

# Constructed Wetlands and Ecological School in Albania

July 2008

## The project

On late 2005, the Albanian Municipalities surrounding the Lagoon of Narta, in the northwest part of the city of Vlora, and the UNDP MedWetCoast project, transmitted to the IDEASS International Secretary a letter of interest for the implementation of initiatives aimed at the improvement of the Lagoon environment. In fact, sewage waters coming from Narta village, Zvernec village and from some parts of Vlora city, have a highly negative impact on the Lagoon water quality, mainly on summer, when the pollution concentration is very high. The Lagoon area itself is intended to make part of a protected natural area, which could also represent a significant income for the inhabitants, if effective policies for environmental-safe and sustainable tourism will be implemented.



Following these requests, IDEASS, in collaboration with the Albanian Ministry of Environment, the Narta Lagoon Local Authorities, The Regional Agency for the Environmental Protection of Tuscany Region (ARPAT), UNDP MedWetCoast and GEF/SGP Projects (the latter also as a co-funding partner), decided to identify, design and realize a pilot Constructed Wetland system for the natural depuration of waters, in the Narta Lagoon area.

Thanks to the technical and scientific assistance provided by ARPAT, whose experts realized numerous missions to Albania, the system was finally located and realized in the primary school of the village of Narta, which will become the first “Eco-logical” School in the Country.



## Goals and Impact

The project main objective was to realize an “ecological school” provided with a natural water deputation system to treat wastewaters, making use of the “Constructed Wetland” methodology. The school represents an educational model for environmental education and cultural animation in the whole area.

The project was intended to achieve the following goals:

- Introduce in Albania an innovative system for the natural deputation of civil and industrial waste waters, as it is commonly implemented in numerous European Countries due to its characteristics of high effectiveness and extremely low costs;
- Depurate waste waters that are commonly dispersed in the soil and contribute to the improvement of the Narta Lagoon environment;
- Implement training activities directed to Albanian environmental engineers, technicians and students, to transfer the Constructed Wetland methodology

knowledge and allow to extend the system to other Albanian areas;

- Implement training and cultural activity in collaboration with Italian and Albanian Universities and Scientific Institutions;
- Provide the Albanian involved actors with an up-to-date highly effective and sustainable methodology to improve environmental conditions of areas intended for local economic development activities, as sustainable tourism, fishery, agriculture, etc.
- Set up an eco-logical school model that will represent a center for environmental and cultural animation in the area.

## Actors involved

- Albanian Ministry of Environment
- Albanian ministry of Agriculture (Institute for the transfer of Agro Technologies)
- Commune of Qender
- Narta Village
- University of Tirana, Faculty of Civil Engineering, course of Environmental Engineering
- University of Vlore
- Public Health Department of Vlore
- CSDC Civil Society Association
- AULEDA (Local Economic Development Agency of Vlore)
- Direction of the Narta Primary School
- ARPAT, Italy
- Acque Ingegneria srl, Pisa, Italy
- UNDP MedWetCoast Project
- UNDP GEF/SGP Project
- UNOPS PASARP Programme (until July 2006)
- UNDP/ART GOLD Albania Programme (since September 2006)
- IDEASS International Programme.

## Main activities

A Project Working Group (PWG) was established, composed by Albanian experts in different disciplines, to operate under the coordination of the Local Economic Development Agency of Vloera, "Auleda". The ARPAT experts and the PWG realized the following activities: System implementation preparatory work (including training on

Constructed Wetland System theory and technique); Provision of technical needs; System implementation (including training on Constructed Wetlands System construction directed to a local enterprise).

At the moment the rehabilitation of the green and of the sport and free-time external areas of the school are ongoing. In fact, according with the school director and the local authorities, the depuration system realization has been accompanied with the set up of other ecological devices, in order to create a sustainable development model for other community institutions and a centre for environmental education.

The depurated waters have been collected in a "free water system" organized as a small botanic garden with a didactical path and illustration. The whole green area of the school is going to be reorganized and rehabilitate, as well as the common spaces (sport and free-time areas). A public ceremony will be held to inaugurate the school. During the duration of the project, cultural and environmental activity will be realized, as seminars, training courses, concerts and environmental days.

## Results



The construction of a natural water depuration pilot system represents an important step towards the further implementation of this methodology, on a wider scale, in Albania. In fact, the pilot system allowed the Albanian experts, technicians and authorities to experiment the wastewater treatment, to check the analytical data about the system depuration capacity, to demonstrate the system suitability to be extended at a larger scale.

The depuration pilot system implementation will also consent to transfer to the Albanian involved experts, technicians and students, the technical knowledge on the system construction, set up and management, during one year of system working.

The pilot system implementation will finally consent to identify the needed local economic resources, in order to demonstrate as the Constructed Wetland depuration systems are a sustainable methodology highly effective against the environment pollution due to civil and industrial waste waters. In this way the whole area could be improved, also in terms of sustainable tourism.



## Perspective

The system will be monitored during a year by the Project Working Group, utilizing the competent technical personnel and structures (laboratories of analysis in Vlora, laboratories of the University of Tirana). ARPAT will supervise the data elaboration and analysis. A volunteer senior expert, provided thanks an agreement between UNV "Seniores" association and the ART International Initiative, will collaborate to the project during the monitoring phase.

In the next period, activity on environmental improvement items will be carried on by AULEDA in collaboration with the Albanian Ministry of Environment. Scientific trainings will be organized with the participation of Italian experts and in collaboration with ARPAT.

The direct beneficiaries of the project (the Narta village inhabitants) will be constantly informed on the project activity. Seminars and classes on

environmental education will be held in the Narta schools and the Narta's inhabitants will be invited to visit the system location and to ask about it. The public Event "Narta Lagoon Environment Day" will be organized. The local associations (fishery, agriculture, and tourism) will be informed on the advantages of correct environmental policies implementation, with respect to the local development improvement, and will be involved in the project promotional activities.

Study tours will be organized to the pilot-project site, with the participation of the University of Tirana, faculty of Environmental Engineering.

The Albanian Ministry of Environment will manage the system to inform local authorities of other Albanian regions about its characteristics, potentialities and advantages, and to invite the interested person to visit the system site. In particular, activities already started to diffuse the method to the area of the lake of Prespa (a southern important cross-border Albanian Region), where the Local authorities asked for the system implementation.

