



*This project
is supported by:*

The NATO Science for Peace
and Security Programme

Enhancing Environmental Security through Nitrogen Removal

(ref. SFP-982816)

Scientists from Greece, Albania and Egypt have cooperated since December 2007 to develop a new process for the removal nitrogen from municipal wastewater. The main goal is the transfer of the Partial Nitrification Denitrification (PND) technology using Sequencing Batch Reactors (SBRs) from Greece, where they were first developed, to Albania and Egypt. During this study, one pilot-scale SBR unit will be installed in a selected location in each country, and young researchers trained in Greece will undertake the operation. Mathematical models and process simulation will be used subsequently to optimize the process. The upgrading of surface and groundwater quality will enhance environmental security in Albania and Egypt, two countries that suffer most particularly from drinking water shortages due to extremely polluted water resources.

Project Co-Directors:

- Prof. Gerasimos Lyberatos, FORTH/ICE-HT, Heraklion, Greece (NPD)
- Mr. Julian Shehu, Agricultural University of Tirana, Tirana, Albania (PPD)
- Mr. Mahmoud Ismail, Egyptian Environmental Affairs Agency, Cairo, Egypt
- Dr. Michael Kornaros, LBEET, University of Patras, Patras, Greece

Approval Date: 20 June 2007

Effective Date: 1 December 2007

Duration: 3 years