JOB DESCRIPTION
Vacancy Ref: A3406

Job Title:	Research Associate: Environmental Footprint of the US Military	**Present Grade:** 6P
Department/College:	Lancaster Environment Centre	
Directly responsible to:	Benjamin Neimark	
Supervisory responsibility for:	N/A	

Other contacts
Internal:

- Academic staff at Lancaster Environment Centre; Lancaster University, Data Science Institute; Institute for Social Futures

External:

- Durham University, School of Government and International Affairs

If the US military were a country, its fuel usage alone would put it in the top 50 *largest emitters* of greenhouse gases in the world. Yet they, like other global militaries, are entirely unaccountable. They are also a major source of pollution, yet their lack of transparency and accountability means very little is known about their environmental footprint.

In this project, we seek to expand upon our previous quantification of military-based carbon emissions produced through fuel consumption to the wider environmental and social impacts of emissions of carbon and atmospheric pollutants of three key materials within the military supply chains: sand, water, and cement, i.e. the raw materials of concrete.

The post will play a central role in building on a research initiative investigating military footprints, led by a project team consisting of Dr. Ben Neimark, Dr. Patrick Bigger and Dr. Kirsti Ashworth of LEC, and Dr. Oliver Belcher of Durham University. The project is funded by and Economic Social Research Council Secondary Data Analysis Initiative.

The appointed Research Associate will work withto develop new understandings of the role of the US military in sourcing raw materials, in particular the procurement of concrete during their deployment in Iraq (2003-2011). The postholder will create a geographic information systems (GIS) map of military supply chains, pinpointing source material and emission hotspots, potential pinch points and lock-ins, and calculate the environmental and pollution footprint of the raw materials using a novel hybrid Life-Cycle Analysis (LCA), previously developed by the project team.

We seek to recruit someone, who, guided by the investigators, will be responsible for data acquisition, processing and analysis. The postholder will play a lead role in delivering research outputs, the preparation, editing, and translation of manuscripts and policy briefs and broadcasting communications and webinars around our key research findings and methodological advances.

The postholder will join a lively, interdisciplinary department, Lancaster Environment Centre, with a strong tradition of quality research and impact with scholar and activist networks. In addition to the experiential learning opportunities afforded by the strong project team, the Research Associate will be mentored and supported to undertake a full programme of training and career development through Lancaster University's outstanding Researcher Development scheme and external providers.

Major Duties:

1. Working with the project team to develop an understanding of how militaries source raw materials through complex logistical infrastructures, using a range of data sources including public and private procurement contracts.

2. Working with the team and project partners to design and carry out secondary data collection through Freedom of Information Act Requests and US congressional budgets.

3. Leading the project team's work with the Lancaster Data Science Institute on a novel interactive open source virtual datalab using RShiny. This new virtual datalab will consolidate and make accessible studies on environmental impacts of military operations, including scholarly research and datasets assembled by third sector NGOs.

4. Working with the project team to organize an international methods workshop with a specific target towards training NGOs and policymakers on the tools and techniques of combining GIS, hybrid LCA, and Landsat imagery to understand complex, environmental and socio-economic data and pollution impact hotspots.

5. Producing open source visualizations for policy briefs. We will produce high-reliability quantifications of the material impacts of military procurement, and deployment of sand, water and cement. These will provide both high-level, headline figures, and more granular climate and socio-economic impacts that will be valuable to both policymakers and industry.

6. Sharing these publications with our network of military-environment nexus scholars, including Neta Crawford at the Costs of War (Brown University), and disseminate globally through the Climate Change Social Science Network (https://live-cssn.pantheonsite.io/), and Conflict and Environment Observatory (https://ceobs.org/).

7. Promoting communication and joint learning within the project team and playing a key role in organising and facilitating project workshops and meetings.

8. Representing the project team at meetings, events, government, parliamentary and other consultations.

9. Participating in national and international conferences and workshops, within the academic and policy communities, including COP26, to present the results of the project to a wider audience and to engage with a wide set of stakeholders.

10. Contributing to writing of project outputs (academic publications, blogs, website, social media, policy briefs), including but not limited to a peer-reviewed publication outlining our framework for analysis to ensure our methods are easily reproducible by other researchers. Maintaining a consistently high output of international quality publications and research briefs, co-authored with project partners where appropriate.

11. The post holder will be encouraged to make the most of the outstanding training opportunities offered and to develop an independent research profile, with advice and guidance, and taking into account the needs of the project.

12. Participating in writing new research proposals building on the research and expertise developed in this project.

13. Contributing to academic life at Lancaster Environment Centre, eg contributing to working groups, supporting colleagues' work, supervising undergraduate and postgraduate dissertations, and the possibility of teaching on undergraduate and postgraduate modules and on field classes.