

Progress Report on the Integrated Management of Specially Protected Coastal Areas in Malta (Subject Sites: Ghajn Tuffieha, Malta: Ir-Ramla, Gozo) LIFE Project TCY 99/M/95

For the period August, 2000 – January, 2001.

**Prepared by The Gaia Foundation.
February, 2001.**

Introduction

The first 6 months of the LIFE Project, up to July, 2000 saw an expansion in the infrastructure of the Gaia Foundation, acting as the implementation agency of the project, in order to increase the capacity building for the best implementation. The second 6 month period, up to January, 2001, has seen a development of the various activities connected with the integrated management to the point where it has been deemed expedient and necessary, for better strategic management as well as for information and awareness purposes, to classify each activity into specific sectors. Each sector, being a sub project of the overall management, has been given its own name. The overall project, that carries the technical name “The integrated management of specially protected coastal areas in Malta” is referred to in brief as “Project Gaia”. The sub projects reflecting the different sectors bear names relating to the nature of the activity in question, and run as follows:

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| 1. Project Apollo | Visit centres on site to enhance information and awareness. Any infrastructural works required would be financed from sources other than the LIFE Project. |
| 2. Project Athene | Agroforestry, with emphasis on the encouragement of olive growth |
| 3. Project Dionysius | Beach Management |
| 4. Project Elysium | Biodiversity |
| 5. Project Galatea | Management and restoration of cultural sites, financed from sources outside the LIFE project |
| 6. Hermes | General Dissemination Information and Awareness |
| 7. Odysseus | Nature trails and activities to enhance eco tourism |
| 8. Olympus | Coastal Conservation |
| 9. Pegasus | Aerial Surveys and Monitoring |
| 10 Persephone | Sustainable Agriculture |
| 11 Phoenix | Waste Management |
| 12 Poseidon | Marine Conservation |

As the foundations are laid for each project that forms part of the integrated coastal zone management, the Gaia Foundation will work to make each one sustain itself financially in the long term. This is one of the principles and aims of the LIFE programme to ensure continuity and growth of environmental projects. For this to be possible, however, it is also essential that public agencies understand and accept the principle which would eventually reduce their own financial burden in a growing coastal area management programme. This principle does not run counter to NGO status, but actually augments it.

On the 28th December, 2000 a management agreement was signed between the Environment Protection Department (EPD) and the Gaia Foundation, as Manager, for the management of ir-Ramla and environs. Just under 50% of the Department's financial contribution for this site for the LIFE Project period was paid. A draft management plan for the site was submitted upon the contract by the Gaia Foundation. This is to be approved by the EPD within 6 months. The management plan however also covers an interim plan dealing with first intervention measures required to halt the human activities that mostly threaten the site.

The Manager is working with the liaison officer of the EPD to obtain the immediate approval for the interim plan/first intervention measures.

As part of the consultation process the Manager has conducted meetings with the Xaghra and Nadur Local Councils, the Planning Authority team for the Gozo local plan and representatives of the EPD, in order to discuss the management plan and cooperation between the agencies. A copy of a report on some of these meetings is attached and marked document A

Project Olympus – Coastal Conservation

This is one of the most essential aspects of coastal management.

Problems (Framework):

1. Soil erosion
2. depletion of sand dunes
3. mudslides
4. degradation of flora and habitats

Causes:

Primary:

1. Offroading
2. Camping
3. Vandalism
4. Removal and theft of sand
5. theft of conservation support equipment
6. illegal development
7. Bushfires

Secondary:

1. Insufficient regulations through eg lack of conservation orders
2. Insufficient enforcement
3. land ownership

Comments:

There has been no evidence of mudslides and very little evidence of soil erosion at the subject sites in this period. Offroading has been largely controlled at Ghajn Tuffieha, although scrambles remain an occasional problem, mostly on weekends. Vegetation has been allowed to recover, thus reducing degradation. However the exceptionally low level of precipitation this year, which reached just under 250 mm between 1st September and 31st January, and the absence of storms would also account for this trend. Camping has been controlled, while theft and vandalism remain a problem, the latter being generally directed to equipment rather than natural resources. Such activities are usually nocturnal. Replacement of equipment, calculated at between Lm200 and Lm300 per year is more financially justified than the commissioning of around the clock night security on the subject sites.

Theft of sand is no longer an issue at Ghajn Tuffieha, but according to information obtained from some locals, remains so at ir-Ramla. Greater monitoring is essential in order to prevent such abuse.

Action

Site patrols have been maintained at Ghajn Tuffieha. The Services of the Police Department have been commissioned on weekends. This has had a very positive effect on enforcement and monitoring. In the month of August two persons were apprehended and interrogated by a police plain clothes officer, assisted by the Foundation, in connection with a bushfire along the clay slopes. The persons admitted to having started two fires but claimed that they were accidentally caused by discarded cigarette ends. Signs declaring the area a fire hazard zone were in place at the time. The Foundation agreed not to press charges while the persons agreed to cover the expenses for the rehabilitation of the area covered by fire. They also agreed to perform a full day community work on site cleaning out another degraded area.

Another bushfire took place in September when a bird trapper occupying a neighbouring field set fire to it to make a clearing when a strong South easterly wind was blowing. Some 10 olive trees planted in the spring were destroyed. A report was made to the Police, but yielded no results.

Illegal development.

In September an illegal wall enclosing a pill box situated by the Ghajn Tuffieha Tower was demolished by the Planning Authority after 3 years of legal proceedings that saw the occupier appeal against an enforcement notice to demolish the wall. The appeal was lost in April, 2000. The PA demolition squad also removed half a truckload of rubble waste that was illegally dumped on site by the owners of the Golden Sands Co. Ltd. Taken from the derelict Riviera Martinique Hotel. Such illegal dumping had been reported to the Mosta Police, and the Manager called upon the Hotel owners to have it removed, but to no avail.

Problems (details):

The Riviera Martinique remains a dangerous structure. The police case instituted to demand its demolition is still pending.

At Ramla in January a rubble wall situated on a border of a field close to the Belancourt Battery was, on the initiative of the farmer who occupies the land, which is public property, Demolished by persons from the works division. A new and higher wall was being

constructed of limestone blocks. The Planning Authority was immediately alerted and works were stopped following a stop notice. Discussions have taken place between the Manager and the farmer, who has stated that he has no objection to a rubble wall being reconstructed in place of the old one. This should be taken in hand by the farmer's architect and the works division.

Insufficient regulations:

As detailed in previous reports the introduction of site specific regulations, through the establishment of conservation orders by the Planning Authority (PA) is indispensable to the best and most effective management of the site and to enforcement. Despite scheduling of Ghajn Tuffieha in 1995, no conservation order has been published. The same applies for ir-Ramla, which was declared a rural conservation area in 1996. Although the management of these sites and the Life project are not dependent upon such conservation orders, clear and reasonable target dates should be set for the PA to issue these them as a contribution to the integrated coastal management of the sites.

Degraded areas along the coast have once again been the subject of tree and shrub planting. Details are listed in the biodiversity project.

Project Elysium – Biodiversity

A continuation of the upgrade of the Elysium Nursery, situated at Ghajn Tuffieha close to the Apple's eye restaurant took place in this period. Maintenance on one of the wells took place, rubble walls were repaired, the last parts of the area were cleaned out of rubble and dumped material, and an expansion of the nursery facilities took place to accommodate another 4,000 plants. A sprinkler system was introduced to cover the whole area within the nursery that is use. 174 trees and shrubs were planted within the nursery grounds as part of the landscaping.

Action.

Planting. Indigenous trees and shrubs planted in the report period were as follows:

By date and location (all at Ghajn Tuffieha):

1.	21.10.00	133	Nursery
2.	28.10.00	31	Nursery
3.	11.11.00	11	Nursery
4.	25.11.00	123	Golden Bay (GB) Headland
5.	05.12.00	15	Nursery
6.	09.12.00	284	GB Headland Perimetre
7.	16.12.00	221	Ghajn Mixkuka Tower
8.	06.01.01	222	Lower Clay slopes

9. 09.01.01	200	Lower Clay Slopes
10. 13.01.01	284	Lower Clay Slopes
11. 27.01.01	440	Upper and Lower Clay Slopes
Total	1964	

Species Planted were:

1. Pinus halipensis
2. tamarix africana
3. atriplex halimus
4. Cremnophyton lanfrancoi
5. Olea europea
6. Pistacia lentiscus
7. Laurus nobilis
8. Senecio bicolour
9. Centarea cressifolia
10. Rosmarinus officinalis
11. Tetraclinis articulata
12. Helicrysum melitense
13. Vitex agnus castus
14. Euphorbia dendroides
15. Hedera helix
16. Myrtus comunis
17. Inula crithmoides
18. Lygeum spartum

Propagation at Elysium Nursery.

A number of cuttings and seeds were stuck and seeded respectively. The figures listed below are however restricted to potting, which gives an accurate picture of the plants that have been successfully propagated:

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|----------------------------|-----|
| 1. Pinus halipensis | 850 |
| 2. Ceratonia siliqua | 750 |
| 3. Atriplex halimus | 500 |
| 4. Cremnophyton lanfrancoi | 60 |
| 5. Inula crithmoides | 60 |
| 6. Pistacia lentiscus | 150 |
| 7. Laurus nobilis | 10 |
| 8. Populus alba | 250 |
| 9. Centauraea cressifolia | 85 |
| 10. Rosmarinus officinalis | 154 |
| 11. Salvia verbenaca | 10 |
| 12. Vitex agnus castus | 150 |
| 13. Hedera helix | 148 |
| 14. Chamaerops humilis | 80 |
| 15. Holoschoenus vulgaris | 63 |
| 16. Periploca angustifolia | 50 |

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Problems:

1. The planting season began very late owing to unfavourable weather conditions, namely the almost total lack of rainfall in the first half of Autumn, making planting impossible after a 6 month drought. Planting in October and November was limited to Nursery area and just beyond.
2. The strong salt laden Northwesterlies remain a constant challenge to the newly planted trees, that bear signs of exposure. The trees would however be developing their root system over this period and recover in the Spring. The loss rate so far of trees planted this season is negligible.

Project Athene – Olive trees/agroforestry

The once familiar olive tree has all but disappeared from Malta's landscape and habitats. The planting of olive trees at Ghajn Tuffieha is part of a pilot project for the reintroduction of the olive tree. The benefits include the following. The olive tree

1. is very indigenous to Malta
2. is productive.
3. can form the basis of a new industry in agriculture
4. requires relatively little water
5. can introduce agroforestry to the island. This can:
 - i. increase the nutrients in the soil
 - ii. provide cover against air born pesticides and salt
 - iii. dramatically increase the number of trees on the island since it would open up otherwise unavailable land and would, through the farmers' initiative, have a multiplier effect that would exceed the efforts of Government and NGO's.

Action:

1. Another 650 olive trees ready for transplanting have been purchased.
2. 800 seeds have been planted at Elysium, using seeds from different types collected from Wardija, Ghajn Tuffieha and Mgarr, Malta. The growth of the different types will be monitored.
3. local farmers within the Ghajn Tuffieha management area are being encouraged to introduce olive trees, available from Elysium, along the borders of their fields. Response has been slow. It is hoped and expected, however, that once the first couple of farmers take up the offer, others would quickly follow. It is believed that farmers may over cautious because they might suspect that their claims to the public land which they farm might be jeopardised. More work is required to put their minds at rest.
4. olive trees have been planted on the site designated for the Manager's permaculture project.

Problems:

1. Some 12 olive trees were destroyed at Hotba l-Bajda in August as a result of a bush fire. These are being replaced in February, 2001.

Project Dyonisius – Beach Management

Action

Safety:

The safety lines at Ghajn Tuffieha proved very successful once again. No casualties of the dangerous underwater currents were registered. Unfortunately there were two fatalities towards the end of summer in the neighbouring Golden Bay, which falls outside the management site, due to similar undercurrents, which have been deemed less dangerous than the Ghajn Tuffieha ones. The Ghajn Tuffieha safety lines were removed in mid December at the onset of rough weather, to be reintroduced in May. The Manager is considering introducing similar safety lines for Ramla in Gozo as well as Golden Bay.

Beach safety was enhanced through the carrying out of regular patrols and enforcement of regulations pertaining to pleasure craft around bathing areas. Details are listed below under project Poseidon.

First aid facilities were retained by the manager on site at Ghajn Tuffieha. No major incidents took place over the swimming season.

Security was stepped up around the Ghajn Tuffieha Bay area, especially on weekends, following some reports on harassment to women. Plainclothes police officers were hired on weekend afternoons to augment the manager's patrols. Following such intervention the number of complaints that had reached a peak around June to early July started to wane considerably.

Beach cleaning.

This remains the responsibility of the local councils, who work with the beach cleaning section of the Tourism Dept. The removal of Posidonia in summer at Ghajn tuffieha takes place, according to the agreement between the said two parties, twice a month. Some of this has been stored on site for composting rather than taken to the landfill. This also reduces the frequency of trucks going down to the beach.

Supervisors of the Local Councils have frequently noted sand along the stairs leading up the clay slopes, and have at times given the beach cleaning rating here low points as a result. This is a natural occurrence, owing to the prevailing winds, but may also be due in part to people leaving the beach. It is eventually washed down again to the shore with the autumn rains. In any event it is not deemed to be an environmental problem although it has effected the beach cleaning rating.

Beach bins and waste management. Details are listed below under Project Phoenix.

Project Poseidon – Marine Conservation

As part of Malta's UN sponsored Coastal Area Management Programme (CAMP), the EPD has commissioned a marine survey of the area around Ghajn Tuffieha, namely between Rđum Majjiesa and Ras ir-Raheb. The CAMP team is coordinated by the EPD and the EMU of the Planning Authority. There are a number of members on this team. The Gaia Foundation has not been approached to be on the team. It has however been asked to participate in the meetings organised for stakeholders. CAMP is currently working on a management plan for the North West of Malta, wherein Ghajn Tuffieha is situated. This will include a management plan for the said proposed marine conservation area. Meanwhile the Manager is effecting interim measures that are based upon patrolling and assisting in the enforcement of existing regulations.

Action

The "Poseidon", a 17 foot (5 metre) fletcher type boat, with a 140 HP engine, was purchased in April, 2000, under the LIFE funding, and has been very useful in the conduction of patrols throughout the site from Rđum Majjiesa to Ras ir-Raheb. On weekends the Manager hired the services of a plain clothes police officer to assist in ensuring compliance of regulations relating to jet skis and speed boats in the bay areas. By and large the patrols were very successful and increased the beach safety considerably.

As part of its multitasking management practice, the patrols are also used to assist in beach cleaning services in otherwise inaccessible beach coves around the designated site between Majjiesa and Ras ir-Raheb.

Problems

The track record in Malta for safety in connection with such sea craft in bathing areas has been notoriously bad, with accidents on the increase. The Manager has established contact with the water sports facility operators in the neighbouring Gnejna and Golden Bays to ensure best practices and to development mutual cooperation and assistance for beach safety in the proposed area.

The manager has noted that despite an increase in patrols in the area by the Administrative Law Enforcement of the Police Department (ALE) and the Civil Protection Department, enforcement has suffered a setback owing to the fact that the latter no longer falls under the Police Department, and therefore lacks any enforcement powers. The Manager would propose that the Civil Protection Patrols follow its adopted procedure to work in collaboration with the Police Department by hiring the services of a police officer. Without such procedure the public expenditure involved in such

patrols could not take advantage of multi tasking that would increase beach safety and reduce the already impossible workload of the ALE. In the absence of enforcement jet skiing is very often a horrible accident waiting to happen. The civil protection boats are virtually patrolling and waiting for it to happen and are powerless to effect prevention.

Project Persephone – Sustainable Agriculture

A detailed 87 page report on sustainable agriculture to form the basis of the Manager's pilot project at Ghajn Tuffieha has been completed. This in turn has been based upon the principles of permaculture, comprising the most advances and detailed sustainable techniques.

Action

The first measures have been taken in the implementation of the project. The area thereunder is covering 5 tumoli (circa 1.5 acres). The first measures include:

- i. the growth of the perimeter pine trees and the olive trees situated between the areas designated for vegetable growth.
- ii. The sowing of clover to act as a green compost.
- iii. The repair of rubble walls.
- iv. The uprooting of the acacia sprouts in the area cleared of acacia in Spring to make place for indigenous trees, including the productive fig and almond trees.
- v. The tilling of the land.
- vi. Vines have been ordered and should be supplied in the month of February.
- vii. A small vegetable patch based upon the permaculture has been introduced at the Elysium Nursery in order to increase public exposure to the project.

Problems:

The water available on site remains a major problem. Without a regular water source such a project will encounter tremendous pressure when it is set to be Malta's first real experiment in organic and other sustainable farming techniques. This problem should be addressed by the authorities as soon as possible.

The learning curve over the next 12 months will be critical to the success of organic farming in the area as the Manager puts the recommendations set out in the report into practice.

Project Phoenix – Sustainable waste management

Action

The Manager has been working on a local waste management system to cover the area under coastal management as well as the environs through the cooperation of other stakeholders, like bars, restaurants and hotels. The system is largely based upon the 3 R's principle. The projections listed in the April, 2000 report were implemented, with some adjustments. These projections were listed as follows:

1. Collection of waste to be sent directly to the Sant Antnin Plant – It was decided to retain the services of Green Skip Services Ltd. for collection and disposal of separated waste at Ghajn Tuffieha Bay. Following the end of the summer season the company was requested to submit a report furnishing details of the disposal. This report has not yet been received.
2. Introduction of organic waste bins at Ghajn Tuffieha Bay. These were introduced in the summer of 2000.
3. Collection of Posidonia for composting. Some posidonia has been collected and kept a short distance from the bathing area, where it does not affect bathers, and where sand and salt can be drained easily to the sea.
4. Composting at Elysium Nursery. This was set up. All organic waste from the neighbouring Apple's Eye Restaurant is collected and composted, for reuse in the nursery. Organic waste from staff is also used, together with weeds cut from the nursery grounds.
5. Bins at the Ghajn Tuffieha Car Park. Bins were available at the entrance to the bay. These could however be increased for the next season.
6. Bins at coves accessible only by sea. These were placed at the South face of the Qarraba Isthmus, the North face of the Qarraba Peninsula and two coves along Rdum Majjiesa. They were serviced by Gaia personnel.

In addition to the above soil deposited into the nursery grounds from the Ghajn Mixkuka (Golden Bay) Headland was collected and reused for potting in the nursery. Compost was purchased from Sant Antnin to add to the soil for repotting.

As part of the consultations and cooperation for the implementation of the Ramla Bay management Plan, the operator of one of the restaurants on site was approached in January, 2001 in order to organise an efficient waste management system. All organic waste from the said restaurant has for some time now been recycled by the operator's family for consumption by their farm animals. Plans were discussed to introduce a separated waste bin system for glass, metal and plastic, as well as a system for reduction of plastic through the introduction of refillable water containers. Other beverages are already contained in kegs, with consumers being given paper cups. A small amount of refillable glass bottles are kept for clients at the restaurant. No glass bottles are allowed to leave this restaurant for the beach. Further study is required in order to assess the waste generated by the 2 restaurants at Ramla. Such data would enable the Manager to assess the feasibility of a comprehensive waste management for them, keeping in mind that at present there are no facilities as yet in Gozo to deal with separated waste.

Project Pegasus – Arial Surveys and Monitoring

Action

A number of arial photos have been purchased for a number of sites forming part of the North West as well as Gozo. These are deemed to be amongst the most ecologically sensitive areas. Although

these photos are not photogrammetric, they are nevertheless very useful for monitoring purposes. Copies of these photos are attached and marked documents D to ?

Important elements that are monitored include:

- i. the state of the sand dunes, clay slopes, watercourses and wetlands at Ghajn Tuffieha, Ramla and other sites.
- ii. the encroachment of agriculture on sand dunes and other areas of ecological importance,
- iii. soil erosion,
- iv. degraded areas due to human intervention like offroading and bushfires
- v. the Gozo landfill which is situated above Ghajn Barrani, next to Ramla, and spillages therefrom.
- vi. Illegal development.

Project Hermes – Information and Awareness

Action

This project focuses on information placed on project sites and in cyberspace.

On site: Information boards at Ghajn Tuffieha have been regularly maintained. Preparations are under way to increase the number of boards in places which are visually not intrusive, yet effective. Each project will have its own board, enabling visitors to the Ghajn Tuffieha and Ramla sites to follow coastal area management step by step.

Website. A total update of the website is underway. The update is expected by March, 2001. It will be reflecting a project oriented approach as opposed to a more restricted site oriented approach. This would increase the information dramatically while at the same time make it more navigable. Such work is considerable and must take into account the fast pace of the coastal project work, and has therefore been delayed by some weeks.

Project Odysseus – Eco Tourism

This project is at a preliminary stage, since the “eco tourism product”, as it were, is still in the making. The various projects that make up coastal management can be viewed in turn as various aspects of eco tourism for the eco tourist. Local stakeholders are being approached, like the horseriding school, diving schools etc. as part of the preparations to make the Ghajn Tuffieha and Ramla sites ones designated for sport and eco tourism areas. These will form part of coastal eco tourism management plan to be drawn up by the Manager in 2001. Such plan shall include details of nature trails, visits to ecological sites, visiting and assisting at Project Elysium and Project Persephone sites.

The following 2 projects are not funded by LIFE.

Project Galatea – Management of historical sites.

A management plan is being prepared for the Ramla historic Roman and Medieval remains, in cooperation with the Museums Department. This will include the provision of information on site and protection of the monuments.

A management plan is also being considered for the historic sites at Mistra, which falls in the North West. A proposal for a 4 way cooperation agreement between the Gaia Foundation, The St. Paul's Bay Local Council, the Department of Museums and the Faculty of Archaeology has been made in January, 2001 by the Foundation to the other prospective partners. The Department has verbally expressed an interest in cooperation. The Foundation is currently waiting for feedback from the Council.

Project Apollo – Visitor Centres

The Manager is currently working on utilising the Ghajn Tuffieha Tower as a visitor centre for cultural and environmental information. An application is pending with the Planning Authority for the construction therein of an internal staircase to gain access to the second floor.

An outdoor visitor centre is also being considered for Ramla Bay in Gozo. This would not involve any new construction, but may partially utilise, subject to approval, the disused Police Station which is being considered as a centre for security and first aid.

Conclusion

Project Gaia, the integrated management of specially protected coastal areas in Malta and Gozo, is well under way, and is expected to complete the first phase of the LIFE project by the summer of 2001. The most advanced projects are those that were deemed to be the priorities, namely coastal conservation, biodiversity and beach management. These were commenced at Ghajn Tuffieha prior to the commencement of the LIFE Project period, while the other projects have commenced in 2000 and have started to build the foundations for sustainability and growth. It is the Manager's opinion that if such a project is to yield successful results a greater working cooperation needs to be established between the stakeholders, with clear targets for each. While certain public agencies may have their own targets and agendas, a specific coastal project's targets, with designated periods for implementation must be respected and must enjoy these agencies' full support, in order to achieve the best results in the interest of all. The Manager notes that the implementation of the management of these special sites has been prejudiced by certain public agency delays, particularly:

1. Planning Authority:

- a. Delays in issuing conservation orders for the protected sites.
- b. Delays in providing access to data on the said sites – 9 months
- c. Delays in following up enforcement of illegal development - various
- d. Delays in deciding on beach bar facilities that are essential to proper beach management – 22 months
- e. Delays in issuing a compliance certificate to the Manager for the provision of electricity on site - 6 months.

All 5 issues are still pending as at the 31st January, 2001.

2. *Lands Department:*

- a. Delays in providing delineation of public land at Ghajn Tuffieha – 2 years
- b. Delays in providing delineation of public land at Ramla, Gozo. – 8 months.

3. *Malta Maritime Authority:*

- a. Delays in providing yellow markers for Ghajn Tuffieha Bay (in 1999, placed in mid August, in 2000 placed in mid July, instead of early June or even May)

4. *Beach Cleaning Section of the Tourism Department:*

- a. Delays in removing posidonia at Ghajn Tuffieha
- b. Delays in beach cleaning in the month of October.

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