

## 1.1 Evaluation of the Ecosystems

The results obtained in this investigation indicate that the area under study is one of considerable ecological value. The main factors which have contributed to the formation of these ecosystems are the existence of relatively mild forms of human intervention over many decades, the length of time which has passed (66 years) since the last major forest fire in the area and the absence of any exploitation of the forest during the last ten years, in conjunction with the interesting geographic situation, the relative seclusion of the area, the variety in the geological substratum, the tremendous variations in height (0-1200 metres) and microclimate and the abundance of water in the area. The most notable ecological features of the area are as follows:

### 1.1.1 Naturalness

Apart from those parts which have been subjected to major human intervention (mining, cultivation) and the ridge which has been laid bare by grazing, the area as a whole has retained its naturalness to a remarkable degree. The forest vegetation has, of course, been subjected to longterm human intervention and is not in peak condition, but rather is in a transitional stage in the ecological succession. The natural feeling which the area imparts is sustained by the presence of hosts of fallen trees which are left to rot without any sign of their utilisation. This impression is corroborated by the abundant flora and fauna, and there is no doubt that there are several food chains in operation. From this point of view the area constitutes an interesting natural laboratory, a rarity in Southern Greece.

### 1.1.2. Completeness

The presence of higher predators, such as birds of prey and the otter, is a valuable indicator of the completeness of the ecosystems. Indeed, it is proof of the existence of all food levels in the area and that the energy flow and recycling of materials correspond to those found in wholly integrated natural ecosystems.

### 1.1.3. Diversity

The number of different species of flora and fauna in the study area is very high; they offer a tremendous variety to the ecosystems, and this could be increased even further by the reintroduction of certain species, after an appropriate study has been carried out. The area is therefore a suitable one for the creation of a botanic garden containing examples of the flora of Southern Greece and a protected sanctuary for certain larger species of mammal which have disappeared from this area.

### 1.1.4. Endangered species

The presence of rare and endemic species of both flora and fauna which are threatened with extinction in the rest of Europe adds further value to the area.

### 1.1.5. Self-Sufficiency

The area's ecosystems are to a large extent self-sufficient and have relatively clearly

delineated boundaries. The degree of interdependence with the surrounding area cannot be determined without carrying out a special study, but it is considered that the continuation of activities which take place at present in the region around the study area is compatible with effective protection of the ecosystems.

#### 1.1.6. Vulnerability

The area is particularly vulnerable to dangers which would radically alter its character (e.g. forest fires) or to threats to individual rare species (e.g. endemic plants, golden eagle, otter).

#### 1.1.7. Uniqueness

Because of its numerous important ecological characteristics the area may be considered as one of the most valuable ecological units in Southern Greece.

#### 1.1.8. Educational Value

The ease of access for large numbers of visitors, the potential for the necessary facilities combined with the area's considerable ecological value render it an excellent place for environmental education.

#### 1.1.9. Possibilities for Rehabilitation

The discontinuance of mining activities on some of the slopes in the area and the abandonment of whole mines which have been exhausted provide additional potential for education and the study of matters related to the rehabilitation of vegetation, natural regeneration and the commencement of ecological succession.

### 1.2 **Aesthetic Value**

The study area is one of the country's most outstanding in terms of natural beauty. The River Kereus which flows down through the valley is shaded by a forest of colossal plane-trees. Travelling north from Chalkis, at the entrance to the valley we encounter a wild gorge at Derveni, which was fortified in the Middle Ages and was the gateway to the northern part of Evvia.

To the south and south-west of the village of Prokopi the area's forests start, in which bushes of the Mediterranean maquis, meadows and openings in the forest filled with flowers of many hues alternate with stands of both young and old pine trees.

Higher up, on the slopes of Mount Kandili, there are dense fir forests with stands of Black pine, and it is not unusual to find firs and pines growing in the same area alongside arbutus, holm-oak, wild olive and other bushy species in combinations which have a unique beauty.

Other features of aesthetic value in the area are the little streams and rivulets which tumble down the mountainside, amply shaded by plane-trees, and the numerous springs and chapels.

As one mounts towards the ridge of Mount Kandili where the forest becomes sparser, a number of rare mountain flowers are to be found in the meadows, the rocks and talus fans; from here the climber is afforded a splendid view of the north of Evvia and the magnificent mountains of Central Greece on the mainland opposite.

The natural beauty of the area has unfortunately suffered some damage in recent years caused by the creation of the forest road network; worst of all is the fact that new forest roads have been constructed on the site of former footpaths and mule tracks, destroying them for ever. In addition, the landscape in the northernmost section has been extensively damaged by mining activities in the area.

The most unspoilt part of the area is the peak region of Mount Kandili, which so far has not been reached by any mechanical means.

### **1.3 Evaluation of cultural and political-institutional aspects**

As already said, so far the practice of managing protected areas has been seldom applied in Greece. In fact, the management of Greek Nature Parks, compared with those of a large number of parks in the world, seems almost nonexistent. Generally speaking, protected areas are merely indicated on maps or guideposts: there are neither organized facilities for visitors, nor education and interpretation programs. Plans of sustainable economic development based on long-lasting utilization of natural resources have not been made. Populations which are geographically linked to the parks do not derive any benefit from their existence.

The plan of Mount Kandili Nature Park takes all this into account and proposes a completely different kind of management and development.

The guidelines are based on the concept of "sustainable development planning", and they add considerable meaning to the Park plan.

In fact, if the Park is created and managed according to the indications provided in the present paper, the Park itself will be able to take on a leading role in the framework of the system of Hellenic protected areas, and it will be possible to use it as a reference for promoting and applying new management methods and strategies in other important Greek parks.

## **2. Management objectives and the rationale behind them**

### **2.1 The park master plan**

To complete the research carried out in the field and the proposal foreseeing the creation of a park in the study area, a preliminary master plan of Mount Kandili Nature Park has been prepared.

This plan should act as a land use planning model for the creation of the park and the preparation of a general planning schedule and further detailed rules for managing land and resources (final master plan and implementation rules).

Although the proposed pattern can be optimized and modified, to be adapted to rules and procedures which will be utilized for the activation of this park, the pattern itself is aimed at defining from now on the targets of both the area administrative organization and the methods to be adopted to protect land and utilise it to the full, as well as to develop the economy.

Experience from all over the world in this sector has clearly shown the need for a strict relationship between land utilization planning - where land is meant as a place in which human activities are developed - and protecting and managing natural resources, in other words values determining land diversity and peculiarity.

In line with this philosophy, the land use planning model proposed in this plan is not based on theoretical space or development patterns (i.e. on projects of land and facilities modernization or urbanization); it is based on preserving and making the most of the area features, stressing the special role of certain areas, preserving their diversity and emphasising the identity and the values and customs of local populations.

In brief, the proposal concerns wise and integrated management of the existing resources: aiming at a reference system and a territorial organization tailored for this particular territory and generated in accordance with its features.

Comprehensive knowledge of all the elements composing the system (environment, flora, fauna, economic activities, etc.) is fundamental for developing and managing a plan such as the proposed one.

For this reason, the proposed plan on the one hand defines targets and strategies, and on the other hand it foresees the possibility of and the need for continuous integration and adjustment in the light of the results of research developed in various sectors and of experience acquired over time, through the management of this system.

Besides proposing the role which certain groups are called on to play, the Master Plan provides for a series of attainable goals, carefully identifying them.

These goals concern interventions to be made and the creation of facilities for the correct utilization of resources to be protected and utilised to the full: they are strictly linked to safeguards, they are complementary and they are indispensable for success.

## 2.2 The concept of the park

In the last few years the concept of nature parks, (and consequently aims and methods to create them), have been rapidly and continuously evolving in the light of experiences acquired in this sector and in the light of conservation philosophy. In fact, the nature park nowadays, although keeping its primary function of safeguarding natural environments, can no longer be considered as a mere means of protection, nor is it oriented to the single goal of environmental conservation. Today the park organisation, if correctly developed and given legislative and operational support, is one of the most modern and refined instruments of

integrated of land use and of the economic planning, perhaps the only one which is based on a systematic and dynamic concept which includes land resources and populations and their mutual integration.

This dynamic interpretation of the park goes beyond past theories. According to them, the creation of a park entailed merely the identification of its features and boundaries and the formulation of certain prohibitions.

The park seen as an "open territorial system" overturns these conceptions, taking on an active role, leading and stimulating activities to be carried out both in it and outside of it, according to the criterion of interchange and continuity with constitute the basis for every vital process.

In this sense the Park is no longer a set of imposed conditions, but rather an open and modern pattern for managing a territory and everything included in it. It is the best possible pattern, in as much as it tends to emphasize, harmonize and utilize existing natural, historical and human resources. It is accordingly vital that the exhaustion of even one of the existing resources should be avoided, given that all the elements in an area are mutually dependent in such a way that the destruction of even one tessera of the complex mosaic comprising it can have unforeseeable consequences.

Finally, the Park is the most genuine expression of the character, history and purpose of land and population. It testifies to the will to maintain them without renouncing economic development and cultural growth.

### **2.3 Park management objectives**

The objectives of a park considered as an "open and dynamic territorial system" may be summarized as follows:

- 1 - conservation of ecosystems
- 2 - development of human communities.

We want to add a third objective, which goes beyond the aims of the single park and better explains what has been said on the meaning of the experience to be put into practice in Evvia:

3- contributing to the protection and development of territory and to the promotion of the philosophy of sustainable development beyond the area of the nature park. In fact, each park, apart from its importance and the results it may provide, is a field for testing new land and resources operation and management patterns, new economic dynamics, new social relations: for this reason the park represents a pattern suitable in many instances, whose applications should be multiplied until such methods are applied everywhere.

All the activities foreseen as taking place in the park fall within the principles explained so far: from scientific research to park utilization for the purposes of tourism, from education to experimentation, from economic exploitation of resources to their conservation, from

maintenance and development of the existing economic activities to the creation of new integrated activities.

Therefore, a park based on these principles and provided with adequate operational organs and juridical support, rather than as an instrument of protection, may be considered as a process for obtaining new balance and harmonic development of complex land systems, endowed with great potential.

The philosophy of "sustainable development" and the conservation of resources constitutes the basis for improving local communities but also the community in general. This philosophy is opposed to that of the maximum profit and indiscriminate consumption of resources, which favours a few people and neglects the interest of the community.

### **3. The time-frame of the plan**

Planning the utilization of the nature park's territory, and the interventions necessary for managing and utilising it to the full, must be a dynamic process, periodically revised.

Therefore, the rules contained in the Final Master Plan, rules which will be approved after the creation of the Park, drawn up on the basis of studies and proposals contained in this paper, will have to be limited in their duration.

The minimum time-frame suggested as indispensable to check the effectiveness of rules defined to win the protection and development objectives foreseen in the Park Plan is five years, after the creation of the Park Management Authorities.

After five years, the measures taken for environmental protection and development of compatible activities will be reviewed: it will be possible to reclassify zones or insert new classifications for particular areas.

Alongside the possible revision to improve land management regulations in the light of a five years experience, it will be possible to prepare new long-term development plans for compatible activities.

The revised plan and the long-term programs will be approved by the Park Council, and (in the event of possible zone changes) by governmental authorities as specified under law.

The revised Master Plan will cover ten years, while the plurennial development plan will cover three years, and will be updated and reapproved every three years, then submitted to the relevant ministries.

### **4. Proposed park boundaries**

After studies and research for the first planning of Mount Kandili Nature Park, discussion and verification of principles laying down the basis for the establishment of a park, carried out by the international working group, it has been decided that the boundaries of the proposed protected area should coincide with those of the Ahmet Aga estate.



This decision was taken after an intense debate among the members of the working group, despite the fact that at first it had been thought to limit the Park territory to about one third of the Ahmet Aga estate for reasons of political nature.

In summary, the main reasons for this fundamental planning choice are the following:

- the Mount Kandili Park involves a territory which has been transformed by the man for centuries. Its planning must take into account the effects of these transformations, social-economic dynamics existing for the whole complex, and dynamics which can be activated by the creation of the Park, always local in extent;
- the establishment of the Park on the one hand tends to ensure protection of environmental and natural resources, on the other hand to promote sustainable development of local communities, as in principle this is considered as the only possible form of development;
- according to this new approach, there is no sense in protecting only a limited part of territory and starting a new form of management only in it: it is rather necessary to extend to the largest possible surface area the benefits expected from a protected area;
- the concept of conservation of species by protecting their ecosystems is accepted at an international level. The fact that equilibria governing natural environments cannot take into account man-made boundaries leads to planning the management of a park which has to be as large as possible. For the area considered the size is that of the whole estate;
- the Plan of Mount Kandili Park is the first of this kind in Greece from many viewpoints. The proposals scope goes beyond strictly environmental aspects, involving experimentation with new land management rules and development patterns: in the future, these may be taken as an example and applied to other areas. The pattern is obviously even more valid if it includes a wide range of situations, including those related to human activities;
- a wide range of situations is to be found in the territory of Mount Kandili Park: there are mines, with all the problems they imply, there are animal species threatened with extinction (and protected on an international level);
- the existing employment level should be at least secured, if not increased, and the selected territorial planning scale provides a wide range of opportunities and choices.

In conclusion, the working group, although being aware of the fact that limiting the park to a smaller area would have brought about fewer problems, and that the research for compatibilities among the various sectors would have certainly been easier, has responsibly decided to select the most valid option on a scientific and cultural level.

The Park territory has been extended as far as possible, in order to safeguard the interests of the natural environment as well as present and future interests of populations living in the area.

## 5. Park zoning

### 5.1 Explanation and objectives

The study area has been subdivided into homogeneous "zones", depending on degree of protection purpose protective regulations and kind of intervention.

Zones have been identified in relation with vocations of territories and based on their degree of conservation from landscape, natural and historical-cultural viewpoints. In addition, in order to evaluate the elements useful for creating social-economic development plans compatible with the activation of the protected area, particular attention was paid to identifying the present purpose of individual areas and their potential for productive and touristic purposes.

Considering the complexity of problems to be dealt with and the inevitable limits imposed by nature in this study, the proposed Plan has to be intended as an introductory instrument for developing the final Master Plan (as explained in paragraphs 2.1 and 7.1.1). This paper provides the indispensable guidelines for the final identification of Park management criteria. In the framework of the provided indications, it will be possible to identify modifications and deepening which will be necessary for preparation of the final Master Plan and the related implementation rules. At this stage they are indicated and explained in general, as well as their basic criteria and main principles.

For instance, this may imply that after further surveys and research it may be necessary to perfect the kinds of utilization foreseen for the individual areas, and therefore the proposed perimeters of areas may be modified.

For this reason, and also to ensure this flexibility, the Plan has been prepared utilizing criteria that ensure the start of a protection and improvement process in line with conservation and sustainable development principles, and do not define too rigid objectives, strategies and implementation methods, which are too rigid.

Areas having different degrees of protection and objectives have been assigned to different zones. The number of zones has been limited to those strictly indispensable to define different vocations and to ensure their appropriate utilization. Further elaboration may lead to a further differentiation aimed at stressing particular elements or situations, also within the same protection zone. These particular elements and situations may be limited integral reserve areas selected in the general environmental protection area or in the oriented protection one. They may be destined to become study and research sample areas because of their genetic diversity, or in order to safeguard single populations of endemic, rare or endangered plants species, particular geologic formations, etc.

Similarly, aspects of the Plan related to economic activities (production and services) may be subjected to further elaboration, verifying their compliance with population approach and expectations, so as to identify and apply possible correctives.

In line with this, also the proposed rules take this need into account: it is even more important considering the intervention's experimental character, the lack of references on a domestic level and the strong social tension existing in the area.



## 5.2 A1 Zones: strict nature preserve

Areas where the environment has retained its natural state are destined become a strict nature preserve and therefore require the utmost degree of protection.

For instance, these are areas having endemic or rare/endangered species, particular ecological fragility, interesting biotic interconnections, and are at any rate areas including important environmental values.

Therefore, the protection of these areas is aimed at integral conservation of the environment.

After research and studies, areas destined to become strict nature preserves (dark green on the map) include the slopes of Mount Kandili (the western one from the sea to the mountain peak, the eastern one from some 500 m altitude upwards) and the broadleaves wood (mainly including oaks) near Prokopi.

Specific regulations shall be created for strict nature preserve areas: visitors shall not be admitted to particularly delicate places. Regulations shall be aimed at identifying management methods and protective interventions necessary for the achievement of the expected objectives.

Meanwhile, regulations will have to foresee the way in which the resources present in areas classified as strict nature preserve zones may be possibly used for scientific, cultural, social and educational purposes.

Except for hikers' and backpackers' paths, all other interventions and structures destined to favour tourism-related utilization (picnic and roadside rest areas, educational areas, nature trails, etc.) shall be implemented on the borders of strict nature preserve zones. This choice is due to the need for ensuring the areas' utmost possible protection, subjecting them to the tourists' pressure determining the lowest possible environmental impact.

The guidelines for the preparation of regulations of strict natural reserve areas foresee that:

- hunting and shooting by any means are forbidden, as well as collection and destruction of eggs, nests, nestlings, and capture of live animals; (\*)
- collection of eggs, nests and nestlings, and capture of individuals of certain species may be authorized by the Park Management Authority exclusively for scientific purposes and based on a scientific research plan previously authorized by the Park Management Authority itself; (\*)
- grazing is forbidden;
- tree-cutting is forbidden;
- new roads or trails cannot be opened;
- collection of any plant species is forbidden except for scientific purposes and authorized by the Park Management Authority; (\*)
- circulation along roads suitable for vehicles is permitted only to Park service vehicles;

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(\*) These particular rules are to be considered as valid for the whole Park territory, although not specifically mentioned in other parts of this paper.

- access to strict nature preserve areas is permitted only through suitably signalled routes (abandonment of said routes must be absolutely forbidden);
- bivouac and night stops are absolutely forbidden except for study purposes, after a specific authorization issued by the Park Management Authority;
- vehicles can be parked and persons may stop only in the suitable picnic and roadside rest areas;
- in strict nature preserve zones, in limited areas considered to be particularly delicate and having delicate natural equilibria, visitors may be admitted exclusively for purposes of scientific research if authorized by the Park Management Authority.

### **5.3 A2 Zones: oriented protection**

**A2 zones** include territories which, although having a considerable value in terms of environment and landscape, are concerned by visible symptoms of decay, and areas which can be utilized to carry out new management techniques of natural resources.

On the one hand, A2 zones are aimed at restoring and recovering altered environments and/or natural balances, on the other hand at orienting environmental evolution to reacquire new and better overall conditions.

Therefore, all interventions aimed at environmental restoration and in general at a better management of environment are foreseen and permitted in these areas. For instance, areas destroyed by fires may be destined for oriented protection, as well as natural landscapes altered by mining and other production activities.

"Natural recovery" will include such interventions as reafforestation, reintroduction of animal and plant species, restoration of woods to the original natural state, hydraulic-forest setup operations, recovery of polluted areas, pasture improvement, etc.

In A2 zones, the need for environmental recovery will have to be compatible with the utilization by population and visitors. In any case, limited areas may be subjected to the same restrictions as A1 zones and dealt with accordingly, for reasons of protection.

As for other zones, perimeters of A2 Zones may be modified both after further acquisitions due to studies and research, and after the completion of environmental restoration and recovery interventions (on a longer term). This means that an area destroyed by fire, after a suitable environmental recovery intervention (reafforestation, reintroduction of autochthonous animal species, etc.) may become a strict nature preserve or a general reserve zone.

The identified oriented protection areas, indicated in light green on maps, are as follows:

- area included between the village of Drazi, the west border of the Park and the north forest zone. This has been inserted thanks to the variety of its landscape, which has woods, fields, pastures and coves, forming a landscape which is of rare beauty and environmental value.

In addition, the overall habitat is suitable for interventions aimed at reconstructing fauna, e.g. re-introducing wild ungulates;

- areas recently subjected to fires: inserted to recover and reconstruct the Park forest environment;
- area adjacent to Prokopi, north of the Park. Included because it was considered to be the most suitable for scientific and educational initiatives and activities, such as Arboretum, Botanic Garden, fauna area, etc. The whole complex will become a specialized center, destined for education, experimentation, research;
- small area adjacent to the road to Agia Triti. Included as it is an interesting damp zone, an important habitat for animal and plant species, some of which are rare. It was destined to become an oriented reserve in order to protect and ensure the evolution of the swamp environment which risks being compromised by agricultural activities taking place close by.

Apart from specific rules which will have to be prepared for each of the above areas, due to their different characteristics, the regulations of all A2 zones shall state the following:

- hunting and shooting by any means are forbidden, as well as collection and destruction of eggs, nests, nestlings, and capture of live animals;
- collection of eggs, nests and nestlings, and capture of individuals of certain species may be authorized by the Park Management Authority exclusively for scientific purposes and based on a scientific research plan previously authorized by the Park Management Authority itself;
- grazing is permitted when authorized by the Park Management Authority (it must be forbidden in areas destined for forest recovery);
- apart from zones subjected to forest recovery, where the Park Management Authority may authorize the necessary interventions,
- logging is forbidden;
- introduction of non-autochthonous plant species is forbidden;
- new roads or trails suitable for vehicles cannot be opened;
- visitors using any means of transport are admitted means along suitably identified routes;
- vehicles may be parked and persons may stop only in the suitable picnic and roadside rest areas;
- use of roads suitable for vehicles is permitted to operators working in the areas, on means of transport having cost-free Park-Authority-issued badges, to Park service vehicles and to other public service vehicles;
- collection of any plant species is forbidden except for scientific purposes and authorized by the Park Management Authority;
- free camping is forbidden unless authorized by the Park Management Authority.;

#### **5.4 A3 Zones: general protection**

**General protection** zones, A3, include areas which are not particularly important from an environmental viewpoint, although constituting a landscape complex to be maintained and improved; they border on A1 and A2 zones.

Their correct management ensures and favours that of more delicate bordering zones.

In addition, these areas present traditional economic activities (agriculture, forestry, grazing) which are an integral part of land environment and history and are to be safeguarded and improved.

These areas are destined for maintenance of the typical natural landscape, modelled and characterized by human intervention, and for maintaining and harmonizing the interconnection between human activities and environment.

Specific programs for natural environment safeguards will have to be applied to A3 Zones, in order to possibly utilize them for productive purposes. Together with them, programs for preserving, reinforcing and renewing the existing economic activities will be adopted. They will have to contribute to a determining extent to give new impulse to the economy and to orient it towards different sectors. Other programs will imply the introduction of new activities compatible with environmental protection.

As a whole, the A3 Zone is aimed at safeguarding landscape, maintaining and developing the traditional economy and tourism. In addition, this is the area including initiatives and facilities necessary for the development of tourism, education, recreation.

Areas destined for General Reserves (yellow on the maps) are located to the left of the river, up to an altitude of about 500 m, except for an area at the southern end of the park (near S. Georgios).

#### 5.5 B Zone: the river

The river Kereus is one of the most typical elements of the whole area, creating environments which are of considerable interest, such as gorges, alluvial plains, bank areas, etc.

In addition, the river is of considerable importance from a strictly ecological viewpoint, as it houses a population of otters, protected mammals threatened with extinction. In Greece and in their distribution area, they are present in small and sometimes fragmented populations.

The whole course of the river, including the banks, is indicated as an homogeneous separate zone (to stress its importance as a resource and as a component of the landscape and of the economy). This zone is subdivided into two sub-zones (B1 and B2) enjoying different degrees of protection.

Therefore, the river shall be covered by rules aimed at preserving the related ecosystems and, more generally, at protecting the landscape.

B1 Zones, with a higher degree of protection, are indicated in violet on the maps. They concern the boundaries of the river, included in the Park territory. The southern one has rare or endemic plant species, the northern one is characterized by the presence of otters.

Any modification of the environment will be forbidden in these areas, as in A1 Zones (Strict Nature Preserve). Visitors will be admitted only if accompanied by Park personnel (qualified guides, park rangers, etc.) and exclusively along predefined routes and areas.

B2 Zones, indicated in blue on the maps, correspond to the main tributary of the river Kereus, and to the section of river between the two B1 Zones mentioned above. These

areas do not need particularly rigid protection and here (as in A3 Zones, General Reserves) interventions for environmental improvement and utilization will be permitted. In particular, in order to favour tourism along the course of the river Kereus, Plans have been made for the establishment of picnic and roadside rest areas, educational areas and self-guided nature trails, as well as a specialized Visitors' Center for naturalistic matters suggested by the presence of the river.

As a whole, the Master Plan will have to include the following, for better management and protection of the B Zone:

- necessary protective interventions in the areas most interesting from a naturalistic and scientific viewpoint;
- identification of endangered areas or areas subjected to degradation, therefore measures necessary for their reformation, restoration and naturalreclamation;
- identification of possible sources of pollution and measures to eliminate them;
- a permanent water quality monitoring and control plan;
- opportunities, limits and modes to utilize water for agricultural purposes.

As far as regulations are concerned, it will have to be established that:

- hunting and shooting by any means are forbidden, as well as collection and destruction of eggs, nests, nestlings, and the capture of live animals;
- collection of eggs, nests and nestlings, and the capture of individuals of certain species may be authorized by the Park Management Authority exclusively for scientific purposes and based on a scientific research plan previously authorized by the Park Management Authority itself;
- cutting of vegetation on Sanks is forbidden;
- fishing is allowed if authorized by the Reserve Management Authority (a suitable regulation will have to be created);
- free camping is forbidden along the banks of water courses;
- use of roads crossing the river course and along it, is permitted to farmers working fields near the river, to vehicles directed to the mines and to Park service vehicles, these vehicles being provided with cost-free badges issued by the Park Authority ;
- vehicles can be parked and persons may stop only in the appropriate picnic and roadside rest areas;
- collection of any plant species is forbidden unless for scientific purposes and authorized by the Park Management Authority;
- visitors will be admitted to B1 Zones only if accompanied by the Park personnel and exclusively along signalled routes (abandonment of these routes must be absolutely forbidden);
- in the framework of B1 Zones, in limited areas considered to be particularly delicate since the ecological balance is fragile, visitors may be admitted exclusively for scientific research purposes, if authorized by the Park Management Authority.

## 5.6 C1 Zone: productive agriculture

Zones such as C1 are those in which agricultural pursuits prevail. Therefore there are zones mainly aimed at production, thanks to their geo-morphological and physical characteristics (plain land, close to the river, easy to irrigate).

These are agricultural areas in which intensive systems are being employed; nevertheless, these systems seem to be susceptible of specialization and rationalization.

Therefore, besides maintaining, improving and empowering traditional cultures, areas will be destined for the introduction of new cultures and management technics, capable of giving a new impulse to this sector and producing satisfying incomes.

Utilizing its own structures and a specific incentives' policy, the Park Management Authority will have to favour conversion to suitable technologies, as well as to provide farmers with approaches, orientations and rules aimed at correctly utilizing new management technics. In particular, an effort will have to be made to introduce low-impact cultivation methods, excluding or minimizing the employment of pesticides, chemical fertilizers, herbicides, etc.

In addition, farmers shall be given the opportunity to verify technologies aimed at reducing production costs, better integrating production with the environment, obtaining qualified and certified production.

For this reason, the Park Authority will create a Grand which will state origin and quality of Park products, and will ensure the control of compliance of the same products to the defined quality requirements.

In agreement with the Park Managing Authority, Farm Development Plans will be developed. They will include facilitations and technical assistance which the Park will be able to provide, in order to ensure the sector take-off and the success of selected methods and cultures.

Zones destined for productive agriculture (indicated in red on the maps) include the fields on the right of the river and a field near Prokopi.

## 5.7 C2 Zone: productive forest

According to modern silvicultural criteria ("naturalistic silviculture principles") areas for economic utilization of woods have been identified in the Park.

A forestexploitation plan will have to be developed for their management: it will provide modes, criteria and times suitable for utilizing the woods for productive purposes.

Areas destined for forest exploitation (indicated in yellow and red on the maps) include the woods located in the north-east sector of the park. In fact these forests seem to be the most suitable ones for production in the Park wood territory. This is due to the fact that they do not represent a vegetation resource of a particular naturalistic value and that, although they have been clearcut, they do not show any sign of hydro-geological damage.