

**EGYPT: CATALYTIC N<sub>2</sub>O DESTRUCTION PROJECT IN THE TAIL GAS OF THE NITRIC ACID PLANT OF ABU QIR FERTILIZER CO.**

Kyoto Mechanism:	Clean Development Mechanism
Project Category (UNFCCC):	Chemical Industry
Location:	Alexandrien
Emission Reductions purchased:	3.900.000 t CO <sub>2eq</sub>



The project consists of the installation of a tertiary N<sub>2</sub>O reduction technology in the tail stream of the nitric acid production plant of Abu Qir Fertilizer Co. S.A.E. in Abu Qir. Nitrous oxide is formed alongside the main, desired product nitric oxide (NO) during the catalytic oxidation of ammonia and is emitted to the atmosphere in the tail gas. The world's nitric acid plants represent the single greatest industrial process source of N<sub>2</sub>O emissions. The global warming potential of N<sub>2</sub>O is set at 310 according to the Kyoto Protocol rules.

Without the sale of emission reductions by the flexible mechanisms of the Kyoto Protocol,

such measures would not be carried out because there are no other incentives and/or legal requirements for the operators to undertake an investment for the avoidance of the N<sub>2</sub>O-Emissionen.

The technology applied in this project is developed from a German company in cooperation with an Austrian producer of fertilizer.

This end-of-pipe technology offers the general advantage, compared with other possible measures, that minimum interference with the nitric acid production process is caused. This catalytic N<sub>2</sub>O destruction project activity is expected to reduce more than 90% of the N<sub>2</sub>O emissions that would be emitted without the project activity. In the period from 2006 until 2012 the project will generate approximately 6 mill. Tonnes of CO<sub>2eq</sub>.

3% of the income from the sale of the CERs will be given to a special social fund. This fund shall be dedicated to the social and infrastructural development of the area of Abu Qir. Another 6,5% will be given to the Egyptian Environmental Protection Fund, which is managed by the ministry of environment.

This CDM-project is the first one in the category of N<sub>2</sub>O-reduction in nitric acid plants worldwide. An Austrian Consultant developed the methodology for the calculation and the monitoring of the generated emission reductions and the shareholder of the sponsor company are also Austrians.