

Policy Brief on making military emissions transparent

Brief Summary

Military emission contributes up to 5% of the global carbon emissions. Yet, they were historically excluded from GHG reduction goals. Transparency of reporting is key in military sector for designing effective decarbonisation target and plans, and for future investment and research on lower carbon warfare.

The proposal suggests that states should include military GHG emissions on the UNFCCC's agenda so that military emissions can be officially recognized and accurately reported in national inventories. A comprehensive assessment framework on military emission should be developed to foster the entire life GHG reduction across all military activities and supply chain.

Problem and Importance

Military emission contributes up to 5% of the global carbon emissions, which is comparable to the total emissions from civil aviation and shipping globally. Meanwhile, global military expenditure rose by 2.6% in 2020 to almost US 2 trillion despite the fall of GDP and pandemic.

Apart from increasing expenditure is not primarily spent on decarbonization, militaries have also lagged behind other high-polluting sectors in tracking their emissions since they were historically excluded from GHG reduction goals. At present, under Paris Agreement, no governments are obliged to report their military emissions.

Countries such as China, India and Saudi Arabia with huge military expenditure and numbers of personnel, do not provide sufficient emission reporting. Even countries such as UK and US which have better track records in military emission reporting, they are opaque due to national security concerns and fail to disclose emissions on military equipment procurement and other supply chains that account for majority of emissions. Hence, reporting of military emissions has been incomplete, unclear and inconsistent.

Transparency of reporting is key in military sectors for several reasons. First, militaries emissions must be included in the national decarbonization target. To decarbonize, transparency is a crucial step to learn where the sources of emissions coming from, including but not limited to military procurement, operations and conflicts. Furthermore, since one of biggest challenges for military sector is 'lock in' (emissions are fixed for decades due to the long process of procurement and lifespan), making emissions transparent as early as possible can better assist the states to design effective decarbonization strategies and achieve relevant target.

The Proposal to scale up the transparency of reporting military GHG emissions

First, states should include military GHG emissions on the UNFCCC's agenda so that military emissions can be officially recognized and accurately reported in national inventories. This is a crucial first step for rectifying the norm of underreporting and discussing the commitment of military emission reduction target under 1.5C target.

The Intergovernmental Panel on Climate Change (IPCC), being the UN's scientific advisory body, its report should no longer be silent on emissions related military activities. With the inclusion of military emissions on UNFCCC's agenda, the states should collaborate with the researchers so that researchers can document the impact of armed conflicts on environment and society, and hence recognize the urgency of military emission issue.

As the NATO, US and UK have been actively stepping up their political leadership in the sphere of military decarbonization, they should take the lead to bring this issue to the agenda, so as to create the momentum and encourage other states to engage and share best practice.

Second, to oblige states to report their military emissions, a comprehensive assessment framework on military emission should be developed to foster the entire life GHG reduction across all military activities and supply chain. The IPCC should closely engage with the states, military sector and scientists and update the criteria for military emissions reporting.

The GHG protocol of classification of scope 1,2,3 should be adopted for emissions tracking. Scope 1 should cover direct emissions including the militaries' day-to-day footprint, associated with military bases and estates' management; scope 2 should include emissions from generating purchased electricity and scope 3 (where most countries do not report) should include procurement supply chain and military conduct during conflicts.

Scope 3 emissions is an understudied area yet it is important to be included since this is where the majority of emissions come from. First, GHG emission from warfighting itself such as infrastructure damage, land-use changes and post-war reconstruction should be reckoned. For instance, Ukraine war emissions for 7 months of full-scale war totals at least 100 million tCO₂ which is equivalent to the emissions over the same period in the Netherlands. Notably, the post-war reconstruction of civilian infrastructure accounts for half of the GHG emissions. Second, procurement supply chain usually far exceeds an entity's own emissions especially when military engages with a much more complicated supply chain. Close engagement with supply chain to understand the GHG emission is vital for military GHG reduction technological advancement and also promoting momentum for the private sector placing scope 3 emission disclosure at a higher weight as elaborated below.

Potential Results

Transparency is the key to make military sector in line with the global trend of decarbonization. Militaries cannot afford to be left behind in two aspects.

Global militaries are heavily fossil-fuel reliant. However, demand for fossil-fuel technologies and related investment in R&D and availability of supporting infrastructure will decrease in the near future due to the global commitment of transiting to net-zero. The cost of decarbonizing the military will only increase over time, raising the hurdle of transition. Meanwhile, lack of consistent reporting of data on emission will only hamper the process of monitoring and assessing progress in emission cut in defence sector.

Recent years, there has been increasing public awareness on false claims and greenwashing. The general public places greater emphasis on accountability towards the government, institutions and also private sectors. Enhancing transparency on military reporting can retain public confidence and avoid reputation crisis.

Furthermore, the disclosure of scope 3 military emissions can create momentum for private sectors to engage in the disclosure and maximize the GHG reduction opportunities along the supply chain.

Private sector generally regards scope 3 emissions as impossible to tabulate although it represents majority of one's broader carbon impact. If the military sector, being the government sector, takes the lead to engage across the whole military supply chain, this will empower civil society's voices to exert more pressure on the private sector to actively disclose their scope 3 emissions.

Military engagement can maximize GHG reduction opportunities which include both the military technology sector and the wider supply chain such as waste, logistics, welfare. Since the military technology sector is at an early stage which has long been focused on performance and safety instead of carbon footprint, the early start of disclosure allows time for this sector to plan ahead and develop alternative technologies in order to help achieve emission reduction.

Lastly, the transparency of emission will disclose the disastrous environmental impact resulted in the arm conflicts. This can serve as strong basis for civil society voices on fighting for reducing military tensions and shrinking military budgets. It is believed that in the long term, instead of finding lower carbon ways to fight wars, avoidance of war is inevitable.