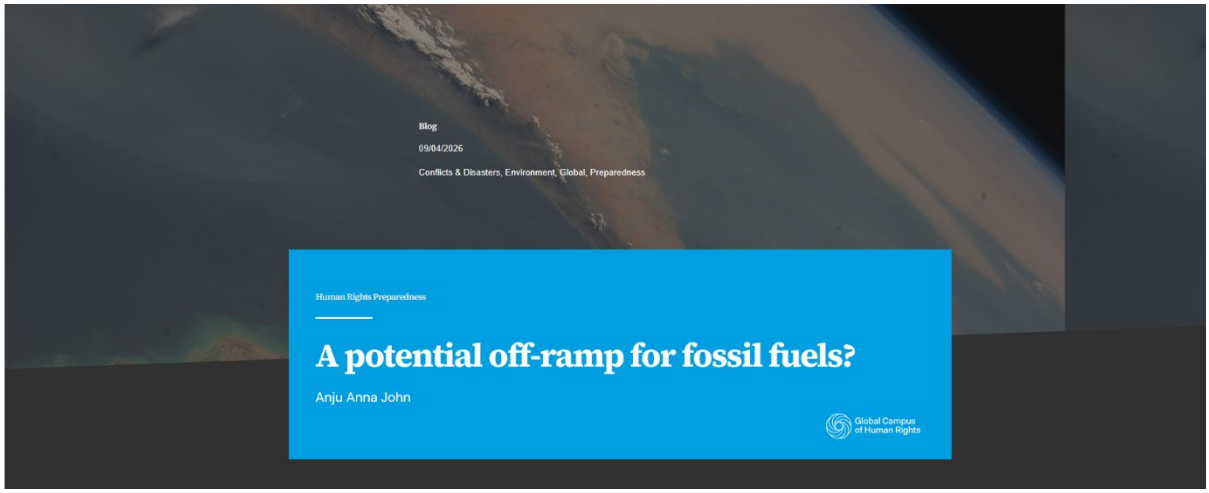

A potential off-ramp for fossil fuels?

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Abstract: The environmental cost of the war against Iran requires us to confront its estimated carbon emissions and how military emissions escape our current accounting. This is a reminder that a switch from fossil fuels to renewable energy is not just about addressing climate change, but also the economy and global security.

After weeks of media speculation on a possible off-ramp for the United States of America (US) to deescalate its illegal war in Iran, we now have a tenuous two-week ceasefire between them. However, as Israel continues to bombard Lebanon and Iran closes the Strait of Hormuz once again, we are faced with the consequences of a world economy that is still heavily reliant on fossil fuels.
At the very beginning of this war, the US targeted and killed the sovereign head of Iran. The latter, in turn, responded by cutting off access to the Strait of Hormuz through which 20 percent of the world's oil and gas passes. The strikes that have followed have seen a grave devaluation of civilian life, with fatalities of civilians reported across the Middle East. Perhaps the most striking turn was the US President's social media post threatening to wipe out Iran's civilisation, which if he followed through, would amount to genocide.

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An attack on clean, healthy and sustainable environment

On top of civilian deaths, the countries in the Middle East also have to contend with the destruction of essential services. The Gulf countries largely depend on desalination plants to ensure water supply to its populations. And these have already come under attack, with the US attacking an Iranian desalination plant and Iran retaliating with an attacks in Bahrain and Kuwait.

What often does not get enough coverage in armed conflicts is their environmental cost. The attacks on oil facilities have directly resulted in toxic chemicals and other pollutants being released into the environment. The soot, ash and toxic chemicals have combined with water droplets and caused acid rains in Iran that have been termed as 'black rain'. The microscopic soot can cause breathing and heart problems leading to premature death.

While the war poses a threat to the lives and health of human beings, it also has damaging effects on the entire ecosystem. The mines and the spilling of oil and chemical pollutants would further degrade the flora and fauna in the Strait of Hormuz, which is already subject to pollution due to heavy traffic and industrial activities. The coral reefs, mangrove forests, and seagrass meadows form the habitat of various species, and the Strait also serves as a migration route for marine mammals. In the present case, the US has stretched the war beyond the geographical limits of Iran to torpedo an Iranian frigate in the high seas near Sri Lanka, which has resulted in a 20 kilometer oil slick in an ecologically important area along its coast.

The military emissions gap

Furthermore, or perhaps most importantly, war makes climate change worse. Based on research estimates, military emissions account for 5.5 percent of annual global greenhouse gas emissions. If the combined carbon footprint of the world's militaries were to be ranked against those of the countries of the world, it would rank fourth.

However, the emissions issued by war typically are not properly accounted for in the UNFCCC mechanism. The US pressured the Conference of Parties at Kyoto into excluding military emissions from the Kyoto Protocol, only to walk away from the Protocol later. Finally, in 2015, the Paris Agreement made glacial progress by allowing for voluntary reporting of military emissions. Even so, this data rarely disaggregates military emissions from that of civilian activities, and some countries still refuse to provide this on the grounds of national security.

In a world where climate action often revolves around complex calculations and allotment of carbon credits, the catchphrase one often comes across is 'What gets measured, gets managed'. What then, is the fate of those emissions that are outside the purview of these measurements?

Estimated emissions from the war against Iran

An analysis of the first 14 days of the US-Israel war against Iran shows that it has resulted in CO2 emissions to the tune of 5 million tonnes, higher than the total emission of Iceland in 2024, and greater than what 84 lowest emitting countries of the world have spent from the available global carbon budget in this period. The truth about the carbon emissions from war is that it is not limited to the destruction it causes during the war itself. As the analysis also points out, rebuilding after a war is an energy-intense exercise. Most of the destroyed infrastructure must be replaced from scratch.

Furthermore, the damage from oil spills and increased pollution in the region would directly affect the ability of the mangroves and seagrass in the region to sequester carbon. Thus, the war is not just emitting more carbon into the atmosphere, it is also impairing the natural ecosystem and diminishing the capability of these 'blue carbon' sinks.

The urgent need to transition to renewable energy

Over the past four weeks, the US-Israeli war against Iran has caused mayhem in the market and the economy, with countries now juggling with market volatility and inflation. However, if this feels like *deja vu*, it is because we have seen this before. Studies show that between one-quarter to one-half of interstate wars since 1973 were related to oil. It is increasingly becoming clear that our continued reliance on fossil fuels will only fuel more armed conflicts, as this finite resource will eventually dry up.

In contrast, renewable sources of energy (by their very definition) are not finite resources. A transition to renewable energy would allow countries to diversify their energy sources and reduce their reliance on fossil fuels, thus insulating them to an extent from the effects of a similar war in the future.

Such diversification would also reduce the grip that OPEC countries have on the global economic market and help us avoid being forced into financing further wars. Following the blockage of the Strait of Hormuz, the US eased sanctions on Russian oil that were in place following Russia's invasion of Ukraine. This has facilitated Russia to make an additional 672 million euros in oil sales in just the first two weeks of the war. Iran itself has continued to move its oil through the Strait during this period. Therefore, the oil producing countries continue to make gains from the rise in oil prices during the armed conflict, which ultimately assist in funding future wars. From that perspective, a transition to clean energy is not just a climate change issue, but also a way towards building peace.

While the current US government might be actively working against investments in renewable energy, Europe may already be looking at decarbonisation as a way to ensure the safety of its economy and security.

Even as the state parties to the UNFCCC vacillate about moving away from fossil fuel, a new reports from the World Meteorological Organisation state that the earth's climate today is a lot more imbalanced and is trapping a lot more solar

energy due to increased greenhouse gases. Therefore, we are at a critical juncture, where the focus should be on reducing additional greenhouse emission, rather than increasing it. A move towards renewable energy would definitely be a step in this direction.

Finally, whether or not the US finds an off-ramp to de-escalate its current armed conflict with Iran, it has shown the rest of the world that finding a way to off-ramp their reliance on fossil fuel and transition to green energy is the need of the hour!