

# PROJECT INFO

United Nations Development Programme



Photo by: UNDP

## CHALLENGE

The Golema Reka is the largest and most important river in Lake Prespa watershed, with a total catchment of 182 km<sup>2</sup>. Its delta covers a wide range of both mountainous and lowland wetland areas. Only thirty years ago, rich biodiversity was still present in both the river and the streams, but since then the water quality has continuously been deteriorating. The entire region has been suffering painful environmental setbacks as a result of pollution, pesticides, poor waste management, and ineffective planning of land and water use.

In 2005, UNDP joined forces with the Government, the Municipality of Resen, civil society organizations and local stakeholders in order to improve the overall environmental status of the Golema Reka. Several assessments were conducted initially, and wastewaters produced by households, industries and agriculture were pinpointed as the main river pollutants.

Local farmers having orchards in close proximity to the river often use the water for washing pesticide spraying equipment, and they dispose off pesticide bottles and boxes into the riverbed. Other harmful waste associated with agricultural activity in the region is the current pesticide packaging and biodegradable organic waste disposal, which, due to the lack of an efficient management system, is commonly dumped along the river corridors, local roads and bridges. This causes a negative impact on aquatic and other natural ecosystems.

The river channel is loaded with various types of solid waste, and the condition is most critical in the city of Resen, where the major factories are located. Because of the lack of an appropriate collection system, the wastewaters generated from diverse sources, households in particular, cannot be directed to the existing treatment facility in Ezerani. The lower part of the river has been identified as the most polluted given that the quantities of both household and industrial wastewaters flowing into the river are the highest. Due to erosion processes, human activities, and virtually inexistent maintenance, the river channel is seriously damaged. As a result, agricultural land on both sides of the river becomes flooded after every heavy rainfall.

## PROJECT OBJECTIVES

The main objective of this project is to improve the overall environmental status of the Golema Reka, by undertaking a series of measures and activities, including restoration of parts of the river bed and providing support for the establishment of an efficient and sustainable packaging waste management system.

## RESULTS:

The activities that have been undertaken throughout the past years have already led to visible results in terms of promoting the health of the river, protecting the wildlife and leveraging local economic development.

More than 600 meters of the river bed in the urban section of the city have been restored, making the surrounding land less prone to floods and also attractive for tourists again.

A total of 1,5 kilometres of sewerage network for collection of wastewaters from households and industries has been constructed, now ensuring that wastewaters are properly treated prior to being discharged into the Lake.

Additionally, support has been provided for the establishment of an efficient and sustainable pesticide packaging waste management system thanks to which pressure on the ecosystem has further decreased.

Also, a conceptual design for waste treatment options has been developed, anchored in extensive market research and trend analysis, opening doors to public private partnerships and income generation.

Hydrological and hydro- meteorological stations have been set up, now providing reliable data for decision making processes. Also a monitoring system has been put in place, allowing measuring of long-term positive impacts expected to be achieved once all activities for river restoration and protection have been implemented.

## PROJECT TITLE:

Restoration of Golema Reka

## PARTNERS:

Municipality of Resen, NGOs, Farmers, local communities, Hydrometeorological Institute.

## BUDGET:

US\$ 2,930,000

## FINANCED BY:

Swiss Development Cooperation Agency

## IMPLEMENTING PERIOD:

October 2005- December 2010

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