The carbon bootprint of the military: uniting climate and peace activism
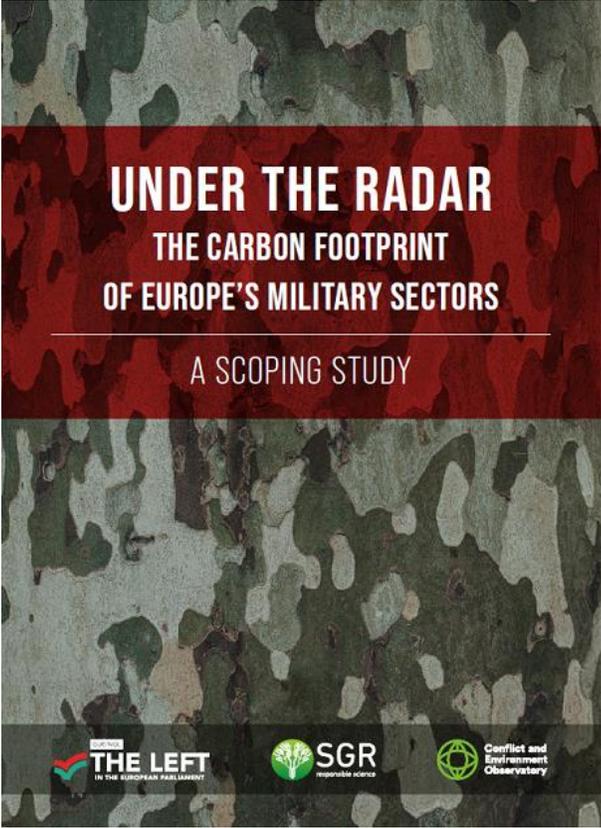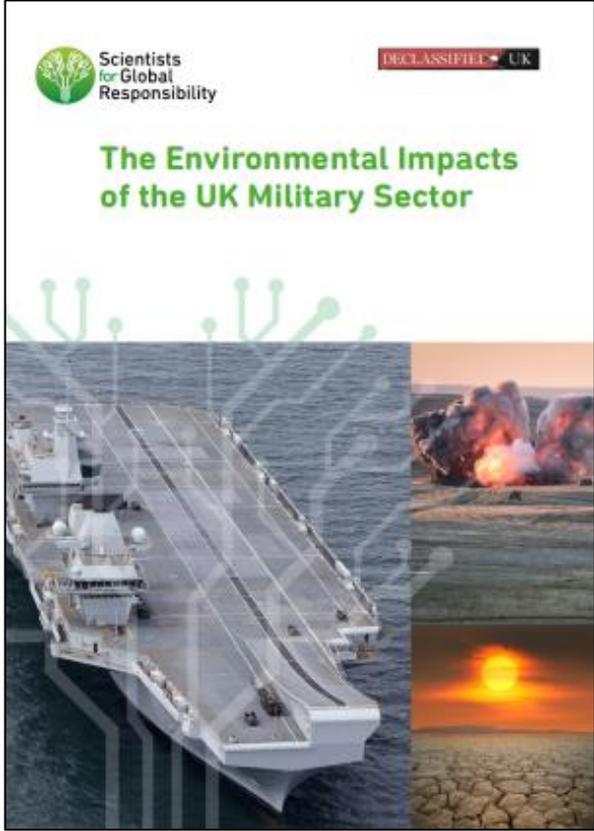
Dr Stuart Parkinson
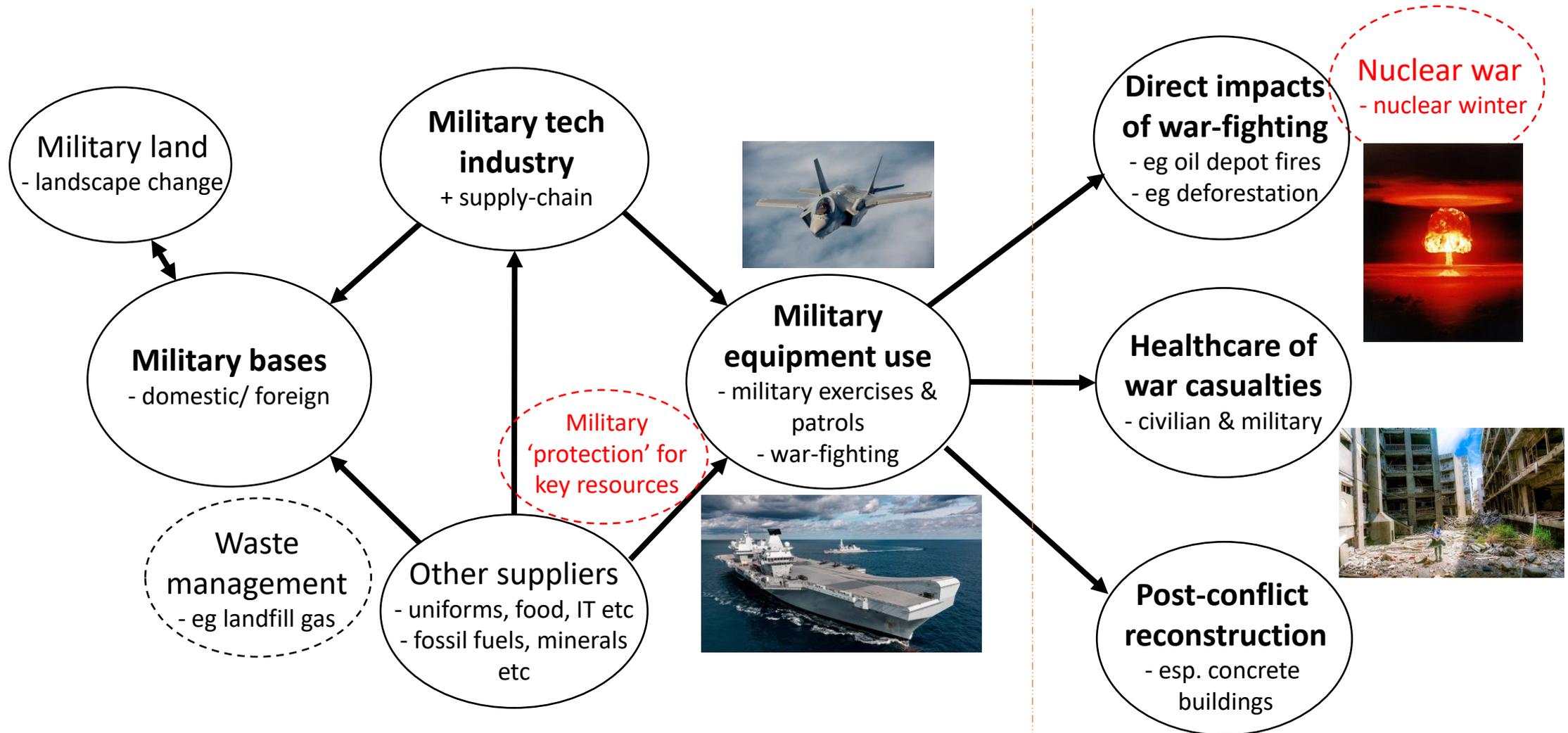
Scientists for Global Responsibility

https://www.sgr.org.uk/

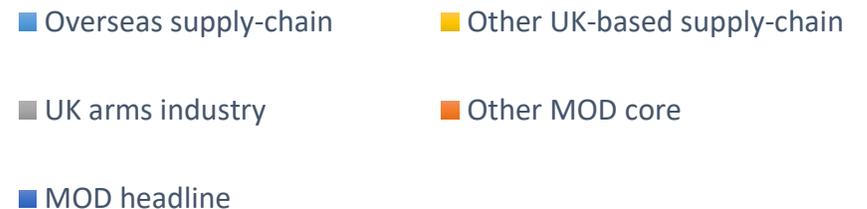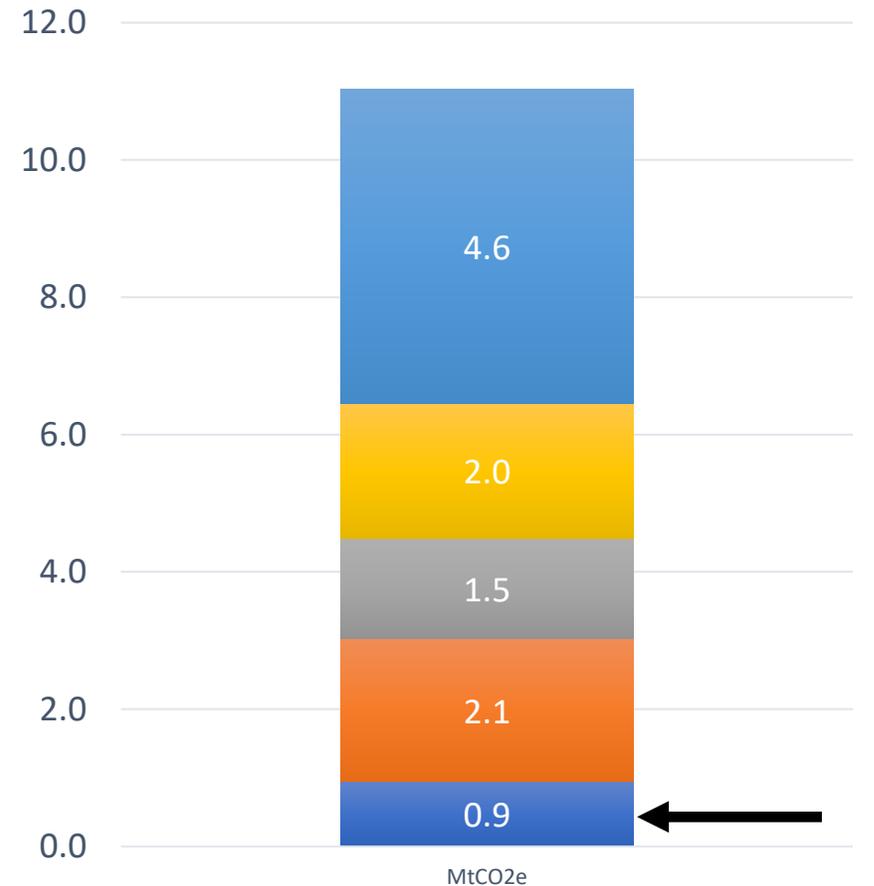# Two SGR-led reports published in 2020 & 2021

Military carbon bootprint: key components

UK military carbon footprint

- Total: 11 million tonnes
  - carbon dioxide equivalent
- MOD 'headline figure' is 0.9 million tonnes
  - Only includes (most) military bases
- MOD total is 3 million tonnes
  - Also includes: air-force, navy, army operations
- UK arms industry: 1.5 million tonnes
- NB Does *not* include impacts of war-fighting
- Total is equivalent to **6 million cars**

12.0

10.0

8.0

6.0

4.0

4.6

2.0

2.0

1.5

2.1

0.0

0.9

MtCO2e

■ Overseas supply-chain   ■ Other UK-based supply-chain

■ UK arms industry   ■ Other MOD core

■ MOD headline

Annual figures for 2017-18 from SGR (2020)

Carbon footprints of 6 largest military spending nations in EU

MtCO2e

France Germany Italy Netherlands Poland ? Spain

■ Indirect, misreported & unreported emissions
■ Military emissions as reported to UNFCCC

Annual figures for 2018-19 from SGR/CEOBS (2021)
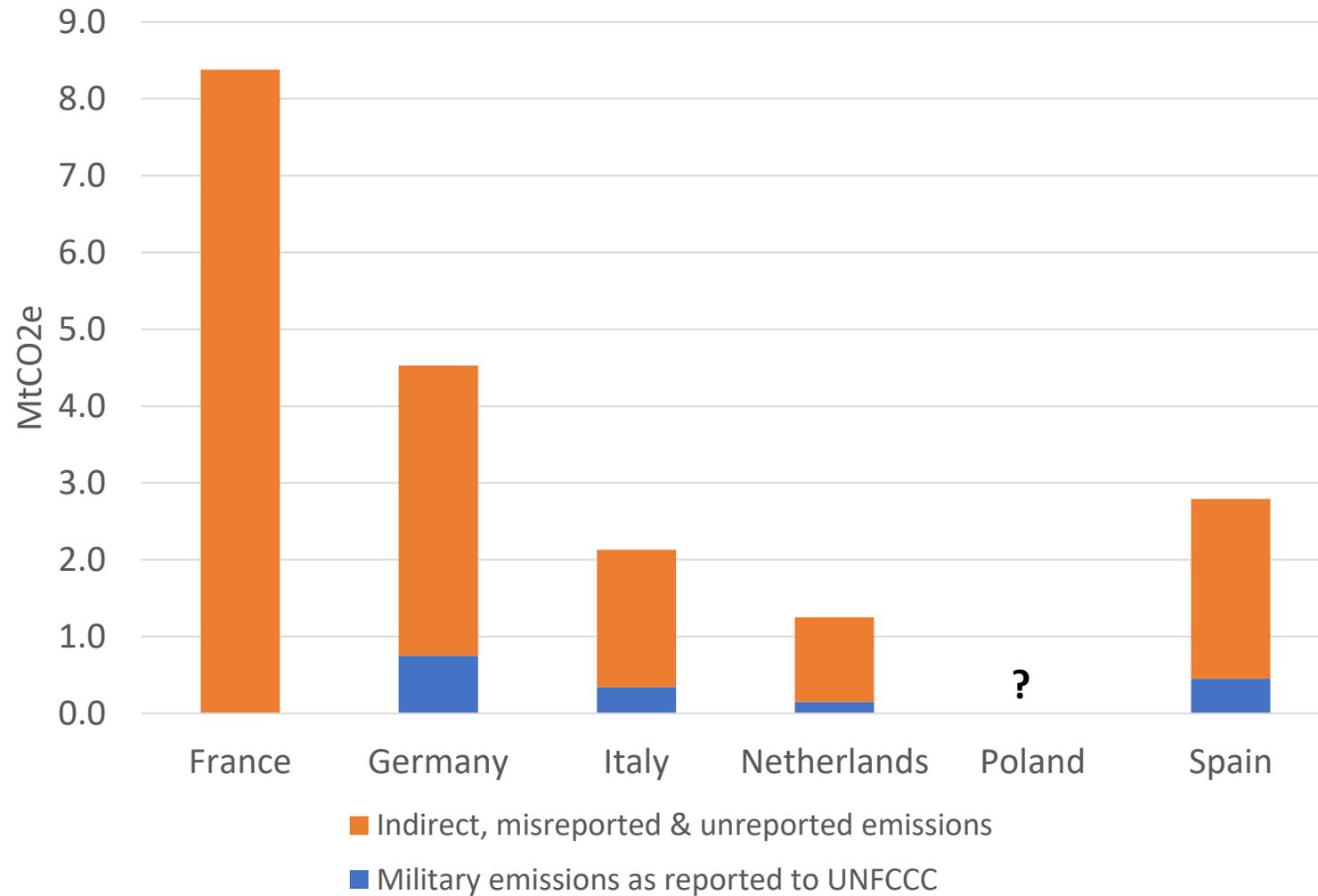
Comparing US/ European military carbon footprints

- US total: 205 million tonnes
  - SGR estimate
- DOD is 56 million tonnes
  - i.e. armed forces
- Official figures minimal
- US footprint
  - nearly 6 times EU+UK
- **Global military carbon bootprint**
  - Several % of all carbon emissions
  - Equivalent to large European nation
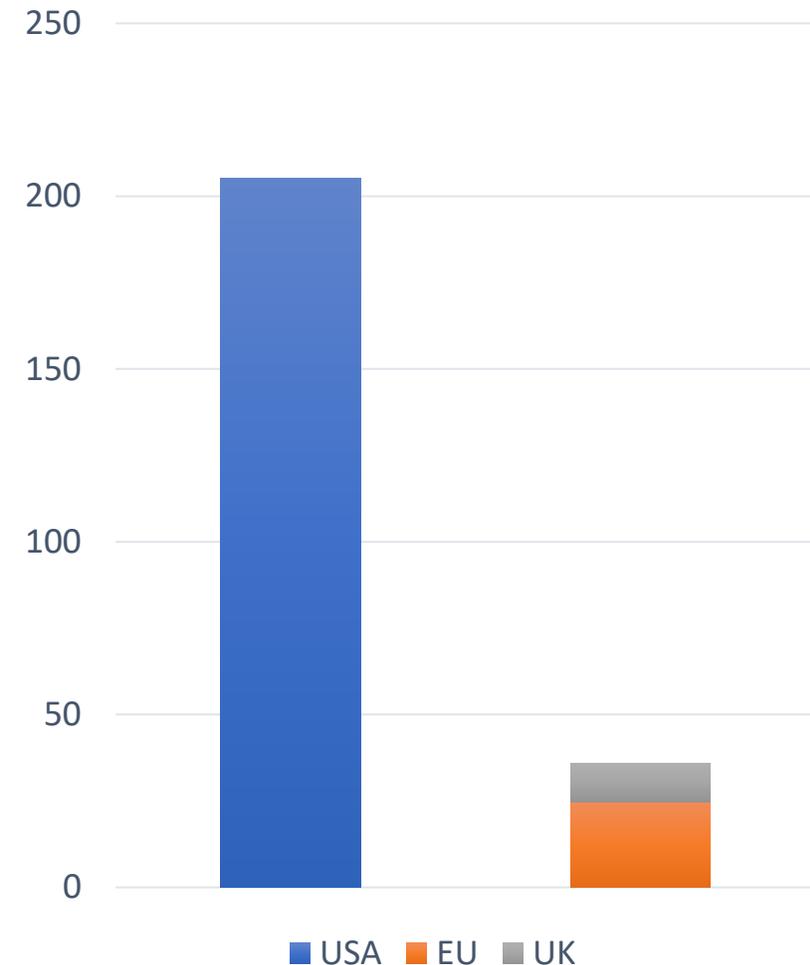
# Why are military carbon data so poor?

- Minimal reporting requirements under 1992 Climate Convention
- US govt insisted on exemptions for military in 1997 Kyoto Protocol
  - No emissions targets
- Voluntary targets under 2015 Paris Agreement
  - No significant update to reporting requirements

So

- All these estimates are conservative
- UK military data is among the best…

Nuclear weapons:
an even bigger threat to the climate?

- Recent climatic research shows vulnerability to global *cooling* from smoke from any nuclear conflict
  - **'Nuclear winter'** effect
- Smoke comes from intense fires caused by nuclear explosions, and is injected into upper atmosphere
- Potential for massive crop failures

GISS Global Average Temperature Anomaly
+ 5 Tg, 50 Tg, 150 Tg smoke in 2006
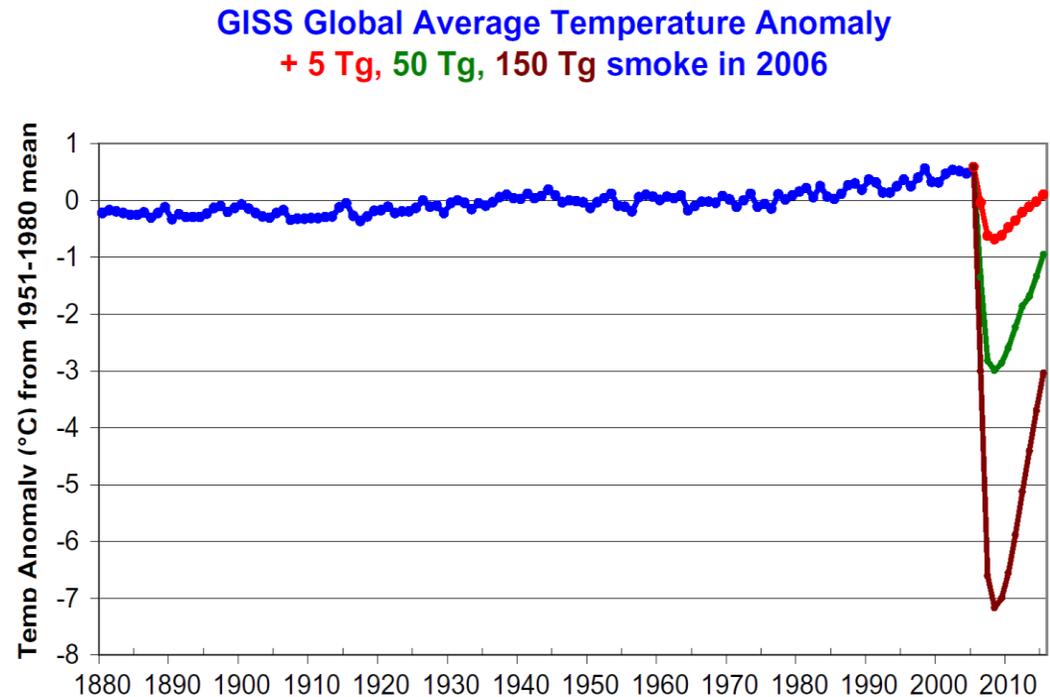
Robock (2015)

Scenario 1 (Red) – 'small' nuclear war, e.g. India-Pakistan, UK arsenal
Scenario 2 (Green) – 'medium' nuclear war, e.g. all US-Russian high-alert nuclear weapons
Scenario 3 (Brown) – 'large' nuclear war, all deployed weapons

Military approaches to tackling climate change

- UK Ministry of Defence climate strategy document
  - Aim: "seek to use the green transition to add to capabilities"
  - Aim: "fight and win in ever more hostile and unforgiving physical environments"
- Reducing carbon emissions
  - Many key proposals problematic
  - Use of biofuels especially in military planes
  - More drones/ robotic tech
  - More nuclear-powered vessels
  - Use of offsetting
- No consideration of alternative approaches to improving security
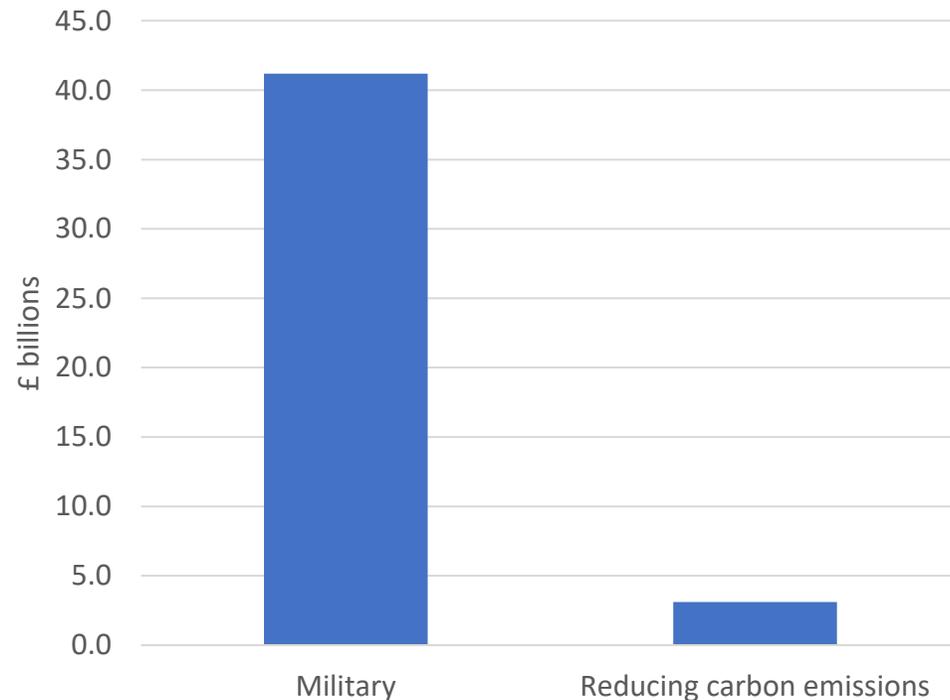
Report of the
Defense Science Board Task Force
on
DoD Energy Strategy

"More Fight – Less Fuel"

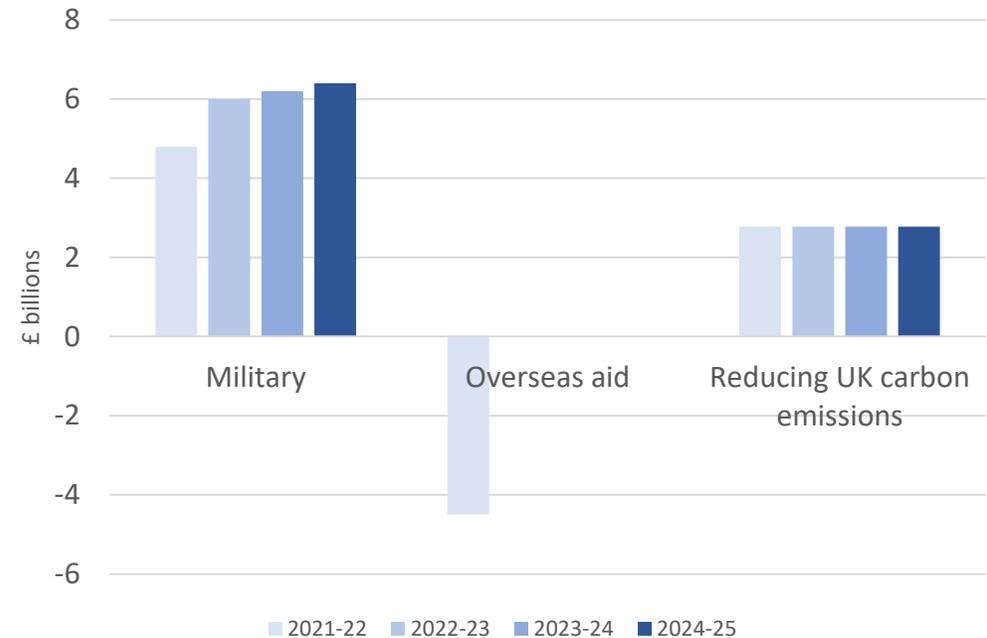# Comparing military and climate spending

UK govt spending, 2020-21

Main sources: HM Treasury (2020); CCC (2020); Guardian (2021)

UK govt spending changes relative to 2020-21

Main sources: HM Treasury (2020); BEIS (2020); CGD (2021)

- Military spending increases already fuelling emission rises
- 24% increase in UK MOD emissions from 2017 to 2019 as some earlier spending cuts reversed

Demilitarisation for decarbonisation

- Serious efforts to cut military carbon emissions require:
  - More focus on diplomacy and arms control/ disarmament treaties
  - Reductions in size/ spending on military & arms conversion
  - Abolition of nuclear weapons
  - Shift focus from 'national security' to 'human security'
- Human security (UN definition)
  - Freedom from fear
    - including protection from violence and environment crises
  - Freedom from want
    - including provision of decent food, healthcare, and housing
  - Freedom from indignity
    - including from human rights abuses

Campaign goals

1. Robust, transparent reporting on all military carbon emissions
2. All military activities covered by zero carbon targets compatible with Paris target of 1.5C
3. Demilitarisation/ shift to human security priorities should be central element of zero carbon plans
4. Nuclear weapons abolition

ARTWORK BY ESCIF
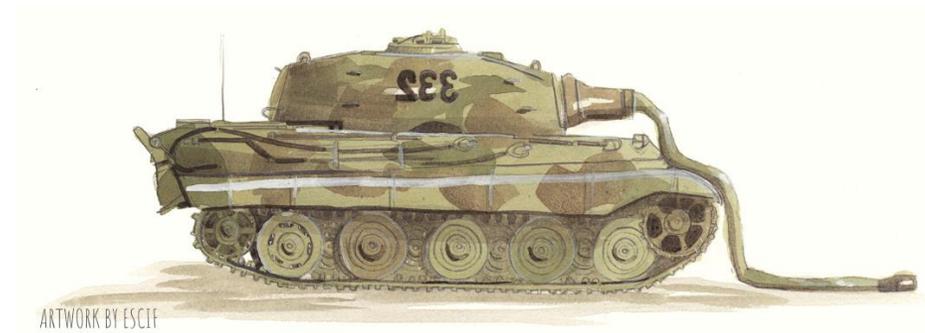
Roles for scientists/ academics

- Climate researchers
  - More independent research on military carbon emissions
  - Robust estimates for all major military nations/ alliances
  - Estimates for effect of demilitarisation on emission levels
  - Call for IPCC special report on military and climate

- Peace studies researchers
  - Outline demilitarisation possibilities
  - Collaborate with climate researchers on demilitarisation scenarios
  - Expand work on human/ sustainable security

- Economics researchers
  - Comparisons of current job levels in green & military tech sectors
  - Develop arms conversion scenarios: from military tech to green tech

Roles for campaigners

- Peace campaigners
  - Educate other campaigners about role of military in climate crisis
    - Especially climate/ youth/ international development/ health/ trade union
  - Promote human security as alternative to military/ national security
    - 'Nobody's safe until everyone's safe'
  - Promote arms conversion as part of green industrial conversion

- Climate campaigners
  - Integrate military/ security issues into your campaign work, including above ideas
  - Work with peace campaigners to challenge military agenda in (e.g.):
    - Nuclear power/ biofuels
    - Humanitarian/ disaster relief work

First step: sign these statements

- For individuals:
  - Stop Excluding Military Pollution from Climate Agreements
  - https://actionnetwork.org/petitions/stop-excluding-military-pollution-from-climate-agreements-2/
- For organisations:
  - Governments: commit to meaningful military emissions cuts at COP26

  https://ceobs.org/governments-must-commit-to-military-emissions-cuts-at-cop26/

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