

1. INTRODUCTORY STATEMENT

Following agreements between WWF (Local Section: Pinerolese Centro Agroambientale Frazione Luisetti) and Istituto Comprensivo di Cumiana *Domenico Carutti*, this Project proposal has been made to the Municipality of Cumiana and the local foothills management authority, the Comunità Montana *Pinerolese Pedemontano* **to create a wet woods plains area.**

Through all the phases of the Project, class 3°A (School Year 2004/05) and by extension, the entire student body at the Istituto Comprensivo di Cumiana *Domenico Carutti* will be actively involved .

The Project has the approval and support of the principal, Professor Paolo Speziale and of Professor Simona Sandrone both of whom are aware of its importance and functionality in terms of involving young people in a creative project during a crucial stage of their development, offering them constructive work to help them develop their sense of responsibility during their summer vacation.

The term **wet woods plain area** is used in reference to a plains area seen typically in the Neolithic era when, around one hundred million years ago, the sea pulled back from the Padana Plain leaving wooded and swampy areas in its wake.

The Project aims to recreate an ecosystem which will eventually become a living museum designed to attract people with different interests: scientific, pedagogic, touristic, environmental and naturalistic.

The Project is expected to last for ten years, during which time appropriate fauna and flora will be introduced so as to create the ecosystem.

2.1 HISTORICAL, TERRITORIAL AND LANDSCAPE CONSIDERATIONS.

The historical town of Cumiana is located 30 km from Turin. Sitting astride the Chisola torrent which flows down from Mount Freidour, it spreads along the Chisola valley, well-known for the range of its wildlife and its lovely landscape. Other important mountain peaks in the area include: Mt. Due Denti, Mt. Brunello, Mt. Tre Denti, Mt. Taudia and Mt. San Giorgio, the latter in the adjoining municipality of Piossasco.

The ecosystem is typical of the especially mild micro-climate of the Maira - Dora Ripaira mass areas. This micro-climate is what makes the introduction of Mediterranean-type birds such as the Sardinian warbler and plants, including olive trees and broom possible. The project area is located in the plain which extends from the valley marking the end of the municipalities of Frossasco, Piscina, Roletto and Piossasco.

These lands are mostly agricultural; cultivation in the area consists of cereal crops, field crops, kitchen gardens and timber. Some areas are uncultivated. Rows of ancient Mulberry trees are what remains of the now extinct silk industry. Willow and alder trees supply wood for local craftsmen.

Among the farm complexes in the area, mention must be made of the Boria farm in the plain and the Rubbia farm in the Pradera area. The latter is soon to become the headquarters of Parco Tre Denti Monte Freidour forestry management division.

Cumiana has one of the largest municipal administration areas in Italy, with 90 hamlets, farms and subdivisions. Among its historical buildings are the church of Santa Maria della Motta Confraternita, the medieval castle of Costa whose walls date back to the 14th century and the towers of S. Gervasio and S. Giacomo dating back to 1100-1200. There is also the castle of Marsaglia, a point of historical interest where the 1690 battle of Marsaglia was fought between the kingdoms of France and Piedmont.

2.2 WATERWAYS IN THE COMUNE OF CUMIANA.

The waterway network in the area is particularly interesting.

In addition to the Chisola, there are other torrents, namely the Noce, Arcolero, Moretta and the Rumiano as well as the Chiaretto river, all of which run through the planned project area. There is also a well-articulated system of rias, ditches, and canals which, until the end of the nineteen-fifties, supplied power to mills producing flour.

These waterways would benefit from specific low-environmental-impact management. For example, the planting of deep-rooted plants and bush cuttings would improve the quality of and consolidate their banks. Such management would reduce the probability of the rivers breaking through and overflowing their banks, an event which has occurred in the recent past. The best results in strengthening banks are obtained with well-distributed plantings of mixed vegetation, from short to tall, which include aquatic grasses at the water's edge medium-height willow (*salici-viburnetum*, *salicetum-alnetum*) bushes in the intermediate zone and trees such as maples, ash and oak (*aceri-i fraxinetum* and *quercetum*) at the higher points along the bank. Management of the type carried out along the banks of the Noce torrent near the border of the comune of Piovascote is best avoided.

2.3 THE WOODED AREA

The area to be wooded extends over approx. 11000 m², and is privately owned. Land Registry maps numbers 4 and 74, sheets 83-84, dated 23/04/1987 refer to the land in question which has to be bought. At present, it is designated sowable land by the Comune di Cumiana.

This piece of relatively flat land, at present not under cultivation, lies at 260 metres above sea level. It is rectangular with one side bordering the bank of the Arcolero torrent (right side on the map). The area already has some trees: ancient oaks, alders, hazel nut trees, elder and acacias. The latter would be eliminated.

2.4 AIMS OF THE PROJECT.

The Project foresees the creation of a naturalistic plains wood with moderately dense plantings of trees and bushes (approx. 1000 plantings: trees, bushes, etc. per hectare). The plantings would be carried out at different times through different phases, depending on the availability and supply of trees and bushes from the mountain and forest economy council (Assessorato all'Economia Montana e Foreste) with whom the WWF has already established contact and from whom it plans on receiving supplies. Initially, the above-mentioned density may have to be reached with artificial introduction of trees and bushes; however, as soon as it is practicable, natural seeding and renewal dynamics will take over. The tree population will also adapt climatically, eventually reaching its own natural balance. The expertise of specialists in planting and subsequently managing the woods will be of crucial importance.

From the beginning, the environmental aim will go hand in hand with the didactic, the scientific and the touristic: the woods will become a naturalistic haven within a typically Pinerolo agricultural area; however, it will also be a place to visit, as well as a place to learn from. It will include a network of pathways visitors can follow as they seek out different botanical and animal species and learn about the environment.

One of the most interesting parts of the project will be the creation of the wet area which will be populated with a mixture of endemic but endangered species including one or all of the following: amphibians, reptilians and butterflies. The choice will depend on ecological conditions in the woods and at the lake, as well as considerations concerning the reproductive viability of the species themselves.

The Project designers feel that because of its unique aspect, the plains wet woods area will become environmentally emblematic and very special, not only locally in the local area, in the Province of Turin and the Piedmont Region, but also, because of the presence of some unique species, in the whole of Italy. As a reserve for unique specimens of flora and fauna, it will inevitably attract tourists, specialists and teachers. Visitors are also expected to include the feathered type: birds migrating across the area will undoubtedly add to the resident bird population and increase the scientific content which will naturally have added value for teachers, tourists and specialists.

2.5 FEATURES: AGRONOMY BOTANY AND VEGETATION

The plains woods in the Piane area has been projected in accordance with the recommendations of the Forestry Department (Corpo della Forestale). Instead of a botanical route, it is planned as a reconstruction of a wet zone and a plains woods. Illustrated signposts will map pathways through the woods. Camouflaged observation points will be placed discreetly and strategically for sighting fauna without causing disturbance.

At present, the variety of trees include common or English oak, hornbeam, linden and, in the wetter areas, black alder; bush varieties include hazel trees, elder, cornelian cherry, willow and blackberry brambles.

Below is a list of botanical species which may be included or which may eventually reintroduce themselves naturally.

- | | |
|----------------------------|----------------|
| -spindle tree, | -ash, |
| -hawthorn, | -wild cherry, |
| -sloe, | -white poplar, |
| -privet, | -black poplar, |
| -blood orange, | -white willow, |
| -viburnum,(wayfaring tree) | -wild apple, |
| -common field maple, | -wild pear |

These plantings will be followed by plantings of tree species relative to the introduction of fauna as indicated at point 2.4: AIMS OF THE PROJECT.

2.6 VISITOR INFORMATION, FACILITATED ACCESS AND WORK RELATED EQUIPMENT.

Some artificial structures will be necessary in the Project area; they include: signs and notice boards with visitor information, maps etc., water pumps and drain systems to maintain water levels; diggers required for excavating the swampy wet area to a depth of between 5 and 80 cm.

Planned notice boards, observation posts, etc:

- Ø Wooden notice boards with illustrations and information.
 1. Notice at entrance listing contributors who have made the Project possible.
 2. Notice detailing activities of the local WWF section. (WWF Pinerolese-Centro-agroambientale Frazione Luisetti di Cumiana)
 3. Information board detailing botanical species.
 4. Information board detailing animal species.
 5. Information board detailing endangered species.
 6. Two information boards for impaired vision visitors, with raised illustrations of fauna and flora species.
 7. Portable listening equipment with recordings of bird calls and animal sounds.
- Ø Two wooden observation posts to enable visitors to watch wild-life without causing a disturbance.

Necessary works:

- Ø Excavation of the wet areas.
- Ø Planting of tree and bush species and creation of new woods beside existing one.
- Ø Installation of a lock and hydraulic system on the Arcolero torrent to vary water levels in the lake through the addition and draining of water as necessary.
- Ø Sinking and construction of a 7-10m deep well to the first water table, for maintenance of the water level in the lake.
- Ø Installation of 1.80m tall link fencing on three sides of the hydraulic systems area and of a support base, as required.
- Ø Building and installation of handrails for physically disabled persons.

2.7 ACCESS DURING PRE- AND POST- COMPLETION PHASES

The Project area is designed to be visited on foot. Access is via the Piane municipal road. Automobiles may be left in the Project parking lot where the black top road ends, beside the existing lakes.

Visitors should follow the road that goes between farms along the Airone lake, a fishing reserve, and then go along the *Strada dei campi* country road which leads to the site parallel to the Arcolero torrent.

Auto transport is permitted only by persons having a disability that renders them incapable of coming in by foot. In this case, vehicles must keep to the assigned track.

Access during the planting and maintenance phases will be via assigned tracks except when it is impossible to avoid the use of vehicles transporting signs, trees, etc or when agricultural vehicles carry out initial maintenance and clean-up operations.

2.8 SCIENTIFIC CONSIDERATIONS.

The Wet Woods Plains Area Project is of considerable scientific interest to specialists, teachers and students.

As the years pass, the new ecosystem will reach its own balance: endemic species which have been reintroduced will co-exist with rare species seen here for the first time. In addition, botanical varieties likely to attract insect life and other small creatures will be seeded or planted. The aim is to create a self-sufficient ecosystem where fauna and flora including varieties and species not already present in the Pinerolo foothills and indeed the entire region of Piemonte will thrive. As concerns amphibian species, they will be unique in the whole country.

It must be remembered that the Project area is at present a provincial hunting reserve; consequently, the Project would play an important role in providing a watering source and safe haven for the animals already there.

As well as supplying a permanent home for local species, the creation of the lake will attract aquatic birds during their migratory phases. The Cumiana district lies in the migratory path between the Padana Plain and the Camargue swampy area in the south of France. The Project would create a zone of considerable scientific interest whose value, to young people especially, cannot be underestimated. For all the reasons explained, the Project should be considered a natural complement to the regulations regarding the natural environment and the objectives of the Area Plan. There is more.

ASPETTI SOCIALI

The Wet Woods Plain Project is not aimed only at the scientific, didactic and touristic sectors as described in detail above; its most important aim is that of constituting a dream, a truly great dream, which over 500 children from kindergarten, elementary and junior schools will make come true. The entire comune believes in a project whose most important aim is to turn the energy of youth into a positive, creative force and prevent it from getting out of line. Some of the youngsters concerned will reach their majority in four years time and enter adult society. The fact of having taken part in a project of this scale could act as a guideline to their future; things like believing in oneself, having faith in a positive idea and seeing that hard work can indeed pay off, these things play a crucial role in youth development.

As adults, we tend to blame the so-called loss of values for the crisis which youth appears to be going through, for anti-social behaviour and social disorder among some youngsters of today. With this project, the youngsters will be busy for at least 12 years and perhaps even more. For some, it could even become a lifestyle or a business enterprise when the management of the area becomes cooperative. In practical terms, the long-term project management will require personnel trained in the different aspects of the environment, the didactic, scientific and touristic. Having participated in the creation of the Wet Woods Plain could act as a study guideline for those youngsters wishing to pursue a career in environmental studies.

This what the great dream is all about. And this is why we are sending this Project Proposal to you, in the hope that we will receive the concrete help we need, so it will not simply remain a dream, but rather becomes an opportunity, a reality that the young people involved can believe in.

The Volunteers from the W.W.F. Pinerolese – Centro Agroambientale – Frazione Luisetti di Cumiana (TO) Section.

3. Attachments

On the following pages, please find the below-mentioned attachments

No.1 a,b,c

Technical specifications relating to the two-sided notice boards, information signs and thematic tables which meet the standards set by provincial and municipal administrations and which are to be set up in areas of scientific, didactic and naturalistic interest.

No.2 Photographs relating to the area under study.

No.3 Blueprints.

- a. Blueprint of the territory indicating the area in question.
- b. Blueprint of the area showing the present situation.
- c. Blueprint of the area after the completion of work.