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Quaker United Nations Office

Response to the call for inputs to COP30 Presidency Roadmap for Transitioning Away from Fossil Fuels in a Just, Orderly and Equitable Manner

Introduction

The Quaker United Nations Office (QUNO) welcomes the opportunity to respond to the call for submissions by the COP30 Presidency on the development of a roadmap for transitioning away from fossil fuels. This contribution draws on the expertise of QUNO's programmes of the Human Impacts of Climate Change (HICC) and Sustainable and Just Economic Systems (SJES). We particularly seek to highlight the impacts of fossil fuel subsidies as well as the interconnection between militarization and fossil fuels on the global possibility of phasing out of fossil fuels.

Responses

(a) What are the most critical barriers — whether physical, economic, financial, institutional, technological, or social— preventing a transition away from fossil fuels?

- *Increased global militarization is heavily reliant on fossil fuel energy use:* Military activities are heavily reliant on fossil fuels at times of war and peace. Military forces and industries rely primarily on oil and gas, in the production, transport, deployment of weapons, aircraft, tanks and other heavy machinery.[1] It is calculated that approximately 5.5% of global greenhouse gas emissions are produced by military activities[2], a figure calculated prior to US and Israeli bombing on Iran and Lebanon. And these figures remain estimates due to the lack of legal obligations for states to report on their military emissions in their Nationally Determined Contributions; military emissions were specifically excluded from Kyoto Protocol's commitments to reduce greenhouse gas emission, and in 2015 in the Paris Agreement, military emissions were set as voluntary reporting. In turn, climate models used by the Intergovernmental Panel on Climate Change (IPCC) are compromised because of these insufficiently reported greenhouse gas (GHG) emission calculations.

[1] Manabendra Nath Bera (2025) Militarism: A Leading Cause of Environmental and Climate Crises. Available online.
[2] Stuart Parkinson and Linsey Cottrell (2022) Estimating the Military's Global Greenhouse Gas Emissions. Scientist for Global Responsibility and Conflict and Environmental Observatory. Available online.

Without clear reporting and monitoring on the extent of fossil fuels use, and shielded behind arguments of national security interest, states have few incentives to phase out their fossil fuel dependency of their military and defense sectors.

Moreover, the recent intensification of military activities and the global tendency on rearmament and militarization in turn increase the demand of fossil fuels and increase global GHG emissions. It has been calculated that a military spending rise of $100 billion will lead to an increase in the military carbon footprint of approximately 32 million tonnes of carbon dioxide equivalent[3]. However, finding renewable energy substitutions for military activities is not the main course of action. Instead, to uphold existing international law and norms, including the UN Charter, and to promote non-violent responses to address conflict and avoid killing human beings, destroying livelihoods, and intensifying existential planetary crises. This enables states to shift from the current pattern of increasing military spending, reaching $2718 billion in 2024[4], to finance healthy and sustainable transformations in our energy, economic and agriculture systems.

- *Corporate lobbying and political influence[5]:* Fossil fuel producers and energy-intensive industries wield significant lobbying power to delay climate policies. For example, the increasing influence of oil and gas corporations in international climate negotiations has been documented extensively[6]. At COP28, for example, the presence of fossil fuel lobbyists (taken as a group) outnumbered representatives of Indigenous peoples by a 7 to 1 ratio[7].

- *State reliance:* In addition, the majority of fossil fuel extraction and production enterprises are State owned[8]. However, the role and obligation of governments is to protect its citizens and promote their wellbeing. This would entail ensuring sustainable and healthy energy system transformations and reducing activities that intensify existential planetary crises which threaten their citizens' future ability to live.

- *Investment risks and stranded assets:* Many fossil fuel-dependent economies fear economic instability if they rapidly transition away from hydrocarbons. Financial institutions continue to invest heavily in fossil fuel infrastructure despite growing evidence of stranded asset risks. The non-governmental organization, Oil Change International, for example, reports[9] that since the Paris Agreement in 2016, the world's 60 largest private banks have provided USD $6.9 trillion[10] in financing to companies engaged in the production of fossil fuels, nearly half (USD 3.3 trillion) of which went towards fossil fuel expansion. In 2023 alone, banks provided USD 705 billion in fossil fuel financing, with USD 347 billion dedicated to fossil fuel expansion, despite commitments to phase out financing for new oil and gas projects, such as those made by the Glasgow Financial Alliance for Net Zero (GFANZ),

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[3] Stuart Parkinson (2025). Military spending rises and greenhouse gas emission: What does the research say? Scientist for Global Responsibility. Available online.
[4] SIPRI (2025). Unprecedented rise in global military expenditure as European and Middle East spending surges. Available online.
[5] QUNO SJES (2025) Thematic Input for the UN Special Rapporteur on Climate Change and Human Rights on her report on the fossil fuel-based economy. Available online. ; Oliver Gordon
[6] Seth Borenstein & M.K. Wildeman (2023) Fossil fuel interests have large, yet often murky, presence at climate talks, AP analysis finds. Available online.
[7] Eden Flaherty (2023) At COP28, fossil fuel lobbyist abound. Available online.
[8] Natural Resources Governance Institute https://resourcegovernance.org/topics/state-owned-enterprises
[9] Oil Change International, Rainforest Action Network, Bank Track, Indigenous Environmental Network, Reclaim Finance, Sierra Club, Urgewald. (2024) Banking on Climate Chaos 2024: Fossil Fuel Finance Report. Available online.
[10] Oil Change International, Rainforest Action Network, BankTrack, Indigenous Environmental Network, Reclaim Finance, Sierra Club, Urgewald. (2024) Banking on Climate Chaos 2024: Fossil Fuel Finance Report. Available online.

which pledged to align investment portfolios with net-zero emissions by 2050[11]. However, a 2023 analysis[12] found that several of the largest banks and insurers within GFANZ continue to provide financing for fossil fuel expansion, raising concerns about the credibility of voluntary net zero commitments[13].

- *Market distortions caused by ongoing subsidies:* Governments still allocate vast subsidies to fossil fuels, mainly by keeping domestic prices below world market prices for the same fuels or electricity, making renewable energy comparatively less competitive. Despite pledges under the G20, G7 and the Glasgow Climate Pact, fossil fuel subsidies rose to above USD 1 trillion in both 2022 and 2023[14],[15].

- *Insufficient financing to pay for the energy transition:* Many developing countries struggle to finance a just transition. The absence of dedicated funding streams for fossil fuel workers and affected communities has led to resistance against transition policies. The Just Energy Transition Partnerships[16] (JETPs) that have been initiated by Indonesia, South Africa, and Viet Nam, are promising frameworks but require stronger implementation mechanisms to ensure equitable funding distribution and alignment with human rights protections. [17] Additional sources fair sources of climate finance could include financial transaction tax, international air travel levy (IATL), or connecting wealth taxes to energy transition[18].

- *Weak regulatory oversight into corporate sustainability standards:* Strong corporate sustainability regulations are essential for ensuring transparency and accountability in the fossil fuel sector. However, deregulatory trends in corporate sustainability frameworks risk weakening oversight, limiting corporate responsibility in emissions reductions and planning for a just transition. A key example is the European Commission's Omnibus Simplification Package[19], which significantly dilutes corporate due diligence and reporting requirements under the Corporate Sustainability Reporting Directive (CSRD) and Corporate Sustainability Due Diligence Directive (CSDDD). The revised framework exempts 85% of previously covered companies, limits supply chain due diligence to direct suppliers only, and removes liability for non-compliance, reducing transparency in corporate emissions disclosures and fossil fuel financing. Such rollbacks not only hinder climate action within the EU but also set a concerning precedent for global sustainability reporting standards, particularly in jurisdictions where voluntary frameworks fail to ensure corporate accountability in fossil fuel investments[20].

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[11] Glasgow Financial Alliance for net Zero. (2022) GFANZ Measuring Portfolio Alignment. Available online.
[12] Banking in Climate Chaos: Fossil Fuel Finance Report 2023. Available online.
[13] QUNO SJES (2025) Thematic Input for the UN Special Rapporteur on Climate Change and Human Rights on her report on the fossil fuel-based economy. Available online. ; Oliver Gordon
[14] OECD (2024) Cost of support measures for fossil fuels decreased sharply in 2023 but remains elevated relative to its historical average. Available online.
[15] QUNO SJES (2025) Thematic Input for the UN Special Rapporteur on Climate Change and Human Rights on her report on the fossil fuel-based economy. Available online. ; Oliver Gordon
[16] Anissa Suharsono, Martha Maulidia (2023) What can Indonesia Learn form South Africa's Experience of the Just Energy Transition Process? Available Online.
[17] QUNO SJES (2025) Thematic Input for the UN Special Rapporteur on Climate Change and Human Rights on her report on the fossil fuel-based economy. Available online. ; Oliver Gordon
[18] Alana M. Carlosn, Olivia Hanks. (2023) QUNO – Fair sources of Finance for a New loss and Damage Funding arrangement. Available online.
[19] European Comission Directorate-General for Financial Stability, Financial Services and Capital Markerts Union (2025). Omnibus I package - Commission simplifies rules on sustainability and EU investments, delivering over €6 billion in administrative relief. Available online.
[20] QUNO SJES (2025) Thematic Input for the UN Special Rapporteur on Climate Change and Human Rights on her report on the fossil fuel-based economy. Available online.

To address these barriers, states must enhance corporate accountability by mandating disclosure of fossil fuel-related financial risks, enforce stronger anti-lobbying regulations, and accelerate fossil fuel subsidy reform while ensuring a just transition for workers and communities dependent on these industries. Strengthening international mechanisms under the UN Treaty on Business and Human Rights could also help ensure that corporations align with climate and human rights obligations.[21]

(b) What potential levers, whether economic, financial, institutional, social or technological, exist for accelerating the implementation of the transitioning away commitment?

- *Identifying fossil fuels as a source of security risk and pursuing a just transition as means to increase human safety and community resilience:* Heavy reliance on fossil fuels has been historically an energy security and military risk, given the predominance of fossil fuels on many states' energy systems[22]. This energy dependence has also been a predominant cause of armed conflict for over 50 years. Between one-quarter and one-half of interstate wars since 1973 are connected to oil-relayed causal mechanisms[23], [24]. Phasing out from fossil fuels and adopting sufficient levels of renewable energy technologies is a clear pathway for many states to reduce their security risk. This also increases sustainable energy resilience and accessibility of their communities, while also supporting their economic stability. Most renewable energy technologies are less prone to large-scale failure because they are distributed and modular, meaning and event in one location would not cut off the power of an entire region[25]. This is particularly true for decentralized renewable energy (DRE) systems, which are renewable energy that is generated off the main grid. This DRE can include waste plants, combined heat and power, district heating and cooling, as well as geothermal, biomass, wind, or solar energy[26], and can serve a single building or a whole community[27].

(c) What country, regional or sector roadmap experiences, best practices, and lessons learned can be shared?

Experience of transitioning away from fossil fuels[28]

- *Iceland*[29]*:* One of the few examples of an almost complete transition away from fossil fuels, at least for electricity and district heat, is illustrated by the experience of Iceland starting in the 1970s. At the beginning of that decade, imported fossil fuels provided most of the

[21] QUNO SJES (2025) Thematic Input for the UN Special Rapporteur on Climate Change and Human Rights on her report on the fossil fuel-based economy. Available online.
[22] QUNO HICC (2025) Response to U.N. Special Rapporteur on climate change's call for inputs for her report on the fossil fuel-based economy and human rights. Available online.
[23] Colgan, J.D., (2013). Fueling the Fire: Pathways from oil to war. International Security. Volumen 38, 2. P147-180. Available online.
[24] Isobel Edwards., (2020). The role of decentralized renewable energy in peacebuilding. Available online.
[25] Union of Concerned Scientists, (2017). Benefits of renewable energy use. December 20, 2017. Available online.
[26] Isobel Edwards., (2020). The role of decentralized renewable energy in peacebuilding. Available online.
[27]Andrews Tipper, H., (2013). Decentralized energy: powering sustainable future. Carbon Trust. Available online.
[28] All cases of this section have been taken from: QUNO SJES (2025) Thematic Input for the UN Special Rapporteur on Climate Change and Human Rights on her report on the fossil fuel-based economy. Available online.
[29] Halla Hrund Lagadottir (2015) Island's Sustainable Energy Story: A model for the world? Available online.

country's energy supply. Today, almost 100% of its electricity is provided by renewable energy sources, and 90% of its houses are heated directly with geothermal energy. Elements behind that success include: (1) establishing cohesion and collaboration among municipalities and between them and the central government during the early stages of the transition; (2) empowering local governments and engaging the public; (3) maintaining a favorable legal and regulatory framework, and providing government incentives and support; and (4) developing a long term plan for the implementation of renewable energy.

- *City of Collie (Western Australia)*[30]: A coal-dependent community that co-designed its own just transition. The city engaged workers, unions, business and government in structured process to ensure economic diversification and long-term employment opportunities. The transition, backed by substantial public investment, includes retraining programs, the development of new industries such as carbon-free steel production, battery storage, and targeted economic revitalization efforts.

Experience of positive Decentralized Renewable Energy Systems: The following two examples are part of feed-in tariffs mechanism, that make it possible for communities and collective landowners to pool their resources and put up their own turbines and solar panels. When resources are pooled, even the poorest in the communities can also benefit from renewable energy in their homes and lessen the inequality in resource allocation[31].

- *Germany:* Among the most effective policies in the past years was promoted in Germany's Energiewende. Citizens interested in obtaining solar PV, could get a loan from government owned development bank (KfW) and energy companies were required to purchase the electricity generated at guaranteed subsidized electricity rates, which in turn paid back the loan directly until the solar panels were fully owned. This inclusivity meant that wealth did not factor into who was able to benefit from the renewable energy boom. These programs factor into Energiewende, Germany's energy transition, founded in environmentally conscious economies with decentralized, renewable power supply with many smaller, localized producers. As a result, there are thousands of participants in Germany's electricity market, the vast majority of which do not own power plants or supplier networks. In Germany, about 50% of renewable energy projects are community owned, with more than 100,000 individuals owning a stake in a wind project[32].
- *Denmark:* Wind turbines were legally required to be owned by electricity consumers, so Danish wind projects are typically owned by "wind partnerships" conformed my several landowners and farmers. Therefore, 20% of Denmark's power comes from wind, and 85% of that is owned by the residents of Danish communities[33].

Experiences on phasing out fossil fuels subsidies - Production subsidies: examples include the below [34]

[30] Oliver Gordon (2025) La transición justa de Collie: ¿Un modelo para los ocho millones de trabajadores de carbón del mundo? Available online.
[31] Isobel Edwards., (2020). The role of decentralized renewable energy in peacebuilding. Available online.
[32] Isobel Edwards., (2020). The role of decentralized renewable energy in peacebuilding. Available online.
[33] Isobel Edwards., (2020). The role of decentralized renewable energy in peacebuilding. Available online.
[34] All cases of this section have been taken from: QUNO SJES (2025) Thematic Input for the UN Special Rapporteur on Climate Change and Human Rights on her report on the fossil fuel-based economy. Available online.

- *Argentina:* In 2017, Argentina phased out its incentives to oil producers[35] saving its government some USD 780 million in budgetary outlays.

- *Belgium:* In the 1990s, the Government closed down its last, highly subsidized coal mines, providing a package of measures to ease the burden for miners.

- *Canada:* Coal was mined on Cape Breton, Nova Scotia, from the 18th until the early 21st century. Its last mine closed in March 2020, after years of government subsidies. The nature of that transition has been heavily criticized by some[36].

- *France:* In 1994, the Government, well into its project to make nuclear-power the mainstay of its electric-power industry, announced a managed closing of its remaining coal mines within 10 years; the last one shuttered in 2004. In an agreement with the unions, all redundant miners were paid 85% of their salary until they reached the age of 45 and then 80% until retirement age. They were also allowed to keep their free homes and generous health and other social benefits.

- *Spain[37]:* The Spanish Just Transition Deal that took place between 2019-2023, that was considered a victory from mining unions, replaces subsidies to the coal industry with a sustainable development plan and provides a variety of benefits to miners and their communities. Some of these benefits included: early retirement or redundancy payments as well as 35 days' pay for every year of service for miners; environmental restoration efforts in mining regions, with priority for employment in the green jobs generated to former miners; support for mining communities to develop renewable energy and improving energy efficiency and investing in new industries.[38]

- *Germany:* Germany was obliged by the EU to halt the subsidization of its remaining hard coal mines at the end of 2018. This resulted in several mine closures, concluding a slow process of mine closures[39] and consolidations that began decades earlier. To ensure a just transition[40] for workers, the German government, trade unions, and coal companies reached an agreement that included early retirement schemes, retraining programs, and relocation assistance. Additionally, significant public investments were made to promote economic diversification in former coal-mining regions.

- *Japan:* During the late 1930s and early 1960s, Japan's domestic coal mines yielded over 50 million tons a year[41]. Thereafter, the Government launched a heavily funded programme to "rationalize" its industry; the last remaining coal mine ceased operations in 2002[42].

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[35] IISD. Removing Subsidies for Oil Production in Argentina. Available online.
[36] William Gillies. (2021). Nova Scotia's Coal Industry is in Decline. The Province needs a green energy transition. Available online.
[37] Priestley, Cara. The Peacebuilding Implications of energy transition to a carbon-neutral future. Available online.
[38] Industrial, 'Spanish coal unions win landmark Just Transition deal' (2018). Available online.
[39] Pao-Yu Oei (2019) Lessons from Germany's hard coal mining phase-out: policies and transition from 1950 to 2018. Available online.
[40] World Resource Institute (2021) Germany: The Ruhr Region's Pivot from Coal Mining to a Hub of Green Industry and Expertise. Available online.
[41] Tomoki Shimanishi, Taku Shimizu, Naoko Shimazaki, Ken Takahashi and Shigeo Nakajima. (2022) Perspective Chapter: The Japanese Coal Mining Industry Reconsidered – From Mechanized Longwall Mining to Carbon Dioxide Capture and Storage. Available online.
[42] Tai Wei Lim. (2016) The Final Coal Mine Closures in Japan: A Historical Overview Utilizing the Conceptual Perspective of Mine Closure Policy Implementation Studies. Available online.

- *International Public Finance:* Some 36 countries and 5 institutions have signed on to the Clean Energy Transition Partnership (CETP), initially promising to end their international lending and grants to oil and natural gas facilities by the end of 2022. Progress towards that goal is monitored by Oil Change International[43], an NGO, but analysis of the effects of these policies remains to be undertaken.

Experiences phasing out fossil fuels subsidies - consumption subsidies: examples include the below [44]

- *Inter-governmental organizations:* Numerous case studies of national reforms of consumption subsidies have been produced by inter-governmental organizations such as the IMF[45], the World Bank[46], and the UN Development Programme (UNDP[47]) but also by NGOs such as the Center for Global Development (CGD[48]) and the IISD[49].

- *Argentina:* In June 2024[50], the Government instituted a set of reforms that would cut overall subsidies for electricity (almost all generated by fossil fuels) by half over the course of the coming year.

- *India:* During the mid-2010s, the central government of India undertook a reform of its household subsidies for the purchase of liquid propane cooking (LPG)[51] that involved the largest cash transfer programme in the world to date. India's reforms of their LPG subsidies, however, were designed not only to eliminate waste and expand access to clean cooking fuel, but to better target for poor rural households, especially women.

- *Nigeria:* Nigeria has long cross-subsidized its domestic prices for petroleum products (most of which are imported) from profits earned on its exports of crude oil. It has made many attempts to end those subsidies, often provoking civil unrest. In 2024 it embarked on a new programme of subsidy reform[52].

- *United Arab Emirates (UAE):* In August 2015 the Government of the UAE decided to link its domestic price of petrol (gasoline), which was previously set below export price parity, to the international price of oil to help rationalize fuel consumption and encourage the use of public transport. This policy shift led to an immediate increase in gasoline prices by approximately 25%[53], while diesel prices saw a slight decline, reflecting international market trends. The UAE has also tried to reduce its subsidies for electricity[54] and water but with less success.

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[43] Public Finance for Energy Database. Fossil Free Policy Tracker.
[44] All cases of this section have been taken from: QUNO SJES (2025) Thematic Input for the UN Special Rapporteur on Climate Change and Human Rights on her report on the fossil fuel-based economy. Available online.
[45] International Monetary Fund (2013) Case Studies on Energy Subsidy Reform: Lessons and Implications. Available online.
[46] ESMAP The World Bank. Energy Subsidy Reform Facility.
[47] UNDP (2021) Fossil Fuel Subsidy Reform: Lessons and Opportunities. Available online.
[48] CGD. Energy Access.
[49] IISD. (2017) Fossil Fuel Subsidy Reform and the Just Transition: Integrating Approached for complementary outcomes. Available online.
[50] Manuela Tobias. (2024) Milei begins to slash energy subsidies for low-income Argentines. Available online.
[51] Neeraj Mittal, Anit Mukherjee, and Alan Gelb. (2017). Fuel Subsidy Reform in Developing Countries: Direct Benefit Transfer of LPG Cooking Gas Subsidy in India. Available online.
[52] Laolu Afolabi (2024). Grappling with tough economic implications of total fuel subsidy removal. Available online.
[53] Marmore Team (2015). Fuel Price Hike in the UAE. Available online.
[54] Michael Gallaher, Tanzeed Alam, and Nadia Rouchdy. (2017) The Impact of Electricity and Water Subsidies in the United Arab Emirates. Available online.

- *United States:* For many years, as a result of federal regulations, the prices of natural gas sold in interstate markets were kept below the prices for natural gas sold in intrastate markets, resulting in rationing of deliveries[55] during peak usage periods. The Natural Gas Policy Act of 1978[56] promised to end price controls on all new wells by 1985, and the Natural Gas Wellhead Decontrol Act of 1989[57] eliminated all remaining price controls on natural gas as of 1 January 1993. The effect of these actions[58] was to substantially increase national production of natural gas. The passage of the federal Low Income Home Energy Assistance Program[59] in 1981 helped assist low-income households pay some of the higher costs of meeting their immediate home energy needs.

[55] SteveN. Isser (2018) Natural Gas Deregulation in the US: 1970-2000. Available online.
[56] H.R. 5289- Natural Gas Policy Act of 1978. Available online.
[57] H.R. 1722 – Natural Gas Wellhead Decontrol Act of 1989. Available online.
[58] The Council of Economic Advisers (2019). The Value of U.S. Energy Innovation and Policies Supporting the Shale Revolution. Available online.
[59] LIHEAP. Low-income Energy Programs Funding History 1977-2022. Available online.