

## **Brief OF PROJECT DESIGN DOCUMENT (PDD)**

**Name of Project:** Catalytic N<sub>2</sub>O Abatement Project in the Tail Gas of the Nitric Acid Plant of the Pakarab Fertilizer Ltd (Pvt.) in Multan, Pakistan (Version 01).

### Objectives:

- N<sub>2</sub>O is reduced to Nitrogen and Oxygen and will be vented to atmosphere. N<sub>2</sub>O is removed from the tail gas downstream of the absorption tower by catalytic destruction (either by catalytic decomposition or by catalytic reduction).
- To help in achieving the objectives of combating climate change under UNFCCC by reducing significant amount of greenhouse gas (Nitrous oxide) emissions.

**Date of Submission:** 24<sup>th</sup> March 2006

**Submitted by:** Pakarab Fertilizer Limited, Pakistan

**Project Sponsors:** Mitsubishi Corporation.

**Total Project Cost:** US\$ 15 Million

**Estimated Annual Emission Reduction:** 1,329,653 Tons of CO<sub>2</sub>eq/ yr

**Operational Lifetime:** 25 Years

**Starting date:** 1<sup>st</sup> January 2007

### **Crediting/Validity Period:**

- Kyoto first commitment period: 6 years (2007– 2012)
- Estimated validity period (including Post Kyoto period): 25 years (2007– 2031)

### **Benefits from the Project:**

<b>Activity</b>	<b>Revenue (US\$ million)</b>
Sale of Carbon Credits (@ US\$ 10/tonnes of CO <sub>2</sub> eq):	13
<b>Total Estimated Annual Revenue:</b>	<b>13</b>

### **Other Qualitative Benefits:**

- The project activity aims at reduction of significant amounts of Nitrous oxide (N<sub>2</sub>O) which is a highly potent Green House Gas (GHG) and is consistent with the objectives of the Clean Development Mechanism and thus mitigating environmental pollution with positive spin off for community health.
- The project activity will introduce modern equipment which will destroy Nitrous Oxide, thus ensures transfer of technology to Pakistan. It will also increase local economic activity as local engineering companies can benefit from engineering design during installation phase of the project activity. Additionally, the project activity is expected to simultaneously reduce 90% of NO<sub>x</sub>.
- Local employment will be created through direct and indirect economic effects in the area. The project proponents have indicated in the proposal to allocate a share of total income from selling of Certified Emission Reductions (CERs) as Social Fund for financing of local development projects like; schools, hospitals and improvement of infrastructure in the area.
- Project activity will reduce the poverty in an economically depressed region with a very little industry and high unemployment.