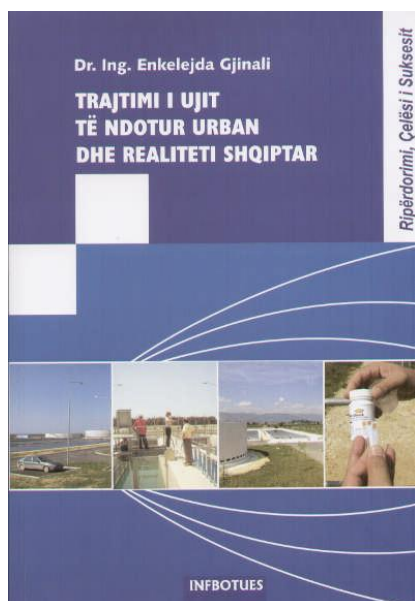


Implementing constructed wetlands methodologies at national level in Albania



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On November 2009 was published in Albania the book “*Waste Water Treatment and the Albanian Reality*”, which comes as the first one in the field of waste water treatment in the country, prepared by Dr. Ing. Enkelejda Gjinali, Advisor to the Prime Minister on Water Policies and related issues, and to the Council of Ministers of the Republic of Albania. Since 2000, she has been a key volunteer supporting the formation and development of the Water Supply and Sewerage Association of Albania, which is now a full member of the European Water Association.

In this book, a chapter is dedicated to the Constructed Wetlands System realized in Narta Municipality (Vlore Region) within the framework of UNDP ART Programme, with support of the Global Environmental Fund and the Constructed Wetlands System realized in Tirana, in the Elementary School of the SOS Children’s Village, supported by the Albanian Ministry of Public Works and Transport (MPWT) and the German agency GTZ.

The use of the Constructed Wetlands methodologies in Albania represents an effort to implement in the country the European Commission guidelines on “Extensive Design Processes of Urban Wastewater Treatment Adapted to Large and Medium Communities of 500 to 5,000 Inhabitants” adopted in all EU member states.

The first *Constructed Wetlands* Pilot System was implemented in Albania in Narta’s Elementary School in Vlora Region, on December 2007 and represented an important step in the further implementation of this methodology on a wider scale, as a decentralized model. The *Constructed Wetlands* methodologies adopted in Narta had become a priority of Albanian Government in the framework of a comprehensive approach to the needed reforms in the water supply and sewerage sector. On September 2008, Prime



Minister Berisha launched the Reform Plan for the Water Supply and Sewerage Sector in Albania, which includes recommendations to use the Constructed Wetlands methodologies for the natural depuration of *Waste Water*, adopted in the Narta Municipality.

The wastewater treatment using Constructed Wetlands in Tirana

On December 2010 has been inaugurated the wastewater treatment plant using Constructed Wetlands methodologies, in the Elementary School of the SOS Children's Village *Rr. Hermann Gmeiner* in Sauk, a suburb of Tirana. The Constructed Wetlands System was financed by Albanian Ministry of Public Works and Transport General Directorate for Water Supply and Sewerage (GDWSS) of the Ministry of Public Works and Transport (MPWT) and the German Federal Ministry for Economic Cooperation and Development (BMZ) via GTZ Albania (Capital cost: EUR 60,000).



Albania is still confronted with major challenges in providing sufficient access to drinking water and sanitation, particularly in providing wastewater treatment. In its National Strategy for Development and Integration, the Albanian government aims to reach 98% water access in 2015 from 73% in 2007. In the same period, the connection rate to sewage systems is to improve from 43% to 80% and waste water treatment from almost 0% to 50%.



In Tirana, the capital of Albania, untreated sewage is discharged into the Lana River. So far, the public sewer system does not cover the suburban areas. For peri-urban as well as rural areas the most important means of sewage disposal are seepage pits. In these facilities the solids are kept back, while the liquid waste infiltrates into the ground where groundwater is contaminated by nutrients and pathogens. The SOS Children's Village is located in Sauk, a suburb of Tirana, with no access to the municipality sewerage system.

The SOS Children's Village is a worldwide operating orphan and abandoned children's charity which provides shelter and education to children living within and in the surrounding of the community. On total there are around 500 people living, visiting or working at the Village. Prior to the project, the SOS Children's Village had a sewage system collecting wastewater in a septic tank with three chambers and then discharging the effluent into a natural stream next to its property. This had negative effects on the environment.

To upgrade the existing treatment unit, GTZ, the SOS Children's Village and the Tirana Municipality agreed to build a constructed wetlands system on the village's premises under technical guidance of Oekotec GmbH, an international company (www.oekotec-gmbh.com), and in collaboration with the Polytechnic University of Tirana. The aim was to improve the environmental situation of the village while at the same time raising awareness for decentralised sanitation technologies to relevant stakeholders and the public in Albania.

The planning phase started in September 2008, followed by the implementation phase which began in September 2009 and ended in December 2009. The treatment plant started operation on 29 January 2010. Treatment achievements of the Constructed Wetlands system are within international WHO standards for wastewater quality. Currently the wastewater of 500 inhabitants is treated.

The construction and start-up was scientifically monitored by the Polytechnic University of Tirana, Faculty of Civil Engineering/ Environmental Engineering Department. A first PhD thesis on wastewater treatment using constructed wetlands for small communities was launched.

The Constructed Wetlands pilot system in Narta

The first pilot Constructed Wetlands system was introduced in Albania as new innovative system for the natural depuration of waste waters, within the framework of the UNDP ART Programme, in collaboration with GEF/UNDP (Global Environmental Fond - MedWetCoast Conservation of Wetland and Coastal Ecosystem in Mediterranean Region) project and the Albanian Ministry of Environment.

In Albania, many important natural areas suffer critical environmental condition, due to human pressure, soil erosion and water pollution. One of the most relevant, among them, is the wetland complex of Vjose-Narta, northwest of Vlora that "has been highly evaluated for its natural and biodiversity resources by numerous national and international documents" (*UNDP/GEF MedWetCoast-Albania Management Plan, 2005*). On 2005 the Albanian national and local authorities expressed their interest in the "Constructed Wetlands" methodologies, promoted by IDEASS, in order to experiment an effective tool to improve the environmental situation of the Narta Lagoon. In particular, the Albanian Municipalities surrounding the area decided to implement the Constructed Wetland System in the Narta's School, attended by about 200 students, plus 20 teachers and 3 helpers.

The Project was provided with technical assistance of ARPAT(Regional Agency for the Environmental Protection of Tuscany) . The ARPAT experts, provided technical assistance in system implementation to Albanian environmental engineers, technicians and students, in order to transfer the Constructed methodology knowledge.

The actors involved were: the Albanian Ministry of Environment, the Albanian Ministry of Agriculture (Institute for the transfer of Agro Technologies) the Commune of Qender, the Narta Village, the University of Tirana, Faculty of Civil Engineering, course of Environmental Engineering, the University of Vlore, the Public Health Department of Vlore, the CSDC Civil Society Association, the Direction of the Narta Primary School and AULEDA (Local Economic Development Agency of Vlore).

The development and the management of the first phase of the project were under AULEDA's responsibility. It took care of the organization of the meetings, seminars on environmental education with the communities of Narta lagoon and surrounding villages. On the second phase of the project implementation AULEDA supervised and monitored step by step the performance quality of the activities carried out from "E.M.B. Konstruksion", Albanian business enterprise specialised in construction of natural depuration system. The system is actually in standby because of the ongoing works for the construction of the



aqueduct in Vlora Region. The Non Governmental Organization B.A.ZH gives continuity to the IDEASS country initiatives, including the Constructed Wetlands System of Narta.

For more information about [Constructed Wetlands](#)

For more information about the projects in Albania, please contact:

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