

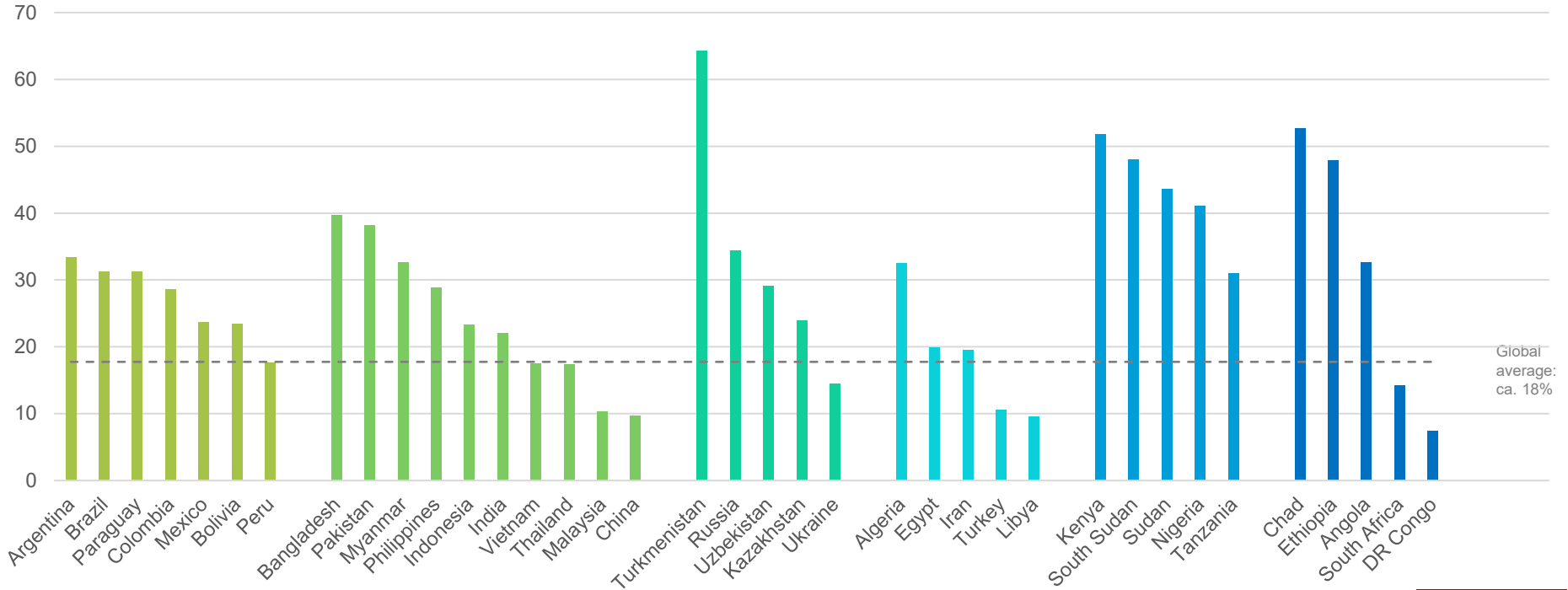
Methane mitigation linked to biogas production in Germany's International Development Cooperation

Patrick Büker, GIZ

Global Methane Forum, 20.03.2024, CICG - Salle 4

Methane emissions account for a high share of total GHG emissions.

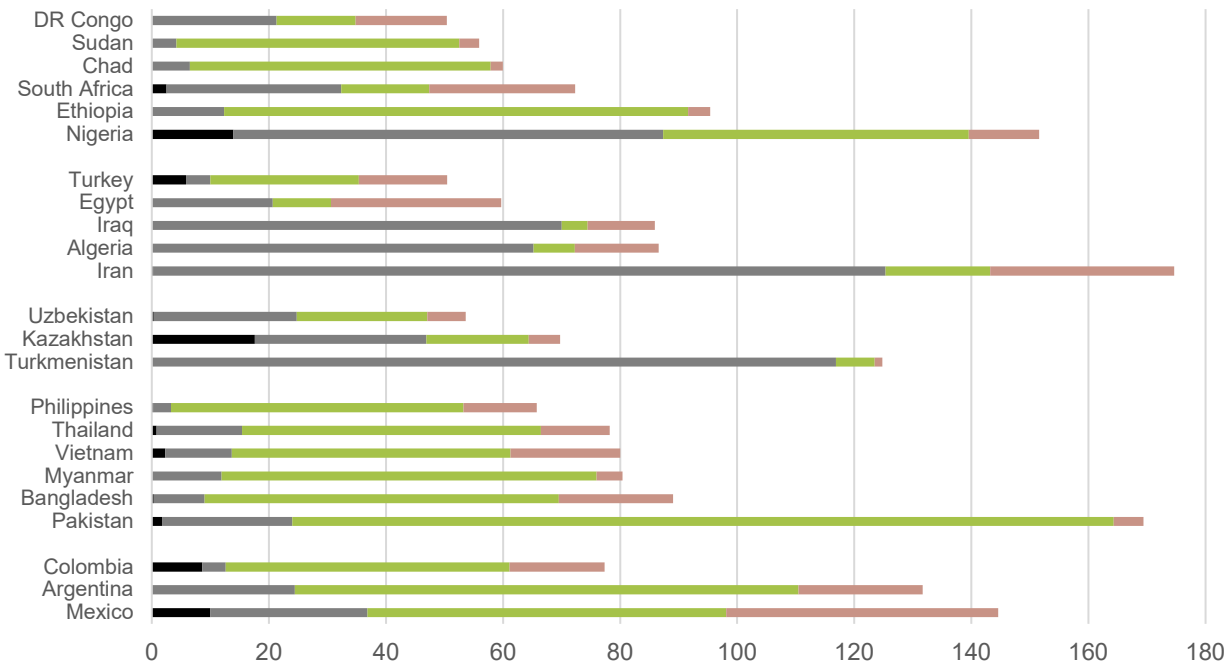
Share of CH₄ Emissions as % of net GHG-Emissions above and below global average
GIZ partner countries with CH₄ emissions (2020) ≥ 30 MMtCO₂e/year



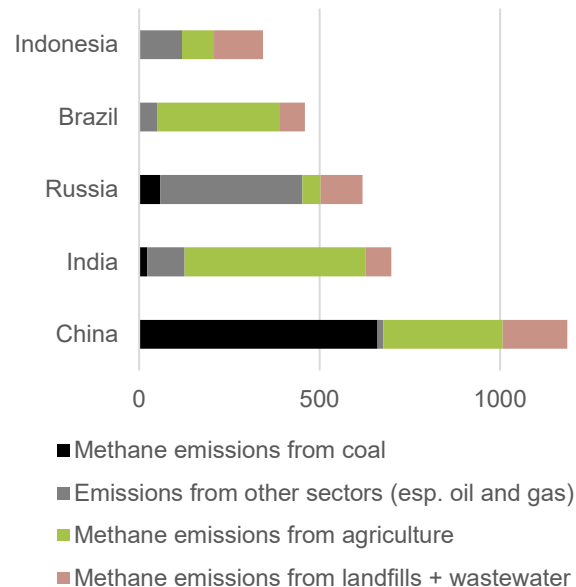
Source: own calculations based on Climate Watch 2023 (data from IEA, EPA and FAOSTAT), <https://www.climatewatchdata.org/>

Sectoral emissions vary by country with regional tendencies.

Sectoral distribution of CH₄ emissions in GIZ partner countries with CH₄ emissions (2020) between 50 and 300 MMTCO₂e/year

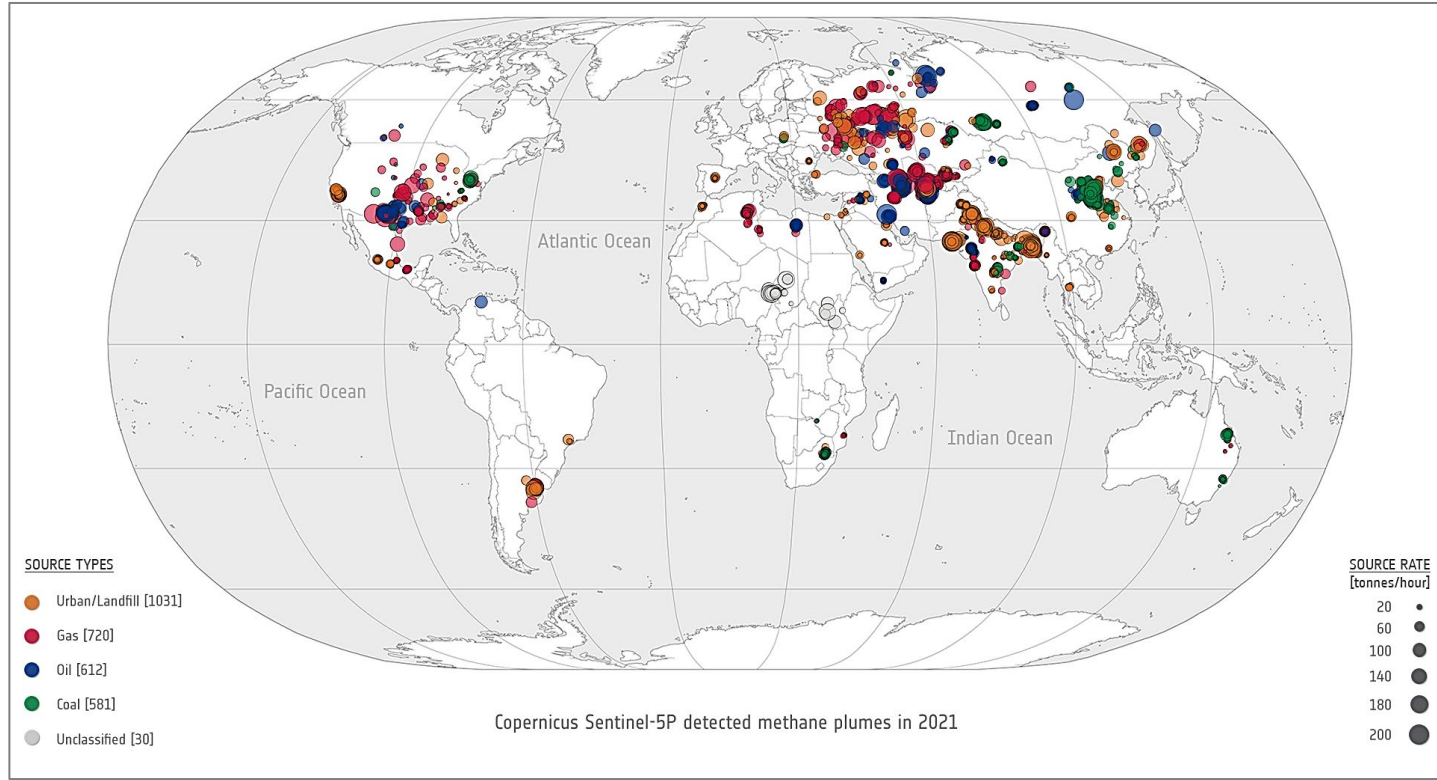


Sectoral distribution of CH₄ emissions in GIZ partner countries with CH₄ emissions (2020) ≥ 300 MMTCO₂e/year



Source: Climate Watch (data from IEA, FAOSTAT, EPA & Global Carbon Project), <https://www.climatewatchdata.org/data-explorer/historical-emissions>

Identification of methane super-emitters



Source: European Space Agency / SRON 2023. Note that agriculture emissions are not yet detectable due to their diffuse nature.

Project Examples of GIZ's Waste Methane Mitigation Portfolio

FELICITY, Management and Energetic Utilization of Urban Waste, Naucalpan; Extension of the Sewer Networks and WWTPs, Antonio Ante; 2017 – 2021: Ecuador, Mexico



Management of Organic Waste in India (MoWi)
2023 – 2025: India



African Biodigester Component (ABC)
2022 – 2025: Kenya



Water and Wastewater Companies for Climate Mitigation (WaCCliM)
2014 – 2022: Jordan, Mexico, Peru, Thailand



Waste Solutions for a Circular Economy
2020 – 2025: India



Municipal Solid Waste Source Separation and Compost Project
2021 – 2024: Ghana



Strategic Exploration of Economic Mitigation Potentials through Renewables (ExploRE), esp. bioenergy and biomethane; 2018 – 2025: Indonesia



Creating employment opportunities in waste management
2015 – 2023: Jordan



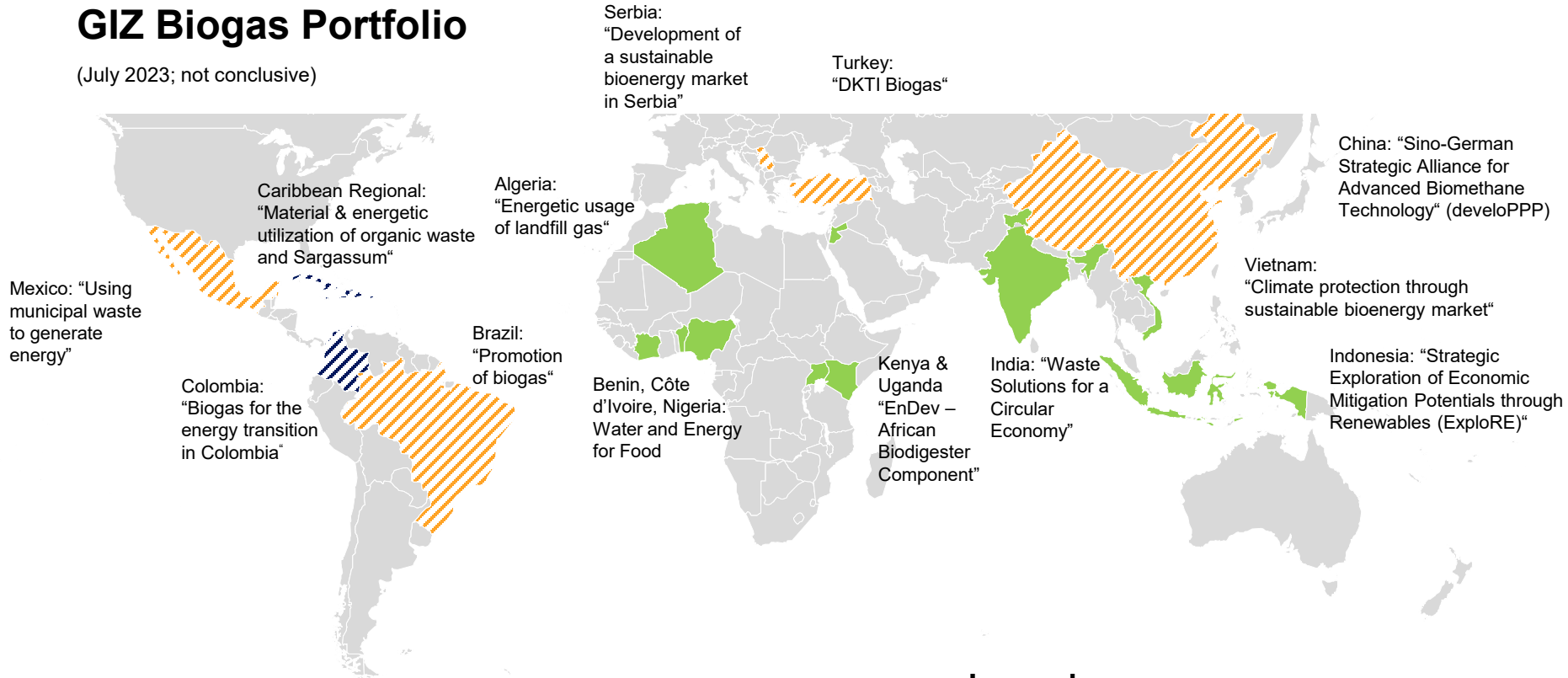
Significance of biogas in GIZ partner countries and project portfolio

- Climate protection through avoidance of methane, substitution of fossil energy and substitution of mineral fertilizers
- (Storable) energy source for electricity generation, vehicle fuel and heating
- Business opportunity (at different levels)
- Employment creation
- Nutrient recycling
- Avoidance of waste on dump sites/landfills
- Organic fertilizer production



GIZ Biogas Portfolio

(July 2023; not conclusive)



[African Biodigester Component \(ABC\)](#)
[\(youtube.com\)](#)

Legend

-  Ongoing activities
-  Activities ended
-  Planned activities