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Sustainable tourism in small island jurisdictions with special reference to Malta

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Abstract

■ The paper deals with the delicate balance between the economic benefits and the environmental damage of tourism, with special reference to small island jurisdictions. Most economic activities have a negative impact on the environment and very often such environmental damage has undesirable repercussions on the economy. This is especially so in the case of the tourist industry which depends heavily on environmental services.

The paper discusses the dependence on tourism of small island jurisdictions and assesses the economic and environmental impacts of tourism in Malta. The paper also suggests pre-emptive and corrective measures for the promotion of sustainable tourism. The paper ends on the optimistic note that tourism itself is sharpening our awareness of the evils of environmental degradation, and that this could be conducive towards the adoption of sustainable tourism policies and measures.

Keywords:

sustainable tourism, insular tourism, Malta

Resumen

■ El presente artículo versa sobre el delicado equilibrio entre los beneficios económicos y el daño medioambiental del turismo, con especial referencia a las jurisdicciones de islas pequeñas. La mayoría de actividades económicas tienen un impacto negativo en el ambiente y muy a menudo este daño medioambiental repercute de forma indeseable en la economía. Esto es especialmente cierto en el caso de la industria turística que depende fuertemente de los servicios medioambientales.

El artículo trata de la dependencia del turismo en las jurisdicciones de islas pequeñas y evalúa los impactos medioambiental y económico del turismo en Malta. El artículo asimismo sugiere medidas preventivas y correctoras para la promoción del turismo sostenible. El artículo finaliza con la nota optimista de que el propio turismo está aguzando nuestra conciencia sobre los males de la degradación medioambiental, y esto podría conducir a la adopción de políticas y medidas de turismo sostenible.

Palabras clave:

turismo sostenible, turismo insular, Malta

Introduction

■ Sustainable tourism is often discussed in terms of the balance between economic and environmental concerns (Briguglio et al., 1996). It is well known that many, if not all, economic activities have an impact on the environment and that this has a feedback effect on the economy itself. This is especially so in the case of tourism which utilises the environment as a resource.

In many small island tourist jurisdictions, tourism generates considerable income and employment, but at the same time it causes environmental degradation. This paper will present many examples of this reality.

The paper is divided in six sections. Section 2, which follows this introduction, briefly discusses the dependence on tourism of small island jurisdictions. Section 3 assesses the economic impact of tourism on the economy of the Maltese Islands, while Section 4 deals with environmental impact of tourism on the same Islands. Some pre-emptive and corrective measures for the promotion of sustainable tourism are suggested in section 5. Section 6 concludes the paper on the optimistic note that tourism itself is sharpening our awareness of the evils of environmental degradation, and that this could be conducive towards the adoption of sustainable tourism policies and measures.

Small islands states and tourism

The Economic Benefits of Tourism

■ Small island jurisdictions tend to find it very difficult to compete international in the production of manufactured products and agriculture, mostly due to their limited ability to reap the benefits of economies of scale. This is not the case in tourism, in which many small island jurisdictions enjoy a competitive advantage due to their natural attractions, such as a pleasant climate, sandy beaches and an exotic image. As a result, many small island jurisdictions depend heavily on tourism for their economic development (McElroy, 2003, Ellul, 1999; McElroy and Olazarri, 1997; Liu and Jenkins, 1996).

Many governments of such jurisdictions attempt to maximise their island's tourism potential through public sector investment or the encouragement of private enterprise, this often leading to the "development" of the coastal areas, enhanced air and sea links with other countries and expensive publicity campaigns.

The economic benefits

■ The relatively high dependence of small island jurisdictions on tourism means, among other things, that a large proportion of employment occurs in the tourist industry or in tourism-related activities. It is not always possible to give precise estimates of such employment because it does not occur solely in activities usually associated with tourism, such as hotels, restaurants, airports, seaports, transport, travel agencies, souvenir shops and restaurants, but also in agriculture, fishing, banking, printing, and other activities with which the tourists do not come directly in contact, including sections of the public sector.

Tourism is also thought to have a relatively large multiplier effect (see Archer, 1982; Briguglio, 1992) due to the fact that its import content is relatively small compared, for example, to merchandise, given that it has a large services

content and also because of its relatively large interindustry linkages.

Tourism is also economically important because it is a source of foreign exchange. Many small island jurisdictions would register large balance of payments deficits in the absence of proceeds from tourism.

There are also a number of indirect advantages associated with tourism which have an impact on the material wellbeing of the local population of many small island jurisdictions. These include a renewed interest in local arts and crafts, improvements in educational, leisure, communication, medical and other facilities in the host countries, a general awareness of the natural and man-made aesthetic assets, and a broadening in the outlook of the islanders.

Undesirable economic effects

■ Tourism in such jurisdictions, however, tends to usher in a number of undesirable economic effects.

Tourists exert demand on the public infrastructure, such as roads, water and electricity, for which they are not normally charged. In addition, the governments of host countries often undertake relatively large advertising expenditures. If tourists' expenditure is netted out so as to take on board the economic price that the host country pays to attract tourists, the economic contribution of tourism would be much smaller than that usually reported.

In addition, inward tourist traffic is often determined by foreign-owned tour operators who often have enough bargaining power to dictate tourism matters, including prices, in the host countries. Also larger-scale tourist establishments in small island jurisdictions tend to be

foreign-owned, and this leads to incomes flowing out of the host country.

A related problem is that tourism as an industry depends on the whims and fancies of foreign travellers, whose decision to visit a particular island are influenced to a very large extent by conditions outside the control of the island itself; these include economic conditions in their country of origin and reports in the popular press about island destinations.

Other economic pitfalls often associated with tourism in any country, but which are especially significant in small islands due to their relative large dependence on this form of economic activity; include pronounced seasonal unemployment and rapid increases in the price of land, often accompanied by land speculation.

The environmental impacts

■ In the absence of tourism, small island jurisdictions would still have faced environmental problems associated with their geographical and natural characteristics. They tend to have unique and fragile ecosystems. Economic development in many such islands has led to a rapid loss of biodiversity. The rich endemicity of species in many

small island jurisdictions, an outcome of their insularity, frequently renders their contribution to global biodiversity proportionately larger in comparison to their size.

Islands also have a relatively large coastal zone in relation to the landmass. Thus, a relatively large proportion of land is exposed to forces that lead to coastal erosion. Also, many such islands are located in areas, affected by extreme events such as cyclones. A number of low-lying small islands are also very vulnerable to climate change and sea-level rise.

Many of these environmental impacts are of course exacerbated by tourism. International communications, for example, are required even in the absence of tourism, but the increased traffic caused by tourism places severe strains on many islands. Airports and seaports in islands take up very large areas in proportion to the total space available, posing increased land-use pressure, as well as air and sea pollution. In the case of air traffic, flying craft also contribute considerably to noise pollution, often affecting practically the whole population of small islands.

The large amount of waste generated by tourist-related activity gives rise to major waste management problems, leading to health hazards (including habitats for rats and other vermin, and toxic substances seeping through aquifers) and reducing the aesthetic qualities of the place.

Of particular importance in the case of small island jurisdictions is the fact that tourism is generally of a coastal nature. Many charming fishing villages in small islands have been transformed into tourist playgrounds, many mangrove swamps and wetlands have been destroyed, many beautiful beaches have been polluted by sewage emissions, and many coastal areas are subjected to noise and fuel pollution from seacraft.

Tourism may also cause inland problems. For example, in islands where eco-tourism is being promoted (as is the case in Dominica), distances are so short that ecologically important areas are also easily accessible to tourists who may not have a special interest in ecological matters. As a result tourists, sometimes unknowingly, may damage delicate vegetation and their presence may threaten rare species. In islands where cultural tourism is promoted, as is the case in Malta, considerable damage is caused to historical places through frequent tourist visitations.

Another problem faced by small island jurisdictions is related to population density and carrying capacity. Many islands experience high tourism densities in relation to their population and land area. The concept of carrying capacity is very important in this regard, since small islands tend to very quickly reach that threshold level beyond which the natural ecosystem will be irreversible damaged (McElroy and de Albuquerque, 1998: 164).

Can tourism help the environment?

■ The adverse environmental affects just described are to an extent mitigated by some positive ones, as there are instances where tourism can actually be conducive towards the protection of the environment. One reason for this is that tourism tends to create an awareness that the country needs to be attractive, that the air needs to be clean and that the sea needs to be unpolluted. In the case of many small island jurisdictions campaigns for protecting biodiversity and keeping the island clean are often based on the need to keep the place attractive for tourism.

Also, on a policy level, the dependence on tourism often forces the authorities of the islands to take a more serious view of planning, monitoring and market-based incentives, precisely because in the absence of such measures, the negative effects of tourism on the environment could, in the long run, destroy tourism itself.

The balance

■ Such benefits and downsides of tourism are, of course, not present in equal doses in all small island jurisdictions, since different islands have different characteristics. Some are more isolated and more remote than others,

some are smaller than others and some are more environmentally fragile than others.

The next two sections will describe the specific experiences of a small island developing state, namely Malta.

Profile of tourists visiting Malta

■ Malta is a small Mediterranean island with a population of just over 400,000 and a land area of 316 square kilometres. This means that the population density is around 1280 persons per square kilometre. The Maltese GDP at factor cost amounted to approximately US\$5.5 billion in 2006. In recent years, about 20 per cent of the Maltese GDP was contributed by the manufacturing sector, about 52 per cent by market services and 20 per cent by the public sector. The agriculture, fishing, construction and quarrying sectors, taken together, contributed around 8 per cent of GDP. The unemployment rate in Malta in recent years averaged about 5.5 per cent.

Tourism flows and earnings

■ In 2006, the number of visitors to Malta amounted to 1,532,279 of whom about 73 per cent were stay-over tourists and the remaining 27 per cent cruise passengers. The number of incoming tourists increased rapidly between 1960 and 1980. There was a relatively large decrease

in tourist inflows between 1980 and 1985, as can be seen in Table 1, but the numbers picked up rapidly again during the last half of the Eighties and throughout the Nineties. Incoming tourism slowed down during the 2000-2006 period.

Table 1. Tourism inflows and earnings

	Stay-over Tourists			\mathcal{C}	r · ·
Year	Number	Average nights stayed	Total nights stayed by tourists	Cruise Passengers	Earnings from Tourist Lm Milion
1960	19689	Na	Na	8676	1.0
1965	47804	Na	Na	16937	1.9
1970	170853	14.2	2431000	64998	9.8
1975	332850	13.9	4633339	49219	28.1
1980	725580	13.2	9587650	60196	111.9
1985	517274	12.2	6303494	43650	69.8
1990	877169	10.9	9603532	56624	157.4
1995	1115809	9.8	10918723	77216	232.8
1996	1063594	10	10665253	69240	228.9
1997	1122650	9.7	10938986	126645	249.8
1998	1198133	9.5	11325611	144064	254.6
1999	1230126	9.5	11658245	187838	271.4
2000	1215713	8.4	10266188	171371	268.2
2001	1180755	9.4	11066813	265431	260.7
2002	1132277	9.4	10599206	349046	245.7
2003	1118236	10.1	11293223	389477	261.5
2004	1157681	9.7	11174601	291821	269.1
2005	1170610	9.5	11085801	320306	262.3
2006	1124233	9.5	10656459	408046	260.6

Source: Data for number of tourists and cruise passengers is obtained from *Tourism Statistics* (various years) published by the National Statistics Office. Data for earnings is obtained from *Balance of Payments Statistics* (various years) also published by the National Statistics Office

Earnings from tourism averaged about Lm260 million annually (about US\$800 million at 2006 exchange rates) during the period 2001 to 2006, as shown in Table 1. This however excludes transportation and package tours. If these are included the amount spent by tourists would be in the region of Lm421 million (about US\$1.3 billion) during the same period. The contribution of tourism to GDP is estimated to be about 15 per cent between 2000 and 2001. It should be noted here that there is no official

figure for the contribution of tourism to the Maltese GDP. The 15 per cent contribution was calculated by the present author, basing on tourism expenditure (travel and transport) net of imports. Some Malta Tourism Authority publications, including Mangion (1999), estimate that the contribution of tourism to GDP is in the region of 24 per cent. The present author is of the opinion that the MTA figures overstate the importance of tourism.

Tourism densities

■ Tourist densities in Malta are very high. In the past six years, the total annual number of tourists amounted to almost three times as much as the resident population, which can be roughly translated into about 8 per cent of the resident population, given that on average, each

tourist stayed in Malta for about 9.6 nights. As expected, such a high density exerts heavy pressure on the environment and infrastructure of the Islands, where the resident population density is already extremely high, as already explained.

Nationality and social background

■ In 2006, about 38 per cent of tourists originated from the United Kingdom, which is the most important tourist market for Malta. The second largest market is Germany, which contributed some 11 per cent of tourists to Malta in recent years. Italy, France, North Africa and the Netherlands are also major markets for tourism to Malta. Between 1995 and 2006 there was a tendency for the percentage of British tourists to decrease.

Malta is not among the cheaper destination in the Mediterranean. Prices advertised on brochures of major tour operators offering package holidays to Malta are on the expensive side when compared to similar package tours to Spain and Greece. A study comparing cost of tourist packages to Malta, carried out by Briguglio and Vella (1995), found similar results for the first half of the nineties. For this reason, one would not expect a very large percentage of incoming tourists to be low-income earners. This is confirmed by MTA survey results for the British market which indicate that a large proportion of summer tourists in 2006 were managers, directors or belong to the professions (see Malta Tourism Authority,

Seasonal pattern

■ Tourism in Malta is very seasonal, with the majority of incoming tourists arriving in the May to October period. In 2006, about 66 per cent of tourists arrived during these months; 44 per cent arrived during the shoulder months and 37 per cent during the summer

months (July to September). The remaining 19 per cent arrived during the November to February period (the winter months). This, of course, means that the problem of tourist densities is exacerbated in the summer months.

Average duration of stay

■ The average length of stay per tourist tended to decrease from about 9.8 nights in 1995 to about 9.5 nights in 2006. It was close to 14 nights during the Seventies and decreased to about 12 nights during the Eighties, as shown in Table 1. The overall average length of stay conceals considerable differences among the different categories of tourists. Tourists staying in 3-star hotels and tourist villages tend to stay longer than those staying in other hotel categories. The shortest stays pertain to tourists in 5-star hotels.

Motives for visiting Malta

■ In the tourism profile surveys carried out by the Malta Tourism Authority (Malta Tourism Authority, 2007) tourists identify the agreeable climate as the primary motive for visiting Malta. Although Malta is rich in history and culture, these assets are not really major motivators, although they add to Malta's appeal. The use of English as well as the hospitality and friendliness of the Maltese people are also given high scores. Many visitors to Malta may be considered as quasi-tourists. These include two relatively large categories, namely English-language learners and "retirement" migrants. In recent years, Malta has become a very attractive destination for Englishlanguage learning. The English language is widely spoken in Malta and the many language schools provide services for over 60,000 students. Many foreign citizens, particularly British ones, spend part of the year in Malta. These two categories of quasi-tourists have the advantage of often being off-peak visitors.

Tourism economic and environmental impacts in Malta

The impact on the Maltese economy

■ The direct contribution of tourism to the economy can be measured in terms of its contributions to GDP, to the balance of payments and to gainful employment. As already stated, in recent years, tourist expenditure directly contributed around 15 per cent of the Maltese Gross Domestic Product and 25 per cent of foreign exchange inflows from exports of goods and services. Multiplier analysis related to Maltese incoming tourism would seem to indicate that tourism expenditure tends to have a higher multiplier effect than the bulk of merchandise exports, since the value added content of production associated with tourism tends to be relatively high (Briguglio, 1992, Mangion, 1999). Tourism also contributed to the domestic economy through international transportation, since a considerable number of incoming tourists use the national carrier, Air Malta, in scheduled flights and charter hire. In addition, incoming tourists generate income for Malta International Airport.

There are no published statistics on the total contribution of tourism to gainful employment in Malta. As already stated, it is not an easy task to measure this contribution, since tourist expenditure generates employment in almost all economic sectors. The figures usually given

for employment generated by tourists in Malta relate to hotels and catering establishments, which are assumed to be mostly geared to international tourism. As at end 2006, about 8,750 full-time workers and another 8,300 part-time workers were employed in hotels and restaurants. This is equivalent to about 9 per cent of the total gainfully occupied population. This, of course, does not represent the entire employment generated by

international tourism. A portion of employment in other sectors of the economy (such as banks and retail outlets) also serves tourists' needs. A "guestimate" of the total employment generated by international tourism is about 21,000, assuming that employment generated by tourism as a ratio of total employment is 15 per cent, reflecting the contribution of tourist expenditure (including transport) to GDP.

The impact of tourism on the Maltese environment

■ Although, as argued above, environmental problems in small islands should not be exclusively blamed on tourism, it cannot be denied that tourism development

does pose a major problem in this regard. This section lists the most important areas where, in Malta, the environmental impact of tourism is most conspicuous.

Increase in demand for building

■ Building of tourist accommodation, notably hotels and blocks of flats, has increased at a very rapid rate as a result of intensive tourism development in certain areas. The St. Paul's Bay area and the Sliema/St. Julians area have been completely transformed by such development.

Other negative outcomes of this development include the intense noise arising from construction activity, the vast amount of waste material and dust from demolished structures and from excavations. Newly developed tourist structures, sometimes forming a whole village, have also obliterated habitats in the Maltese countryside.

Additional negative tourism impacts are associated with aesthetics, especially where new high-rise concrete structures have replaced beautiful traditional Maltese houses. Moreover, since limestone is used extensively in building, ancillary activities in quarrying have given rise to unsightly scars in many parts of the Maltese islands, besides causing considerable environmental damage to natural habitats and water tables.

Increased waste management problems

■ The sewage network in Malta is very heavily utilised by local residents alone. The relatively large number of tourists intensifies this problem. One outcome of this reality is that, in recent years, a number of popular bays were closed for swimming due to sewage pollution. This has caused considerable discomfort associated with foul smells and inability to swim in the bays, and, perhaps more importantly, has damaged marine and coastal life and induced an accumulation of toxic substances in marine organisms. This problem will soon, however, be practically solved due to the construction of sewage treatment plants, set to be completed by late 2008. However, constructing and running the plants is still a very expensive exercise. No serious study has been carried out to estimate how much liquid waste is generated by tourists, but one can presume that 8 per cent annual resident equivalent could produce 8 per cent of the annual liquid waste, and possibly more, due to the fact that tourists are likely to use bathrooms and sanitary facilities more often than the locals.

The generation of construction and household waste by the resident population is also a major problem in Malta due to the very high population density, and tourism tends to accentuate it. Up to 2005, a huge waste disposal area, called Maghtab, became a very visible mound within a short distance of tourist and residential centres. Again here, no serious study has been carried out to estimate how much waste was generated by tourists, but an 8 per cent annual increase in construction and household waste would be a plausible assumption.

In addition, tourism tends to increase the use of environmentally dangerous products, such as plastic containers and emissions of toxic gases from cars, power stations, and barbecue grills. Added to this, there are other sources of harmful waste, which occur as a result of traffic congestion, incoming aeroplanes and cruise ships and air-conditioning units. Again here it should be said that the main culprits in this regard are local residents, but tourism intensifies the generation of harmful waste.

Destruction of habitats

■ Tourism has intensified the demand for transport, accommodation and beach use. This has led to increased destruction of habitats (especially beach habitats). Habitat destruction is however

not confined to coastal tourism. High visitation rates to archaeological and historical sites tend to have a negative impact on these sites, especially on the fragile archaeological one.

Is tourism the worst culprit?

■ A note on the environmental impact of non-tourism economic activities is in order here. Although tourism is often associated with environmental degradation, it should be kept in mind that non-tourism activities also have major negative impacts on the environment and, therefore, the fact that tourism harms the environment should not be considered as a case for alternative forms of economic development. In Malta, for example, the manufacturing industry, with its reliance on fuel for machinery and its high rate of water consumption, may at times be more environmentally unfriendly than tourism. The agriculture sector, with its reliance on pesticides and fertilizers, also brings about irreversible environmental damage to habitats and human health. The construction sector is also very harmful to the environment and to human health. To be sure, no economic activity is environmentally neutral, and tourism is not always the worst culprit in this regard.

Some environmental benefits of tourism in Malta

■ Although tourism has many negative environmental impacts, and the list presented above is by no means exhaustive, it also has a number of positive environmental effects.

Tourism has increased environmental awareness among the Maltese population. Factors such as waste management, clean bathing waters, coastal zone management and well-planned land use works in favour of tourism and, as a result, the need to attract tourists has led the resident population to assign more importance to environmental protection than would have been the case in the absence of tourism.

Other benefits of tourism

■ Tourism may have been an important factor in the revival of certain traditional arts and crafts such as lace-making, filigree work and pottery. Demand by tourists for these products has rendered their production economically viable. Malta is renowned for its wealth of historical and archaeological heritage, which, before the advent of large-scale tourism, were probably not appreciated enough. The places of cultural importance are, even now, more valued by tourists than by the locals. However awareness of cultural heritage among the Maltese population has increased as a result of tourism.

Pre-emptive and corrective measures

■ As already explained, in Malta, the economic contribution of tourism is relatively large and the authorities would like to see it grow, even though it is known that such activity has major negative environmental impacts. The economic benefits derived by Malta from tourism are formidable and the issue here does not therefore relate as to whether or not Malta should continue to derive income and generate employment from tourism, but rather how best to reduce the environmental and social harm caused by this type of economic activity. The remedies often suggested in this regard relate to the development of alternative forms of tourism or through certain pre-emptive and corrective

"Alternative" tourism

■ Similar to many other small island jurisdictions, the Maltese tourism authorities and the operators in the industry attempt to attract as many tourists as possible, no matter how much pressure is exerted on the infrastructure and the environment. Admittedly, there is considerable talk about carrying capacity constraints (MTA, 2002; Mangion, 2001), but the tourism authorities generally measure success in terms of the number of tourists arriving in Malta. The chances are, however, that the structure of tourist inflows will not change drastically in the foreseeable future, due mostly to the economic benefits of "mainstream" tourism, defined here as coastal tourism seeking sun, sea and sand destinations.

The question arises here as to whether or not small islands like Malta could reduce their dependence on mass or "mainstream" tourism and instead foster alternatives, such as cultural tourism, eco-tourism, retirement tourism, health tourism and so on.

In general, what is termed "alternative" tourism is often very small scale, and not sufficiently financially rewarding on its own. In the case of Malta, for example, there would seem to be a very attractive case for promoting cultural tourism given that the islands have a rich historical and archaeological heritage. However, relying on this form of tourism alone is unlikely to be viable. Most tourists who come to Malta state categorically in the various surveys on Maltese tourism that they visit the Islands mostly because of its Mediterranean climate, and its sea and sun (Ashworth and Tunbridge, 2003).

Also, Malta's Mediterranean location to an extent conditions the type of its tourist inflows. In all tourist brochures, Malta is 'sold' as a sea-and-sun destination, with the cultural heritage as an added bonus. Malta's climatic endowments sell and, as is well known, these attractions appeal mostly to what one may call "mainstream" tourists.

Another factor which may not permit drastic diversification towards "alternative" tourism relates to the existing structures of hotel and tourist facilities, which are geared mostly to "mainstream" tourism. It will not make much sense for the authorities to force the existing hotels, which operate on the basis of the profit motive, to operate at very low occupancy rates.

In general, measures that reduce tourism inflows are likely to have a negative impact on the economy, given that from each tourist there is at least a net contribution to the Islands' GDP and gainful employment. Eventually, there will be a slowing down of the rate of increase of

tourist inflows in Malta, but this will probably not be the result of a pre-determined government policy, but rather an outcome of the constraints arising from the carrying capacity of the Islands.

One is tempted to conclude therefore that, at least in the case of Malta reliance on "alternative" forms of tourism is viable only if these supplement traditional "mainstream" tourism.

These realities by no means contradict the argument that mainstream tourism is associated with certain environmental dangers and negative social impacts. The thrust of the argument here is that, given the attraction of "mainstream" tourism on economic grounds, pre-emptive and corrective measures to reduce its negative impacts may be more meaningful and operationally useful than policies to reduce the inflows.

Self-regulation and labelling

■ Self-regulation can be advocated as a means of reducing the negative environmental impact of tourism. As has been pointed out earlier, it is in the interests of the tourism industry itself to protect the environment. Moreover, in some cases, firms can make substantial financial savings by promoting good environmental practices such as for example, laundering of linen on request only, and time-switching of electric lighting and air conditioners.

Self-regulation and voluntary action can be stimulated through what are known as Eco-labels, which are recognised, credible certification schemes. In the case of tourism these are often employed for accommodation services and are aimed at rewarding accommodations with good envi-

ronmental performance. This also helps environmentally-minded tourists to choose their accommodation, as hotels and guesthouses that display the eco-label logo would signal their environmental friendliness (Hamele, 2002).

Yet past experience in Malta has shown that self-regulation alone may not be sufficient to ensure adequate environmental protection. This is especially so for hotel operators who pursue short-term gains. It would be wishful thinking to expect, for example, that such operators would not erect structures on beaches if no control by the authorities were in place. There exists a case, therefore, for government intervention of various forms, ranging from planning and monitoring to direct control.

Government intervention: Legal controls and planning

■ In a small island state where land is one of the scarcest commodities, legal constraints as to land use are indispensable. In Malta, such constraints have, in recent years, been placed within the framework of the national Structure Plan and a series of local plans, with the aim of regulating development. Although the legally binding Structure Plan is not site specific, it recognises the severe land-use competition in the Maltese Islands but also suggests proactive measures for the enhancement of the environment, as well as other measures to ensure

efficient use of resources and a better quality of life in the Islands.

Inevitably, tourism-related developments feature prominently in the Structure Plan. Before the introduction of the Plan, haphazard tourism development was the order of the day. There is now a general consensus in Malta that planning of tourism structures is essential, primarily because of the growing concern about their impact on the environment.

Impact assessments

■ Planning generally involves direction-setting on the basis of overarching policies. In the case of land use more specific measures involving a project-by-project assessment, are required. It may be necessary to examine certain individual project proposals before their commencement, in order to reduce the chances of conflict

between an individual project and the Plan's overall objectives. Environmental and social impact assessments are generally undertaken for this purpose. Such assessments contain a description of the potential direct, indirect and induced effects on the environment and on society at large.

The exercise is often accompanied by suggestions as to how the adverse environmental and social effects can be mitigated. The negative impact should of course be compared to the positive economic impact – an exercise which requires the participation of expertise from different fields, including the physical sciences and economics. These types of assessments are especially important for projects associated with tourism, where an array of considerations is involved other than economic benefits, including land use, protection of the environment, transport planning, and social impacts.

In Malta, environmental impact assessments are required by law for projects that are likely to have a "substantial" impact on the environment (see Planning Authority, 1994). Since the coming into effect of this requirement, there has been a slowing down of developments which harm the environment. This requirement, however, has also given rise to what has been described as unacceptable bureaucratic delays, and there is a feeling of dissatisfaction among developers whose proposals are trapped in an overly long waiting list.

Setting standards and monitoring

■ Many environmental problems arising from tourism are associated with the absence of standards and effective monitoring. Certain activities need to be controlled and monitored on an ongoing basis, either because they cause damage due to certain unforeseen circumstances, or because, with improved knowledge, the requirements of environmental protection may become more stringent over time.

Monitoring implies setting quality and quantity standards and codes of good practice in the first place. In the case of tourism this could include, for example, levels of permitted tourist capacity in certain beaches, maximum levels of pollution (arising from waste, fuel and noise), and so on. The monitoring exercise would then involve assessing the degree of compliance with these standards and codes by the industry itself within a self-regulatory regime or by the public authorities in a command and control framework.

Such standards have their downside, as they can create rigidity when circumstances change; a certain degree of flexibility, according to environmental and other circumstances should therefore be allowed. For instance, standards can be varied as waste disposal becomes more efficient, or as public transport becomes more commonly used and can effectively replace hired private transport.

The legal and institutional set-up in Malta is sufficiently developed to enable the Government to set standards and back them by legal measures. Unfortunately, certain standards are difficult to enforce, either because of lack of inspectorate or policing personnel or due to non-availability of technical tools for proper assessment and monitoring. There may also be lack of will to enforce certain standards due to the negative impacts on business or to possible loss of votes to the party in government. In Malta, enforcement problems are now probably the main reason why environmental degradation still takes place at an unacceptable level.

Economic instruments: Internalising costs

■ Given that legislation is not always effective, especially because it requires a well-developed enforcement apparatus, and self-regulation is not forthcoming from the private sector, economic instruments may need to be put in place to allow the market itself to reduce environmental damage. Instruments such as taxes, fees and subsidies can be used to actually alter prices in order to cover also environmental costs. Unfortunately, such instruments are not commonly used in Malta with regard to tourism.

The most important advantage of these methods is that they provide an incentive for the tourism operators to economise on environmentally damaging activities in ways that ensure an efficient allocation of environmental resources, hence promoting their sustainable use. Such methods also provide an incentive for the development of technological improvements to limit pollution activities. Charges also represent a source of revenue which can subsequently be used to offset subsidies for environmentally beneficial activities or to manage environmental resources.

Finally, such instruments foster the awareness that pollution and environmental services do come at a cost, even if this is not usually demonstrated in terms of market prices.

Spreading the Impact

■ One of the problems associated with tourism inflows in a small island is that such inflows tend to be concentrated in some locations and in some months. In the Maltese Islands such concentration is very pronounced and poses serious threats to the environment. This suggests that if the impact could be spread, the carrying capacity of the Islands would be less taxed and subsequently the environment less threatened. This argument, however, has its weakness since the negative impacts of tourism would then extend to areas which are as yet unspoilt and the host community would not have a "quiet" season.

Conclusions

■ This paper has described the most important economic and environmental impacts on small island jurisdictions, and Malta was used as an example. It was shown that the economic benefits of tourism are often very large in such jurisdictions. It has also been argued that the negative impacts on the environment in these same jurisdictions tend also to be relatively large, mostly due to low carrying capacities and high population densities. The objective of sustainable tourism is therefore not very easy to attain, and it often involves walking on a very tight rope.

The paper has argued that a policy of reducing tourist inflows would not find much support – except perhaps among those very keen on environmental protection – in an island where a large proportion of national income, foreign exchange inflows and employment is generated from tourism and tourism-related activities, and where tourism growth has been instrumental in securing a respectable level of material welfare for the citizens, albeit accompanied by considerable environmental damage was caused. It was therefore suggested that there is the need to find ways of minimising environmental damage without compromising the current and future economic well-being of the host country.

A few pre-emptive and corrective methods towards this end have been described, although it was shown that their success cannot be guaranteed. Voluntary self-regulation, planning, carrying out impact assessments, setting and monitoring standards and internalising environmental costs are likely to halt the pace of environmental damage.

Like all other economic activities, tourism will never be environmentally neutral. Hotels will always emit sewerage, tourists will always add to the space constraints in islands where space is very scarce, air, land and sea-based traffic will continue to pollute the air with fumes and noise.

Fortunately, tourism, being natural resource based, has quickly made the host island more appreciative of the benefits that are offered by the environment. In addition, as goods, such as clean air, clear seas and quiet spaces, previously abundant and free, become scarce, people tend to become more and more aware that environmental degradation is a great loss, not only in terms of long term or sustainable development, but also in terms of current well-being.

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