with the formulation of groundwater regulations. One of the issues that could be tackled with such a joint approach are illegal artificial ponds within the N2K sites. Wetland nature reserves protected under the Ramsar Convention, such as Simar and Ghadira, will benefit from good groundwater status.

The policies relating to the protection, restoration and sustainable use of groundwater should be well-integrated into other sectoral policies, including the planning policies due to the many ways how development can impact the state of groundwater. For instance, in terms of alternative sources of water for private or commercial use, planning policies could ensure a more efficient collection of rainwater in urban and rural areas. Because of unsustainable planning and development actions in recent decades, land use in the country has changed drastically, while the developed area has widened across the Maltese Islands, including the increase of impermeable surfaces. Such a surface normally prevents the percolation of runoff water into the ground and therefore leads to a diminished capacity/regeneration of natural aquifers to maintain and restore their level. Relevant policies should address such pressures by restricting the areas where such surfacing is allowed and promoting green infrastructure, and even go all the way as ensuring appropriate open unsurfaced spaces are reintroduced where aquifers have gone depleted. Open unsurfaced parks and green spaces would contribute to this, while naturally the protections of valleys and watercourses from surfacing and development is also crucial.

### **Other remarks**

While the creation of regulatory mechanisms is an important measure to kick start the relevant changes, implementation and enforcement remains a challenge. Therefore, it is important for the authorities to work together with environmental NGOs and citizens to enhance the understanding and awareness of water scarcity and the importance of sustainable use including water abstraction. The document refers to groundwater as a “cheaper alternative” for commercial use and this perception should be changed. This “cheap” water supply is under risk of depletion in both quantity and quality, which can lead to drastic consequences for Malta’s security, environment and public health and wellbeing. It is crucial to formulate and deliver clear and strong messages; to launch government incentives and subsidies to encourage a more efficient use of water resources, including groundwater.