

MILITARY AND CONFLICT-RELATED EMISSIONS: KYOTO TO GLASGOW AND BEYOND

Axel Michaelowa Research director



Official UNFCCC Side Event of Ukraine and CAFOD, 9 November 2022

www.perspectives.cc

perspectives climate group

Topics

- How did the study come about?
- Peacetime military emissions : several % of national emissions
- War emissions can reach hundreds of million t CO₂e, more than annual emissions of many countries
- UNFCCC emissions accounting ignores military emissions
- Recommendations for reform





Background of our study on military emissions

- Need to report international emissions from military emissions in peacetime and war under the UNFCCC
 - What is the **level** of military emissions?
 - Make proposals regarding **accounting** for military emissions
 - Discuss **responsibilities** of various international actors
- I and Tobias Koch had published a research article on military emissions, border changes and the Kyoto Protocol in the reputed journal "Climatic Change" in 2001
- In late 2021 we were commissioned by the UK-based NGO "Tipping Point North South" to update and broaden the work embarked upon in the 2001 article
- Then, Russia invaded Ukraine ...

perspectives climate group

Key outcomes of our study on military emissions

- Military emissions in peacetime and war are a relevant international emissions source
- Under the UNFCCC countries do not have to publish data on direct and indirect GHG emissions related to military activities, wars, and their side-effects
- There is no robust global estimate of military GHG emissions, just a patchwork of partial, inconsistent estimates
 - Direct emissions from military operations (vehicles and infrastructure) reach
 ~1% of national emissions (US and UK)
 - Indirect emissions, for example from war-related destruction of carbon sinks, and infrastructure can exceed the direct emissions

Burning a city: ~10 Mt CO₂, burning Kuwait fossil fuel reservoirs: ~400 million t CO₂
 www.perspectives.cc



Magnitude of military and conflict emissions



www.perspectives.cc

Indirect emissions are important



- short-term: significant!
 - shift back to fossil fuels
 - Less public money for mitigation due to shift of public budgets towards military spending
- medium term: mixed effects
 - acceleration of distributed renewables that are resilient to disruption
 - less collaboration to develop
 large-scale renewables



perspectives climate group

Dealing with such emissions under the UNFCCC

- So far, national accounting allows exclusion of military emissions due to confidentiality rules
- Significant parts of military emissions relate to international bunker (transport) fuels that are not covered by the Paris Agreement
- Rules for reporting military and conflict-related emissions under the Paris Agreement are urgently needed
 - Global Stocktake (COP28)
 - Inclusion in national inventory guidelines under the IPCC
 - Section in 7th IPCC Assessment Report
- Aggressors shall be made responsible for war and occupation-related emissions through peace settlements



Thank you! michaelowa@perspectives.cc

www.perspectives.cc

8