



Trees for People

Malta & Gozo Afforestation Project





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Background

The extent of vegetation cover and natural habitats in the Maltese Islands has been drastically reduced by centuries of human habitation. Large areas of woodland have been cleared to make way for agriculture and other forms of land development in a country where land resources are very limited and pressures for development are very high due to increasing population density.

A number of afforestation initiatives were undertaken in Malta in the 1960s and 1970s to increase tree cover in Malta. However, these earlier initiatives promoted and introduced alien species and efforts were not taken within a strategic vision. Today, there is greater awareness of the environmental need for well-planned afforestation in order to attain the desirable benefits for the local and global community.

Locally there is also an increasing recognition of the need to conserve and propagate native woodlands, such as oak woodlands, other habitats and related fauna, as well as to offer recreational and educational facilities for the public at large. Since the 1990s, there has also been the idea to develop a number of national parks to provide for environmental, recreational, educational and cultural needs.





Government's Commitment

As from last year, responsibility for national and regional recreational parks, and for afforestation, have been brought under the same organization, formerly the Parks and Landscape Conservation Section (PLCS)

PLCS is now under the responsibility of the Ministry for Rural Affairs and the Environment, as the Parks, Afforestation and Rural Conservation Department (P.A.R.C. Dept.). This new set up will enable a more integrated and strategic approach to such initiatives under the Ministry for Rural Affairs and the Environment.

The Government has taken the initiative to develop a series of afforestation projects and to co-ordinate these together with national and regional parks across the Maltese islands as a long-term objective. This approach is intended to achieve a number of aims into a strategic vision with a plan for immediate action and implementation. In the last couple of years a number of prospective sites were identified for afforestation. The long term strategic vision is imperative to ensure that the whole initiative is of benefit to future generations. Our aim is primarily to foster the Maltese landscape (including its cultural, ecological and aesthetic values) for future generations.

The whole range of potential sites that have been identified over the years for development and management as areas of afforestation or national and regional parks, and on some which project implementation has been commenced, are now being encompassed within a unifying national strategy for parks and afforestation.

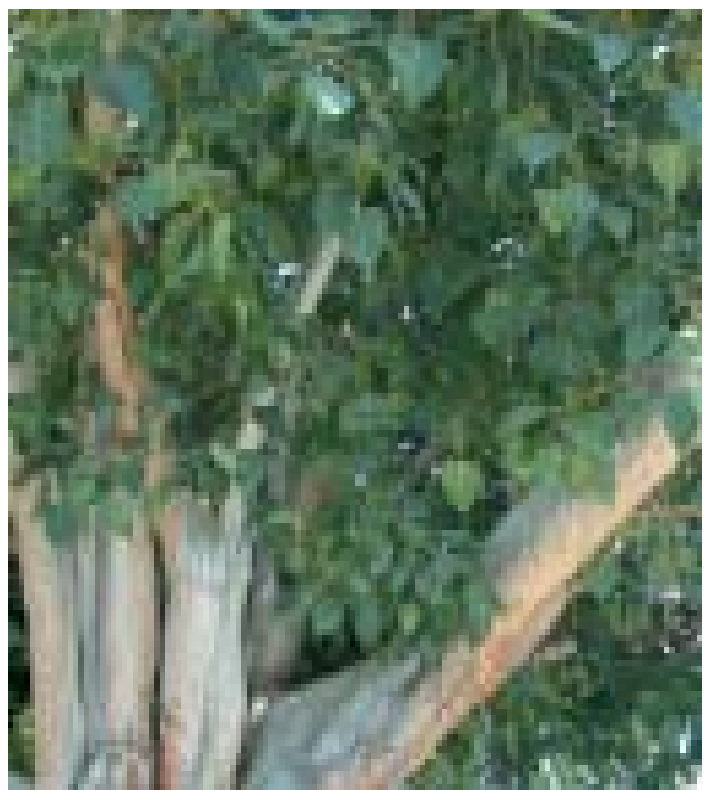
The long-term strategy is aimed to develop various sites around Malta and Gozo as typical Maltese woodlands. The various initiatives also seek to engage partners including local councils, NGOs, schools, and the private sector in sponsoring and assisting in the long-term management of the sites. The afforestation sites are integrated and positioned strategically in combination with the locations of National and Regional Parks. The strategy includes the co-ordinated development of large open areas with recreational facilities of a particular theme. They are developed on a national framework for strategic and even distribution of a diverse range of recreational facilities, each with a different setting.

The various parks will offer countryside, waterside, heritage as well as activity-oriented facilities. Envisaged facilities include cycling, horse riding, trekking, bird watching, passive recreation, sightseeing, informal sports, among other possible forms of recreation. The emphasis on these developments is to develop, and then manage, open spaces for these recreational, social, cultural and educational purposes in a sustainable manner that safeguards their environmental values. An important component is landscaping, and the various parks include areas of afforestation in indigenous species and the restoration and management of typical Maltese habitats, as appropriate to the specific site.

The status of proposal development or implementation on the range of sites varies. From more than ten sites around Malta, four have been short-listed for tree planting in the next two years. However, given that this is the first time that the development of parks and afforestation projects is being tackled in such a comprehensive and strategic fashion, and also in view that it is still in its initial stages of implementation, assistance is required to get the programme going. Assistance is required both at the technical and operational levels, especially in the first two years that are critical for the long-term success of the strategy.

In addition to a long-term plan for implementation an immediate plan of action is also required in order to:

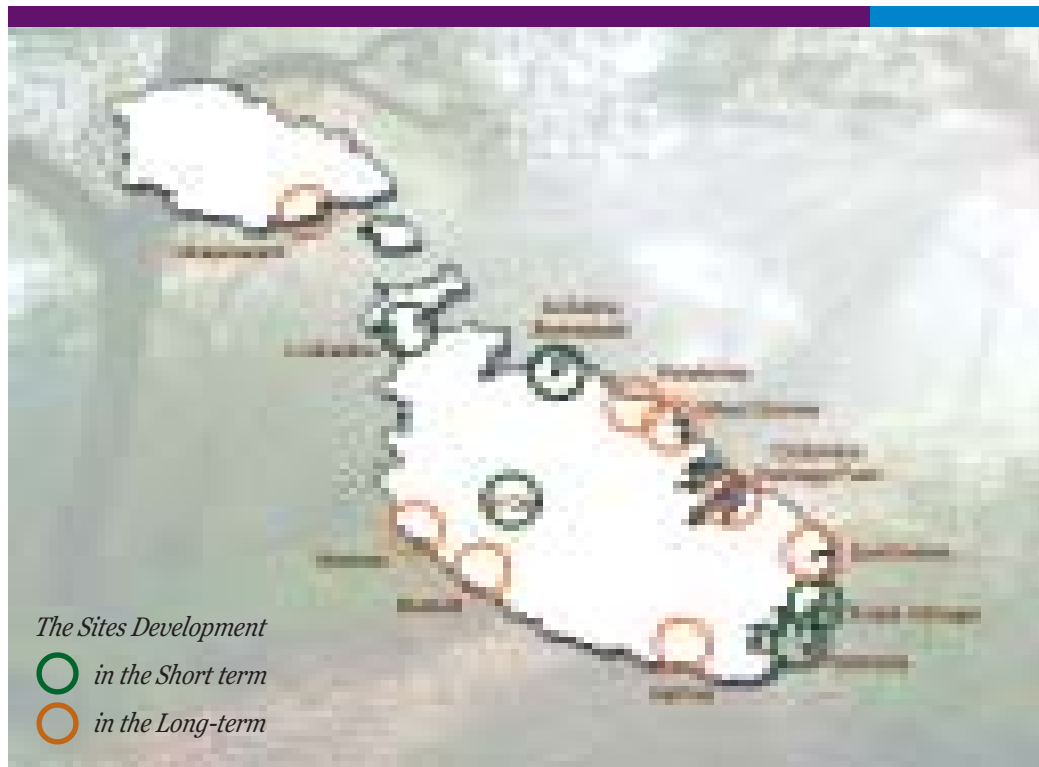
- a) safeguard future options and prevent inappropriate allocation and use of land that would jeopardise future afforestation and park development;
- b) to embark upon building greater public awareness for the need for such projects;
- c) to build consensus among stakeholders and to start identifying partners from NGOs, the private sector or other entities for collaboration on each individual project; and
- d) to introduce protection measures and instruments and better management practices on sites where there are ecological, recreational or cultural values under threat.





The stocks of trees needed for the next three years are of around 12,000 trees for 2004; 15,000 for 2005; and 25,000 trees for the year after

a breakdown of envisaged quantities by species is found on page 19



Achieving the above objectives requires an augmentation of our current landscape conservation and environmental management operations. Meeting targets envisaged over the next two years (with regard to the four identified sites), and in future stages of afforestation and park development in years beyond this timeframe, demands a build-up in this capacity on several accounts. We plan to strengthen the organisation responsible for Parks, Afforestation and Rural Conservation (PARC) Department by developing human resources, acquiring the necessary

equipment, developing support facilities for on-site operations, and also finalising a long-term vision with programmes for implementation over (at least) a 20-year time-frame. Improvements are required in our existing physical facilities, equipment, staff, genetic bank, such as nurseries; and material depots and re-use facilities.

The build-up in the coming two years will enable the Ministry for Rural Affairs and the Environment to achieve the mission statement of the PARC organisation, namely: to foster the Maltese landscape for future generations

The Selected Sites for Short-term Projects

Five main sites have been identified for the planting of trees and the creation of woodlands which will be undertaken in the next two years

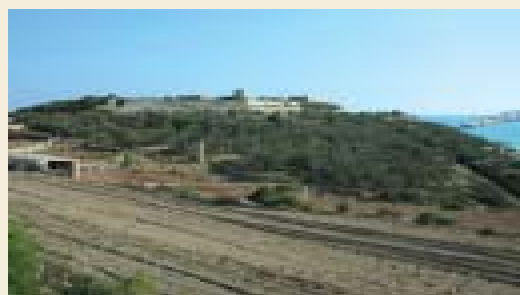
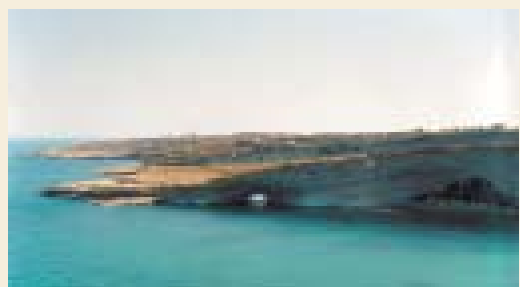
- Delimara •
- Xrobb l-Għaġin •
- Ta' Qali National Park •
- Salina •
- Melieħa •

Each of these sites includes more than one project/initiative and the five sites have been prioritized from the wider national range of sites that will also be tackled in subsequent stages of afforestation and park development in the next decade or so

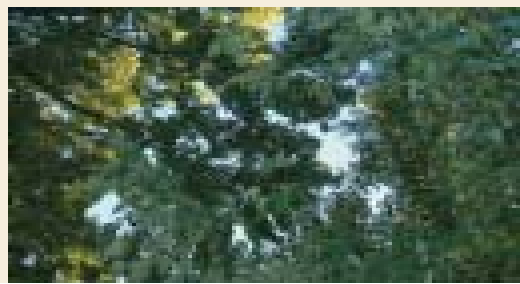
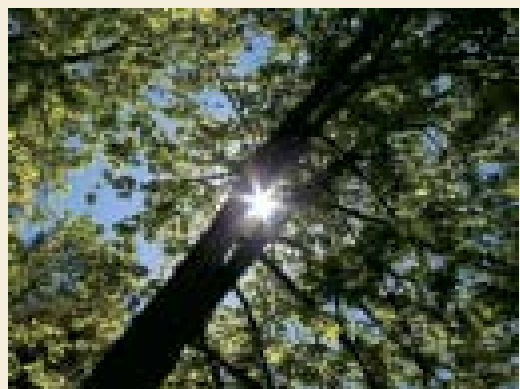
The Medium to Long-term Projects

- Buskett Gardens/Nature Reserve •
- Cottonera Heritage Park •
- Hal Far National Recreational Areas •
- Sant'Antnin •
- Mtaħleb •
- Għajnsielem •
- Pembroke •

These are but a few of a wider range of sites, some of which are regarded as more challenging to tackle because of harsh or sensitive site conditions, remoteness, unavailability of water, or higher resource requirements. They have nevertheless been identified as prospective afforestation or park sites because of their intrinsic values or potential benefit in restoring derelict areas into native woodlands, other habitat types and areas of recreational value



Most of the site offers magnificent country and sea views with relative ease of access on foot and it is ideal for creating managed country and heritage walks



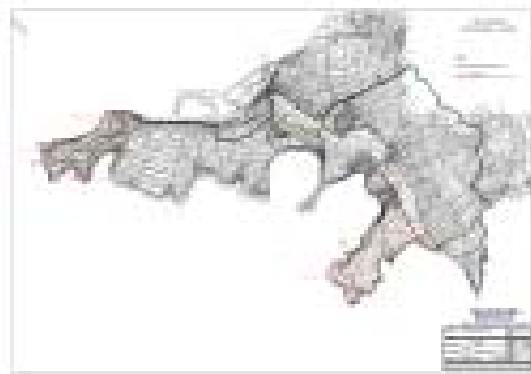
Delimara

The Delimara peninsula consists of a number of promontories and inlets consisting mainly of agricultural or derelict land, but also including areas of ecological importance. The whole peninsula holds a wide range of historic buildings that together with the open views offer a unique environment for visitors

The southernmost promontory that falls within the boundary of the proposed Delimara National Park has been identified as an area of prime opportunity for afforestation and development into a focal recreation site in the national park, mainly because of its position, heritage and ecological values, and commanding views. The whole park encompasses a diversity of features that are of historic, cultural, ecological and aesthetic value. This is witnessed by the large number of people visiting this part of the island.

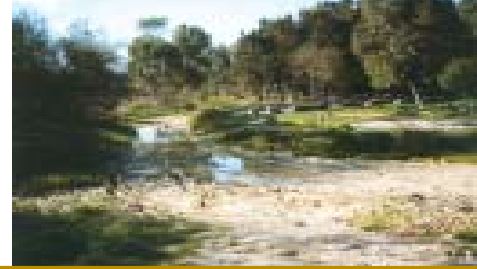
The promontory has an area of around 21 hectares. The site can be described as generally derelict, with no organized management.

Afforestation efforts have taken place in the past. This is witnessed by the large amount of trees mainly blue wattle (acacia) and tamarix species. The former is an exotic plant which tends to be invasive. Tamarix on the other hand is a native species usually found on coastal areas. Various structures are scattered over the site,



these are generally related to military buildings of WWII origin. The most dominant buildings include a lighthouse and Fort Delimara, both of which are of Victorian origin.

All these features offer potential to develop the promontory into an area of diverse activity. The design concept is to intermingle outdoor recreation, education and nature protection with each other, using indoor and open-air facilities, museums, camping sites, maritime woodland while also safeguarding traditional local industry such as salt production, currently practiced on site. Most of the site offers magnificent country and sea views with relative ease of access on foot and it is ideal for creating managed country and heritage walks.

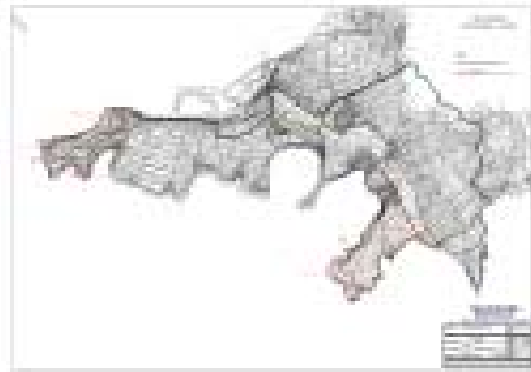


Immediate measures proposed are aimed to combat surface erosion and re-establish vegetation in degraded areas



Xrobb l-Għagin

Another area within the park boundary is another promontory known as 'Xrobb l-Għagin.' The site consists of an abandoned transmitting facility, the site has been relatively undisturbed for the last decade or so. Vegetation is in a process of natural regeneration but lack of management of the site has left it prone to moderate erosion. Immediate measures proposed are aimed to combat surface erosion and re-establish vegetation in degraded areas.



The site will be developed for (controlled) recreational and educational activities, using the existing infrastructure of buildings and roads

It will incorporate outdoor furniture, play equipment, as well as fencing to make the site safe and suitable for public use. Dense vegetation will be promoted in selected areas only, leaving most of the site to regenerate under a management regime.





Planting strategies for this site will vary according to the ambient characteristics required for each specific area taking in consideration its intended use and intensity of use

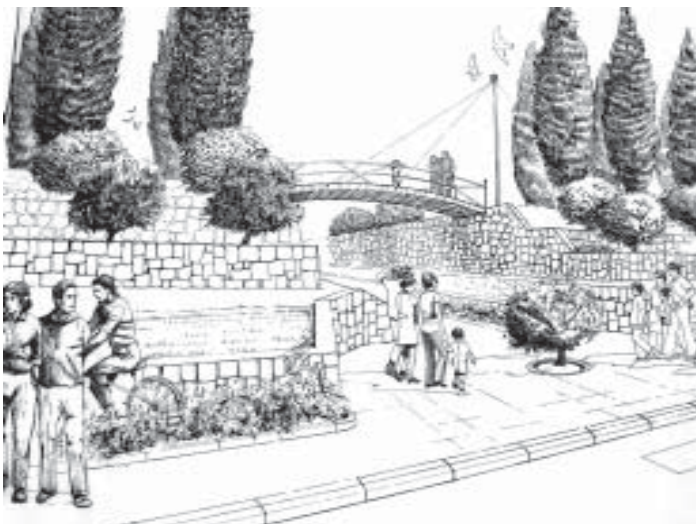


Ta' Qali National Park

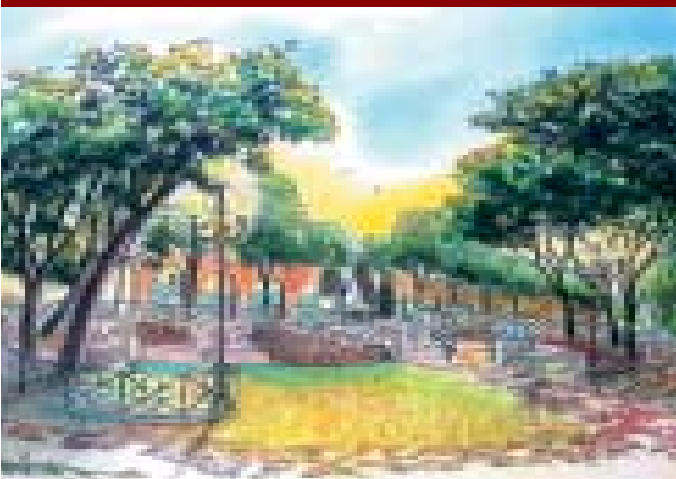
Ta' Qali is currently the only national recreational park on the island. The whole area is divided into formal gardens and picnic areas, among a range of other recreational and cultural facilities. Altogether these offer the ideal setting for various activities, from passive to active recreation. In both areas, works include hard and soft landscaping. Ta' Qali is envisaged as a national center for outdoor recreation in a countryside setting

Planting in formal areas is to be carried out on regular grids. This is complimented by the choice of species, usually selected for their aesthetic features. Planting strategies vary according to the ambient characteristics required for each specific area and its intended use, and intensity of use.

The informal areas include picnic sites. Such areas are free from hard surfaces and their function is normally aimed at family activity and informal recreation. Proposed planting in these areas is irregular with a two or three tier canopy. These will include a tree, shrub and herb layer.



Infrastructure works are required to provide safe and adequate access, vehicular and pedestrian, to visitors and also to provide for irrigation, surveillance and proper management of the facilities. Major investment is required for improving collection of storm water and harnessing its value for irrigation.



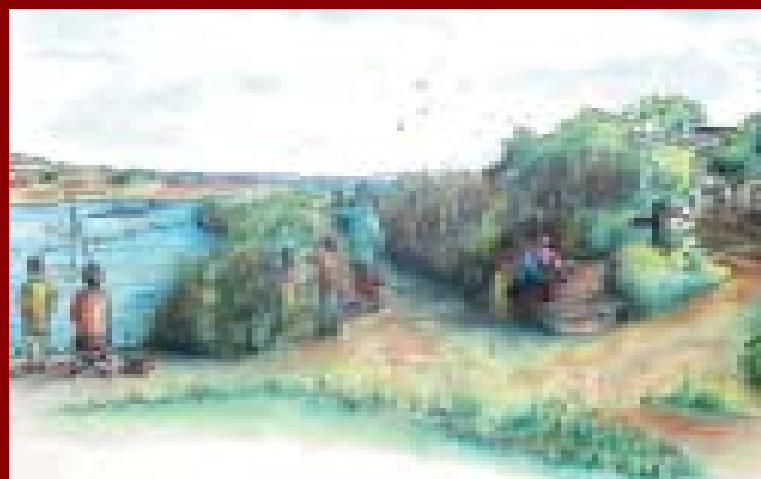
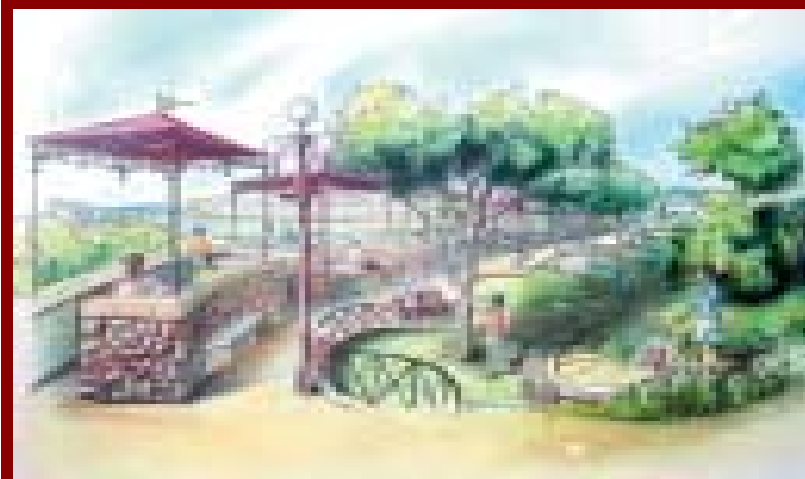
Salina

The site at Salina consists of two main areas. The Upper Area currently consists of derelict fields with isolated trees. The area has already been planned, and approvals obtained. Works can commence once suitable plant and equipment is provided and tenders issued. Proposals include two car parks, underlying reservoirs as well as public amenities and play areas.

The Lower Area is ecologically sensitive and requires more detailed studies for the possible restoration of a wetland on the site. An NGO has showed interest in the project and discussions have already been held by the department with this NGO (BirdLife Malta) regarding the future management of this part of the project.



The two Salina areas altogether comprise the site of a proposed national park that incorporates the Kennedy Grove area, which is already a very popular recreational area





The site consists of a varied landscape that is, however, characteristic of the northwest of mainland Malta. The area has been intensively used and altered by human activity, often to the detriment of the natural environment



Mellieħa

This project has been proposed by two local NGOs, Birdlife and Din l-Art Helwa, who have, in the past, asked the PLCS for assistance in the NW areas of the island. Their proposals were compatible with the aims of the department and a partnership with these NGOs suited the future management needs for this project. After further discussion an agreement for the development of the site was finalised and the project is currently in its first sector of completion (out of a total of six).

Government owns most of this land that consists of a valley including the valley floor, and the north and south facing slopes. This site also bears the mark of earlier afforestation efforts with hundreds of introduced acacia species that have restricted the development of native species in a number of areas. Nevertheless, the area supports other important endemic species that merit protection, better management and further propagation.



The project has been subdivided into a number of phases for implementation, starting with an area that consists predominantly of clay slopes which demand immediate attention to mitigate high rates of erosion because of misuse (such as off-roading) and lack of vegetation cover. Afforestation in other areas of the site can only be undertaken once the necessary infrastructure and repair works are completed (especially irrigation and rubble walls).



Assistance required in the Short-term

Assistance is being sought for the initial stage of implementation of this initiative, to get the programme going. The five selected sites, described in this document, will provide a broad platform for building greater awareness, willingness for participation, as well as experience and human resources in-house for tackling the latter series of (more challenging) project sites

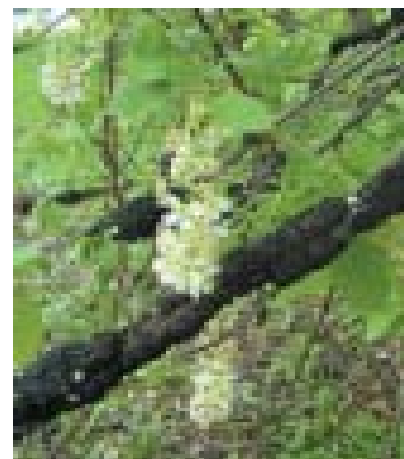
A list of trees and shrubs required for planting in the coming two to three years has been drawn up for the five above sites. This includes eleven different species of indigenous trees that are listed in the attached annex to this report. Assistance is required to obtain sufficient quantities of eight of these species (with quantities exceeding 1000 of each). To this end, assistance is being sought from neighbouring Mediterranean countries.

We are also in the process of establishing a proper set up to meet the above objectives. This will not only entail the planting of trees. It also requires extensive ground works to be completed before trees can be planted with good chances of survival. Thus we also need to develop the necessary infrastructure, including good site access, ground preparation, reservoirs, water management measures, and irrigation systems. One of the major shortcomings being experienced is the lack of specialised heavy plant and equipment.

Following the development (and planting) of specific sites, we foresee the need for proper management and upkeep. The lack of well-trained personnel is another problem that is already faced in the management and upkeep of the (limited) existing areas. Lack of skills also impairs successive stages of this long-term initiative because better nursery facilities are needed to propagate the number of shrubs and trees required for other project sites. It is not desirable to be totally dependent on outside sources for trees and shrubs. In view of this, it is planned to upgrade the existing facilities, and to develop new ones, for meeting future demands for plant propagation for these specific projects, in house.

Assistance is required on three important fronts, namely:

1. **The provision of trees and shrubs of native origin** to provide an impetus to the initiative by embarking on significant tree and shrub planting on the selected sites. This will initiate the process of establishing woodlands and afforested areas at the earliest time possible. Assistance on this level will give us enough time to develop better equipped nursery facilities for the propagation of more vegetation of local genetic origin and for the successive phases of project development.
2. **Provision of equipment** that will be required for the physical development of the first and successive phases of project development, as well as for the continued management of facilities and projects, once these have been developed. Funding for the development of infrastructure required prior to planting. This is crucial for their future management and upkeep.
3. **Technical assistance and training** of ground personnel to build the necessary skills, particularly for propagation and long-term caring of trees and shrubs that will be required regularly. Technical advice on the development of proposals and on best management practices for the individual sites. This will be required on an ad hoc basis.



Envisaged quantities of trees by species required for the next three years

	2004	2005	2006	Total
1 Pinus halepensis	6000	8000	13475	27475
2 Olea europaea	3000	4000	7000	14000
3 Quercus ilex	800	900	1000	2700
4 Tamarix gallica/africana	600	700	950	2250
5 Populus alba	500	650	1650	500
6 Ceratonia siliqua	300	400	620	1320
7 Cupressus sempervirens	250	350	450	1050
8 Vitex agnus-castus	200	300	500	1000
Total	11650	15150	24645	51445



Trees for People

Malta & Gozo Afforestation Project

The extent of vegetation cover and natural habitats in the Maltese Islands has been drastically reduced by centuries of human habitation. Since the 1990s, there has also been the idea to develop a number of national parks to provide for environmental, recreational, educational and cultural needs.

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