

Nitric Acid Climate Action Group

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On behalf of Torsten Brezina

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giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

On behalf of



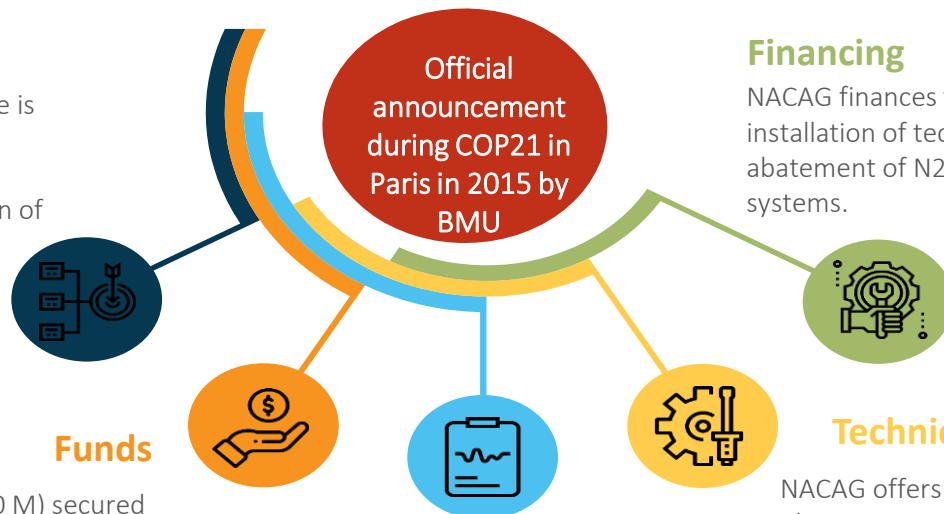
Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety

of the Federal Republic of Germany

NACAG Nitric Acid
Climate Action Group

Vision

The vision of the initiative is the global reduction of nitrous oxide emissions emitted in the production of nitric acid.



Funds

Funds (€50 M) secured by the BMUKN and administered by GIZ

Policies and NDCs

NACAG aims at the coverage of N2O emissions from the nitric acid sector in the NDCs and national policies.

Financing

NACAG finances the purchase and installation of technology for the abatement of N2O emissions and MRV systems.

Technical Support

NACAG offers technical support to plant operators and governments on abatement technologies and regulations.

Gefördert durch:



Implementiert durch:



Budget: 50,7 Mio. €

NACAG's Approach and Offer

NACAG offers technical and financial support to plant operators located in nitric acid producing ODA countries that signed the Statement of Undertaking (SoU), committing to climate-friendly nitric acid production.

Strategic advice to the governments on long-term reduction of nitrous oxide emissions from nitric acid production.



Technical consultancy services to the plant operators to identify best available options to reduce nitrous oxide emissions (feasibility study already conducted).

Financial support to the plant operator to purchase and install nitrous oxide abatement technology and a modern emissions monitoring system.



KEY ACHIEVEMENTS



11 countries committed to long-term low-carbon nitric acid production.



10 Nationally Determined Contributions (NDCs) now include the nitric acid sector (mitigation of 5 million tons CO_{2eq}/y).



12 plant operators actively engaged in N₂O reduction.



1.600+ people trained on N₂O abatement, MRV systems, and international environmental standards.

Contribution to the methodology to cut nitrous oxide (N₂O) emissions from nitric acid production agreed by the UNFCCC Article 6.4 Supervisory Body in May 2026

PROJECTED IMPACT

Direct emission reduction **per year**
at the end of the initiative.



2.6 million tons CO_2eq emissions
directly reduced annually.

*Comparable to emissions from 2
million round-trip flights between
Europe and North America.*

6 million tons of CO_2eq emissions
indirectly reduced annually (beyond
the project life-time).

4 million tons fertiliser produced
annually with a lower carbon footprint
using nitric acid as raw material.

*2 times the annual fertilizer
consumption of Germany and 30% of
the consumption of the EU.*

GIZ Portfolio in the Agricultural Sector

Maike Möllers, Agriculture Division
10.06.2026



Credits: Harsh Kamat



Integrated Soil Fertility Management

- Production and adequate use of **fertilizers**, **crop rotation**, integration of **nitrogen fixing plants**, production & use of **biochar**, **liming**
- **Capacity development**
 - **Global programmes ProSoil and SoilMatters**, e.g. in Burkina Faso, Ethiopia, India, Kenya, Tunisia
 - **ProResiliente**, Bolivia
 - **Support for Agroecological Transformation Processes**, India
 - **Knowledge Centre for Organic Agriculture and Agroecology in Africa**

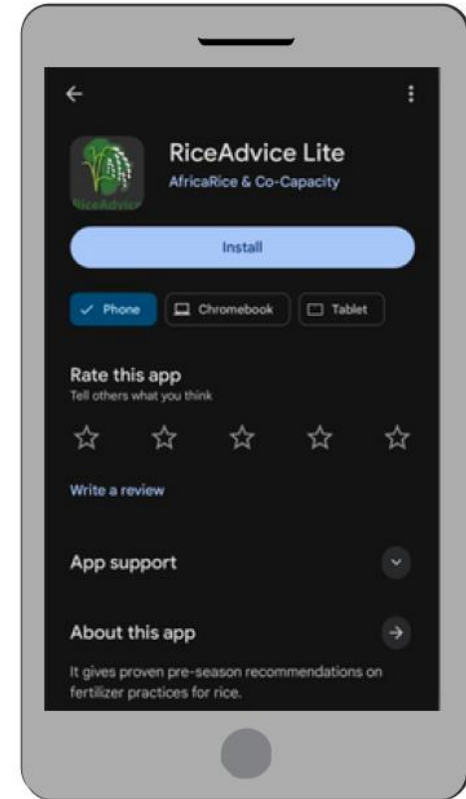


Context-specific needs assessments

“RiceAdvice”

- Free, user-friendly **Android application**
- **Practical, location-specific guidance on nutrient management**, including fertilizer application and agricultural practices
- **Access** via mobile device, printed guides, SMS, extension support
- **Local languages** included

Other projects offer **decision-support-tools** and/or **soil maps**



Enabling conditions

- **Supportive policies and financing**
- **Global Programme Sustainable Agricultural Systems and Policies:**
Transformative agricultural policies
 - Reform of **subsidy policy** for agricultural inputs, Kenya
 - Reference framework for **organic inputs**, Burkina Faso
 - **Soil Health Policy, National Soil Health Scheme and Soil Information System**, Nigeria
 - **Input reduction**, incentive schemes, India



Credits: Harsh Kamat



Mitigating emissions from electricity grids

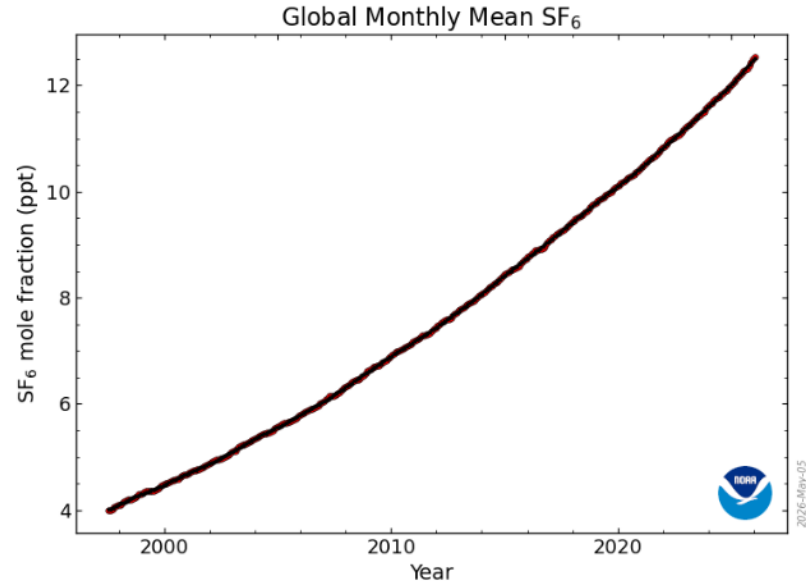
Philippe Lempp



Federal Ministry
for the Environment, Climate Action,
Nature Conservation and Nuclear Safety

The problem with sulphur hexafluoride (SF₆)

- Industrially produced insulating gas
- Today used predominantly in the power sector
- Steep increase of atmospheric concentration
- Extreme global warming potential (GWP 24.300) and atmospheric life-time (>1000 years)

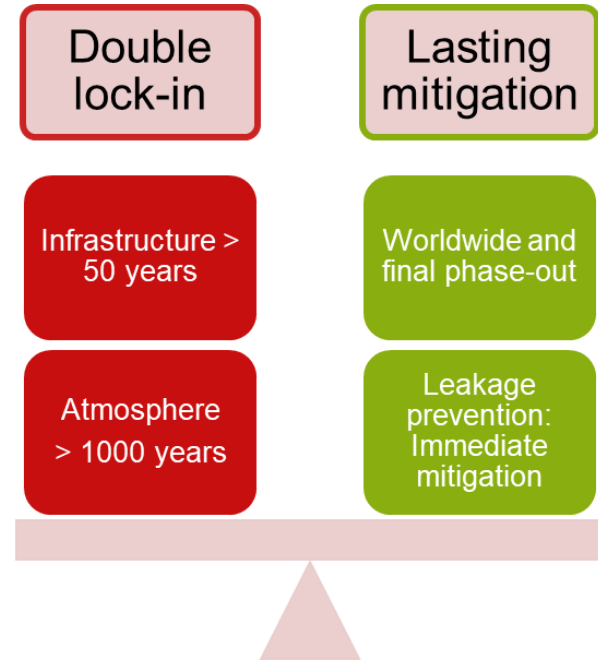


Source:

https://gml.noaa.gov/ccgg/trends_sf6/

Grid expansion and SF₆ leakage: a critical moment

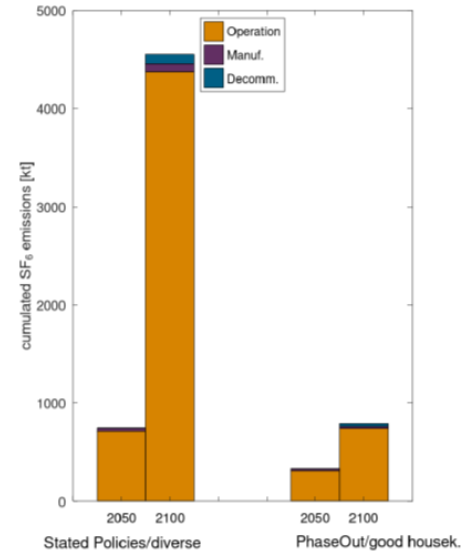
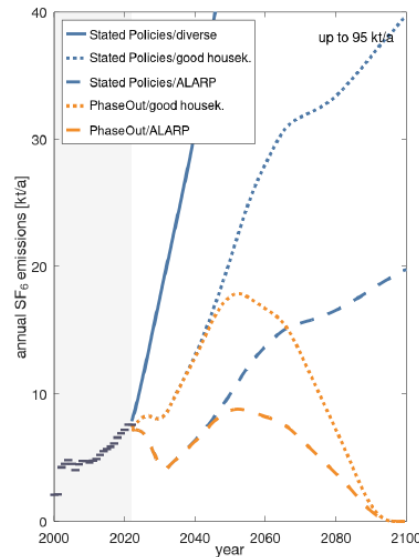
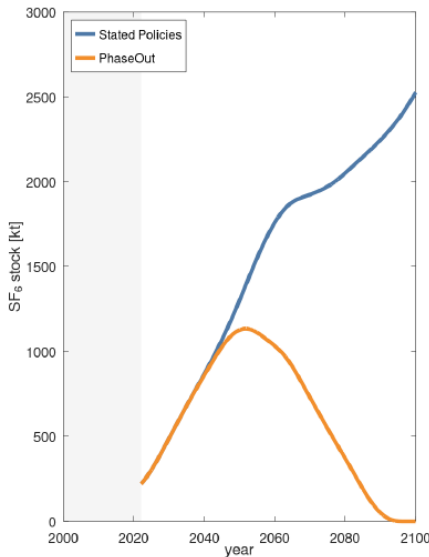
- Emissions from leakage during production, use, maintenance, and decommissioning of switchgear
- Expansion of power grids, especially in developing and emerging economies (IEA: +80m km by 2040)



Hugely diverging scenarios possible

- BAU with five-fold increase of stock by 2050, and ten-fold by 2100
- SF6 phase-out with zero stock and zero emissions by 2100

Global SF₆ use and annual / cumulative emissions



An IKI initiative to engage with like-minded partners on SF₆ in the power sector through a two-pillar approach:

1. World Bank: contribution to ESMAP and SCALE trust funds to pilot SF₆ mitigation with power sector actors, particularly utilities, in partner countries
2. GIZ: organising a global network, building a knowledge hub, and supporting national governments on SF₆ mitigation strategies, in cooperation with the UNFCCC technology mechanism

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