

Do Malta & Gozo have any natural spaces left?

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(**N**o' I said to myself. 'Lol, no,' my friends sniggered at me.

IS THIS TRUE?

First of all, let's establish the basics: How would you define the word 'natural'?

After lots of uhm-ing and ah-ing, I looked it up in the Collins English dictionary: 'untouched by humans'. It had a certain romance to it.

So, where are Malta and Gozo's natural spaces? Well, most cliff faces are untouched by humans by virtue of them being inaccessible. The same goes for inaccessible pockets of the coastline. However, after a moment of reflection I realised that the latter are most likely dotted with microplastics. Moreover, both spots feel the indirect impact of humans: climate change, air pollution, and noise pollution.

This means there are practically no natural spots left in Malta (and around the world). But apart from this sad-trombone-sound of a conclusion, the more I thought about the definition I had picked, the more uncomfortably it sat with me. As Prof. Elisabeth Conrad of UM's Institute of

Earth Systems points out, the idea of nature being something which is 'untouched by humans' is a Western conceptconcept that separates humans from nature – us and them. It creates an artificial distance which allows us to wreak havoc on nature.

Conrad suggests a more holistic and inclusive definition, one which fits better within the context of Malta and Gozo: 'Spaces which are reflective and respectful of multiple life forms, not just human ones.'

This has a certain harmony to it. So, let's try again: do Malta and Gozo have any natural spaces left?

WHAT DO THE NUMBERS SAY?

27.5% of the country is built up and covered by residential buildings, offices, factories, abandoned buildings and road infrastructure, as per the EU's LUCAS survey. Is that a lower or higher number than you were expecting?


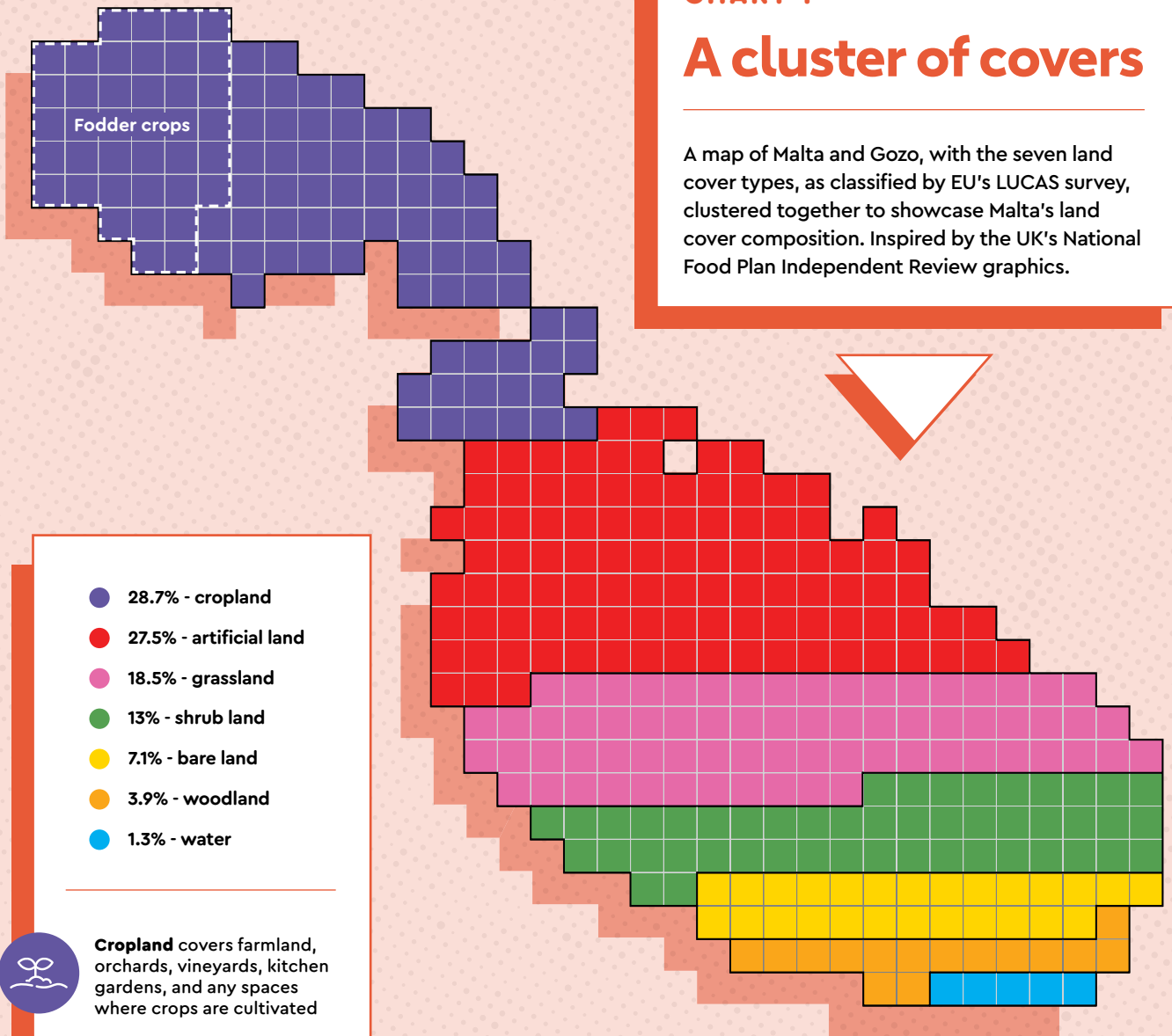
Here's the kicker; the country with the second highest built-up area in the European Union (EU), the Netherlands, has 12.6% of its area classed as such. Percentage-wise, that's less than half of 

CHART 1

A cluster of covers

A map of Malta and Gozo, with the seven land cover types, as classified by EU's LUCAS survey, clustered together to showcase Malta's land cover composition. Inspired by the UK's National Food Plan Independent Review graphics.



- 28.7% - cropland
- 27.5% - artificial land
- 18.5% - grassland
- 13% - shrub land
- 7.1% - bare land
- 3.9% - woodland
- 1.3% - water



Cropland covers farmland, orchards, vineyards, kitchen gardens, and any spaces where crops are cultivated



Artificial land covers built-up areas and road infrastructure



Grassland covers permanent pastures and meadows (i.e. they cannot be part of a crop rotation system)



Shrub land covers shrubs, bushes and low woody plants, including the famous Maltese garigue landscape



Bare land covers bare rock, sand and sparse vegetation such as moss



Woodland covers areas with a tree canopy cover of at least 10%



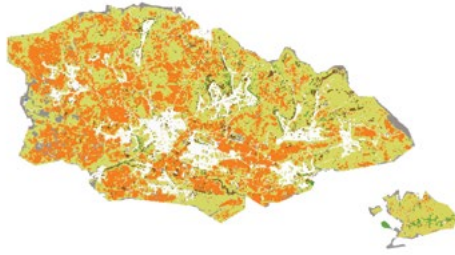
Water covers lakes, reservoirs and salt pans

1. Over half of the country (56.2%) is taken up by artificial land or cropland. This is somewhat concerning because both offer limited connectivity to nature for humans.
2. While cropland bears a heavy human touch, it plays a very important role for animals, allowing them to move between spaces and buffering them from built-up spaces.
3. The largest chunk of cropland (more than a third of it) is used to grow fodder crops for animals!
4. Broad-leaved woodland, made up of trees such as oaks, olive trees and carob trees, covers a mere 1.1% of Malta. A prime example is Buskett.
5. Coniferous woodland covers 1.9% of the country and includes Aleppo pines (found at Buskett) and Malta's national tree, the Sandarac gum tree (found at Miżieb).
6. In 2012, 23.8% of the land was classified as artificial. That difference of 5.2% from the latest data might not seem like much, but it is equivalent to 12km², or 15 Vallettas.
7. We have lost 28km² of woodland, shrubland and bare land since 2012. That is equivalent to almost 400 Fosos tal-Furjana!

CHART 2

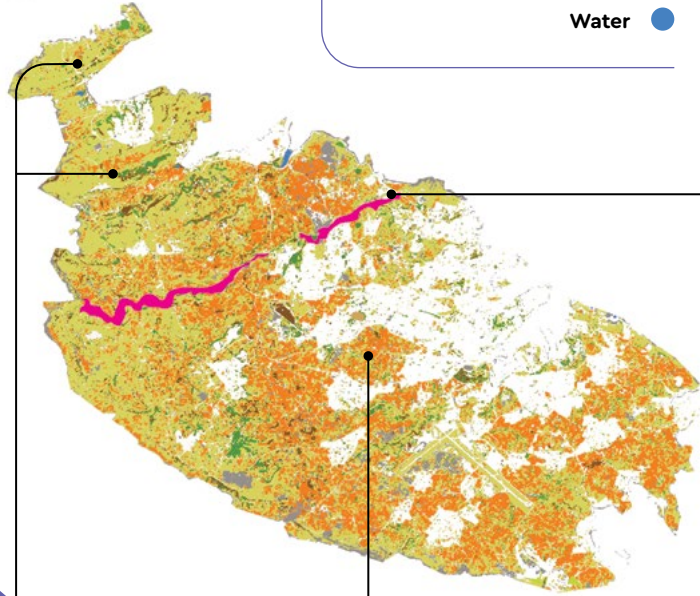
A bite out of Malta

A map of Malta and Gozo, with all built-up areas as classified by the EU's CLC+Backbone imagery database removed.



- Woodland ●
- Low-growing woody plants ●
- Permanent herbaceous ●
- Periodically herbaceous ●
- Non and sparsely vegetated ●
- Water ●

- ▶ **Woodland:** woody needle leaved and broadleaved trees
- ▶ **Low-growing woody plants:** shrubs, bushes and low woody plants
- ▶ **Permanent herbaceous:** areas with a continuous vegetation cover. Can be natural or managed spaces.
- ▶ **Periodically herbaceous:** areas with at least one change between bare soil and vegetation within a year. These are often managed spaces.
- ▶ **Non and sparsely vegetated:** bare rock and very sparse vegetation
- ▶ **Water:** lakes, reservoirs and salt pans



1

A lot of our woodland is really young. For example, both l-Aħrax and Il-Miżieb benefitted from a donation of 10,000 Aleppo pines, olive trees and junipers by the Israeli government in the 1950s.

2

Filfla was used as target practice by the British, one of the least natural activities one can think of. Nowadays, it is out of bounds unless special permission is obtained.

3

This "peninsula" of land between Attard and Zebbug is mostly taken up by fields

4

The fault line which spans the breadth of Malta acts as a natural geographical barrier to further encroachment from Mosta and Naxxar into natural spaces... for now. The Victoria Lines fortifications were built by the British along this fault line.

Malta's built-up area. In Belgium, 11.7% of the land is classed as built-up. In all other EU countries, less than 10% of the land is classed as built-up.

The rest of Malta is taken up by more natural land covers: arable land, woods, shrubs and garigue, grassland, bare land, and water. The map of Malta and Gozo in Chart 1 provides an overview of the country's unique composition. It shows what the islands would look like if the seven land covers were clustered together. Each cluster shows the land cover type and percentage of land it takes up, and offers a brief explanation of what falls under that group.

While artificial land covers 27.5% of the country, it is not the largest grouping. Cropland (farmland, orchards, vineyards, kitchen gardens, and any spaces where crops are cultivated) beats it to the post, with a 28.7% covering. The smallest land cover goes to woodland (a mere 3.9%) and water areas such as reservoirs and nature reserves (1.3%). Have a look at the chart for additional morsels of insight.

IF WE REMOVED 27.5% OF THE LAND CLASSED AS ARTIFICIAL, WHAT WOULD A NATURAL MALTA LOOK LIKE?

In other words, WHERE are Malta and Gozo's natural spaces?

Chart 2 shows another map of Malta and Gozo. All built-up areas (as identified via the EU's CLC&Backbone satellite imagery dataset) have been removed, leaving arable land, grassland, shrubland, bare land, woodland, and water areas.

It looks like something has taken a big bite out of Malta's side. The Grand Harbour area with its long history of economic and cultural significance, has all but disappeared except for tiny pockets of urban nature. These are the gardens, playgrounds, green corners and even the roundabouts with

seasonal flowers scattered among the buildings. They play an important role in bringing nature to humans, even if it is in an indirect or incidental way.

CONCLUSION

If we have all these natural spaces, why do so many of us feel so strongly that Malta is overwhelmingly built up? A 2022 survey by EY found that the vast majority of Gen Zs and millennials believe the state of Malta's environment is getting worse. There seems to be a deep sadness and frustration surrounding the subject: where does it come from?

I'm sure you will have your theories. One key element is connectivity. As explained by Conrad, farms and cropland (which make up 28.7% of land in Malta) can offer animals a very important buffer from the built landscape, allowing them to scamper and get between places. But the same cannot be said of humans: cropland isn't really accessible to us as it is considered private property. There are solutions to this specific challenge. For example, in the UK, the 2000 Countryside and Rights of Way Act allows hikers to walk across designated paths in fields, even if they contain crops and livestock.

Together with the built environment's 27.5% cover, farms and cropland account for 56.2% of our land – that's over half of Malta and Gozo. We have no or limited physical access to nature across more than half of the country. It is no wonder that many of us struggle to develop a deeper bond with nature.

So, do Malta and Gozo have natural spaces left? Yes, but the need to safeguard and protect these spaces is paramount and urgent. You don't need me to tell you that. It's also not just a question of quantity; we also need to safeguard and protect our physical access and emotional connection to nature. The answer is always more nuanced than we would like. 