The Nitric Acid Climate Action Group (NACAG)

Paving the Way for the Sustainable Transformation of the Nitric Acid Sector

In an effort to boost climate action and incentivize the realization of low-cost emission reduction potentials, the German Government has launched the Nitric Acid Climate Action Group (NACAG). NACAG's objective is to incentivize the installation and operation of effective nitrous oxide (N2O) abatement technology in every nitric acid production plant worldwide. In this way, NACAG aims to promote the climate-friendly transformation of the global nitric acid sector.



Nitrous Oxide (N2O) Emissions

Nitrous oxide is a potent greenhouse gas (GHG) and ozone-depleting substance. Its global warming potential (GWP) is 273 times that of carbon dioxide (CO₂). One of the primary sources of N₂O emissions is the production of nitric acid, which is predominantly used for manufacturing nitrogenbased fertilizers. There are more than 500 nitric acid production plants in around 70 countries worldwide. In many cases, the N2O emissions are released unabatedly into the atmosphere. However, N2O emissions from nitric acid production can be reduced relatively easily and at a low cost compared to other greenhouse gas abatement options. Abatement costs range US\$1-3 t/CO2eq per ton of CO2eq, depending on the employed abatement technology and technical plant characteristics.

NACAG's Approach

NACAG helps partner countries to overcome initial structural and investments barriers by providing them with financial and technical assistance in exchange for the political commitment for the long-term climate-friendly transformation of the nitric acid sector. The initiative provides technical and political support to all partner countries and supports countries with the ODA status that need economic assistance to procure abatement technologies financially.



NACAG's Technical Support Unit advises partner governments on policy instruments for mitigating N2O emissions in the nitric acid sector and its integration of the sector into the Nationally Determined Contributions (NDCs) of the Paris Agreement. Furthermore, NACAG offers financial support to purchase and install state-of-the-art N2O mitigation and monitoring technology in eligible production facilities, fully covering these costs. For plant operators to qualify for this funding, the government of the respective country must sign a political commitment – Statement of Undertaking (SoU) - to ensure the continuation of the mitigation activities under their own responsibility in the future.

A Global Action Group

By transferring the responsibility for the mitigation activities to the partner countries as well as leaving the resulting emission reductions for use within the national mitigation strategy, NACAG aims to ensure the climate-friendly transformation of the global nitric acid sector. This approach corresponds to the spirit of the Paris Agreement, which assigns responsibility for emission reduction efforts to all countries while acknowledging the principle of common but differentiated responsibilities.

Its global approach ensures the creation of levelplaying field over time for all stakeholders and thus reduces negative economic impacts and at the same time supports plant operators adapting to changing international market conditions such as implied by a possible carbon border adjustment mechanism. All interested partners, including governments, plant operators and donors, are welcome to join this global action group and, in doing so, contribute to sustainable climate change mitigation. The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH hosts the Technical Support Unit of the NACAG. This project is funded by the International Climate Initiative (IKI) of the German Federal Ministry of Economy and Climate Protection (BMWK).

Alongside Mexico, Thailand, Georgia, Uzbekistan, Tunisia, Zimbabwe and Argentina, Peru became the 8th country to sign the Statement of Undertaking (SoU) and through this committing to climate-friendly nitric acid production. Another nine countries have joined the Action Group by signing the NACAG Declaration, admitting to the idea and the goals of NACAG and are considering signing the SoU as a next step.



Global overview of nitric acid producing countries Number of nitric acid plants worldwide: approx. 500



For more information please visit our website www.nitricacidaction.org or write an e-mail to contact@nitricacidaction.org