The Environmental Impact of Tourism in Gozo

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INTRODUCTION

Gozo is marketed as the "island where time stood still" and as a place of "calm and relaxation". Its main attraction lies in its rural character, typical of the Maltese Islands before the advent of mass tourism. Gozo is less urbanized than Malta, has more countryside not given over to agriculture, and, because of its geological and topographical structure, has more water resources and is consequently more verdant than Malta. To these must be added the slow pace of life, the peaceful atmosphere and the friendly people, a significant proportion of whom are still engaged in traditional trades and crafts. It is these which make Gozo an attractive destination for both foreign and local tourists.

Gozo's main asset is thus its environment; it is also its main problem in terms of tourism. Almost by definition, a place of relaxation which exists in a temporal backwater must be remote, visited by few people, and must be insulated from the myriad elements which make modern living stressful. The problem lies in the fact that although the greater the number of tourists, the greater the income generated, the greater also is the degradation of that asset which attracted them in the first place – the environment.

The disease afflicting the Gozitan environment is a familiar one:

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lack of appreciation of its importance and lack of understanding of how it functions; the symptoms are many.

LAND-USE PATTERNS

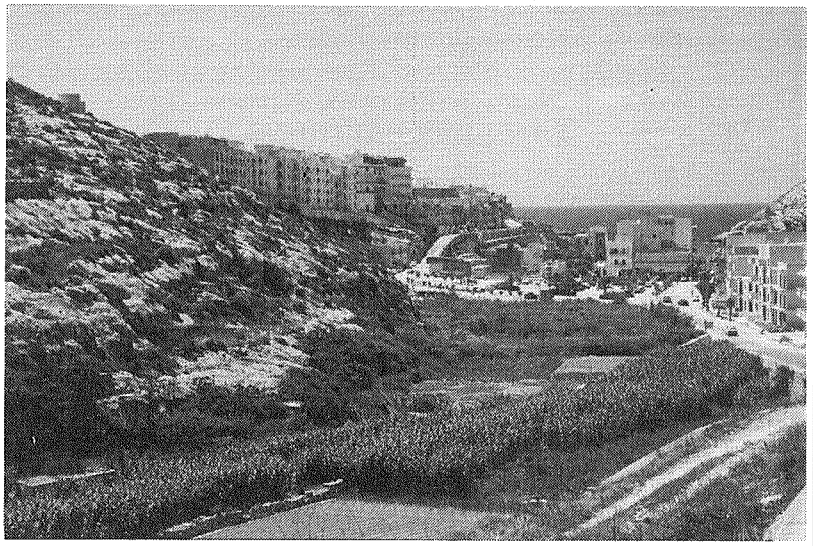
One of the most obvious is a change in land-use patterns, characterised by an increase in the area of built-up land at the expense of agricultural land (Meli, 1993) and wilderness (Schembri and Lanfranco, 1993). This is a result of numerous factors, including an ever-increasing local population, a rising standard of living, and a massive increase in the number of tourists visiting the islands. Coastal areas have suffered more than any other part of the islands due to tourism (Anderson and Schembri, 1989), as the islands have traditionally been marketed for their sunny climate and clean seas.

In Gozo, the effect of this development has been to replace natural landscapes by anthropic ones and agricultural landscapes by urban ones, in the process losing that which is unique to Gozo and substituting it by what is common to any holiday resort in the Mediterranean. Historic town centres and village cores have been invaded by incongruous architectural elements; traditional styles, materials and patterns have been replaced by modern ones, which are often alien to our culture. Buildings obliterate the existing habitat, not only under their footprint, but also in a wider area surrounding the development due to disturbance, dust, dumping, transport of soil and infrastructural works, including access roads.

Development in Gozo has been less intense than in Malta; however, the latter has had an indirect effect on the former as it has driven Maltese residents and entrepreneurs to seek 'greener pastures' in the relatively untouched sister island.

QUARRYING

Quarrying activity has increased to keep pace with the demand for raw material for building. This has a huge impact which is more or



Xlendi, Gozo: touristic development intruding on the natural and rural landscape

less permanent in some cases. Softstone quarrying is less destructive than hardstone quarrying since softstone quarries are often sited in agricultural areas and quarries can potentially be reclaimed back to agriculture once operations cease (Malta Structure Plan, 1991a). Hardstone quarries on the other hand are very destructive in terms of landscape and habitats, since most Coralline Limestone is found in wilderness areas and the original habitat cannot be reinstated, once destroyed. Also, many hardstone quarries are coastal and are irreversibly changing the physiognomy of the coast (for example, on the Northeast coast, close to Qala).

As with built-up areas, the impacts of quarrying are not limited to the quarried area itself but spread beyond it, due to dust, noise and take out of additional land used for dumping of quarry waste and storage of products. Perhaps one of the saddest indirect impacts of quarrying in Gozo is that the quarrying activity in the Qawra/Dwejra area has probably ruined any chances we might once have had to have this unique area accepted as a Natural World Heritage Site in terms of the World Heritage Convention (Schembri, 1991).

POWER AND WATER REQUIREMENTS

The larger the population, the greater its power requirements. Tourism adds to this problem: modern tourists demand heating in winter and air-conditioning in summer. Water is an even more important issue since there are already problems with producing and distributing an adequate supply for the resident population (Malta Structure Plan, 1991b).

Although no studies exist, it is reasonable to assume that the per capita water consumption of the average tourist who comes from countries with an abundant water supply is greater than that of the average Maltese who is conscious of the need for conservation of this valuable resource.

Additionally, an increased demand for water places a heavy demand on the power supply since more than half of domestic water is produced by desalination of sea water using reverse osmosis, which is a power-hungry process (Riolo, 1987; Riolo and Cassar, 1992).

Impacts associated with power generation include atmospheric pollution by gases and particulate matter, and the problem of disposing of coal ash. Gozo does not suffer from the environmental impacts associated with power generation since the Islands' two power stations are both situated in the southern part of the island of Malta; however, Gozo does suffer the inconvenience of unreliable and uneven supply due to deficiencies in the distribution system.

WASTE

Waste generated by the local and tourist population needs to be disposed of. This presents a serious problem as the Maltese Islands lack suitable landfill sites. The only official dump in Gozo (at Il-Qortin tax-Xagħra, limits of Xagħra) has a large environmental impact, especially since it is situated close to two prime tourist areas (Marsalforn Bay to the West and Ramla to the East). Impacts include: the take-out of land, air pollution due to burning rubbish, noxious fumes, pests, as well as the aesthetic aspect.

One solution being explored in Malta – recycling – is a controversial issue in the case of Gozo: the cost of constructing a recycling plant in Gozo is prohibitively expensive at present, while transporting waste to Malta to be processed has met with a lot of resistance from the residents of Marsascala, where the Islands' only recycling plant is situated.

Illicit dumping, especially of building waste, is also prevalent in Gozo. Valleys (for example, Wied Ilma) and the coast (for example, on the northern coast from Pinu Point to Xwieni Bay; Anderson and Schembri, 1989) seem to be those areas to suffer most from this activity. Both are amongst the most important habitats on Gozo, apart from being key features of the landscape.

SEWAGE

Sewage is another problem since it is discharged untreated into the sea. Because of the oligotrophic nature of the sea round the Maltese islands, the impact from nutrients in the sewage is low; however, the same cannot be said for other substances discharged in sewage and for pathogens; in any case, there is the 'image' problem since the main discharge point (at Ras il-Ħobz on the southern coast) is close to an important tourist locality (Mġarr ix-Xini), and no tourist likes to swim in close proximity of a sewage outfall, even if reassured that it is perfectly safe. The solution is to introduce sewage treatment, and a plant for Gozo is in the planning stage (COWIconsult, 1992). Such a plant would have the additional benefit of providing reclaimed water for agriculture and thus putting a stop to the practice which some farmers have of (illegally) rupturing the sewage main in order to irrigate their fields with the sewage which spills out!

DESTRUCTION OF HABITATS

It is the natural environment which has suffered most due to development, mainly through destruction of habitats and disturbance, leading to a decrease in wildlife, both in terms of number of species

as well as population size: some previously common species have now become rare, while others have disappeared entirely or are on the verge of doing so (Schembri and Lanfranco, 1993). Perhaps the most badly affected habitat in the Maltese Islands, and certainly in the case of Gozo, are sand-dunes. Those at Ramla l-Ħamra are the only ones remaining in the Maltese Islands where a more or less complete dune habitat still exists. Even these are now fast degrading due to trampling by people, vehicles, camping, kiosks, and beach cleaning. One species, the Marram Grass (*Ammophila australis*), an important sand-binder, has already become extinct from the Maltese Islands (Lanfranco, 1989), perhaps explaining why a recent violent storm was able to devastate a large part of the remaining dunes at Ramla.

CONCLUSION

Clearly, tourism in Gozo is not sustainable, in the sense that it alters and degrades the environment in which it exists. To attain sustainability, the optimal strategy would be to concentrate on attracting a small number of very high-yield tourists, that is, to make up for reduced quantity by better quality, a suggestion already made by the consultants commissioned to draw up a tourism master-plan for the Maltese Islands (Horwath and Horwath, 1989).

Unfortunately, tourism in Gozo has not developed according to any strategic plan, but rather, as with most things in the Maltese Islands, in a piecemeal manner, driven by the short term aim of making a profit while the going is good, rather than the longer term objective of sustainability.

In the free market economy which operates locally, limiting tourism now and sacrificing quantity for quality, is difficult. To achieve this, requires a strict regulatory regime. All the necessary legislation, and the institutional mechanisms for implementing such a regime now exist in Malta. The principal instruments are the Environment Protection Act, 1991 and the Department for the Protection of the Environment on one hand, and of the Development Planning Act, 1991 and the Planning Authority which it establishes, on the other.

The question is, are we disciplined enough and far sighted enough to submit to such a regulatory regime?

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