

Military & Conflict-Related Emissions & Climate Reparations for Palestine

'Military & conflict-related emissions & climate reparations for Palestine' is prepared by Tipping Point North South and the Palestinian Institute for Climate Strategy.

It is released to coincide with the civil society *'Draw the Line'* global week of action, taking place as world leaders gather at the UN General Assembly in New York, and just six weeks before the UN Climate Summit (COP30) in Belém, Brazil.

The briefing provides an estimate of carbon-emission-based costs of the traceable military-related activities by Israel and its allies. This quantification represents a fraction of the total climate reparations owed to Palestine. When accounting for the broader social, economic, and environmental devastation of Israel's historical occupation, the ongoing genocide and ecocide of the Palestinians, and the wholesale environmental destruction of Palestinian land and lifeforms, the total reparations needed would be significantly higher. **While the quantification of military and conflict-related emissions offers one measurable entry point into climate harms and accountability, it does not capture the full scale of colonial violence as climate violence, which extends beyond what can be reduced to carbon metrics.**

A more detailed paper can be found at www.transformdefence.org/publication/climatereparationsforpalestine.

This work is part of a wider project addressing the military and conflict-related emissions of the world's top 20 military spenders and their climate reparations debt. The research will be published in advance of COP30 in Belém, Brazil, in November.

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Purpose

In this briefing, we quantify **the historic military and conflict-related emissions** of the 77 years of Israel's occupation of Palestinian land since its founding in 1948, culminating in the ongoing genocide of Palestinians for nearly two years. By applying the monetary measure '**the social cost of carbon**', that is, the long-term social and environmental damage done by emitting one additional tonne of carbon, **the briefing calculates the climate reparation owed by Israel to the Palestinian people as a result of these historic military and conflict-related emissions.**

Ultimately, the purpose of this research is to argue that military & conflict-related emissions must be recognised as a core component of **the reparations owed to the Palestinian people.** They must be added to the broader list of damages for which Israel and its allies are accountable, from decades of military and financial support for Israel's apartheid regime to present-day material backing for its genocide of the Palestinian people.

This reckoning must also address the intertwined realities of genocide and ecocide. The international movement to add ecocide as the fifth international crime prosecuted by the International Criminal Court (ICC) alongside genocide, war crimes, crimes against humanity and aggression, provides the definition of ecocide as *"unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment."* This legal tool must be wielded to evidence the deliberate environmental destruction committed against Palestinian lives and lifeforms, in demand for prosecution.¹

Estimating Military Carbon Footprint & the Climate Costs

Our methodology builds on Tipping Point North South's joint report with the Transnational Institute and Stop Wapenhandel in 2023.² We have since updated the methodology to include non-NATO countries, e.g. Israel. *(A further update on this paper and the complete report on the top 20 military spenders and climate reparations will be published later for COP30.)*

¹ This argument draws strength from international jurisprudence. In her declaration to the recent International Court of Justice advisory opinion on climate change, Judge Cleveland affirmed that states' obligations under climate treaties and customary international law extend to harms caused by armed conflict and military activities. Excluding such harms distorts the global picture of warming and undermines collective action. Conflict-related emissions are not peripheral but central to climate accountability and must be included in any reparations framework.

² <https://transformdefence.org/publication/climate-crossfire-how-natos-2-military-spending-targets-contribute-to-climate-breakdown/>



To estimate the military carbon footprint, we use this formula:

Carbon footprint of military and the associated military technology industry = (military expenditure) × (proportion spent on equipment) × (spend–emission conversion factor) + (number of military personnel) × (average stationary emission per military head)

The social cost of carbon (SCC) is a monetary measure of the long-term damage done by emitting one additional tonne of carbon emissions — or conversely the benefit of reducing a tonne of carbon emissions.³ However, it is essential to underscore that while the SCC provides a valuable entry point for quantifying climate damages, it also has limitations in the Palestinian context. The metric rests on modelling assumptions via global averages, which can obscure regional specificities, and in this case, the disproportionate harms borne by Palestinians, considering their lived realities and the compounding effects of the occupation. It can also obviate impacts stemming from tipping points and abrupt socio-political or ecological shifts. Therefore, our SCC estimates provide the lower bound of the total associated climate costs.

Key Findings

To date, the total estimated amount of the **military and conflict-related climate reparations** owed by Israel and its allies to the Palestinian people **since the Nakba is US\$148 billion**.⁴ Of this,

- **Israel is responsible for US\$103 billion.**
- **The U.S. is responsible for US\$40.8 billion.**
- Israel's allies share further responsibility: Germany US\$2.7 billion, France US\$1 billion, the UK US\$0.5 billion, and Italy US\$0.17 billion.

These figures represent the *measurable climate liability* of military and conflict-related emissions. Yet, as this briefing makes clear, they capture only one entry point into the broader reparations reckoning for Palestine, which must also encompass the wider harms of occupation, genocide, ecocide and systemic destruction of Palestinian life. Many of these aspects are beyond what we can quantify in simplified carbon metrics, and we must not lose sight of this complexity in rebuilding just futures for Palestine.

³ <https://www.nature.com/articles/s41586-022-05224-9>

⁴ NOTE: Since there is a severe lack of transparency by governments on the relevant data for accurate analysis, our estimates are for guidance. On this issue there remains a great need for much more detailed and precise calculations to be taken up by those legal bodies charged with making aggressors pay for their crimes.



How this Breaks Down

OCCUPATION 1948 TO PRESENT DAY

- According to the Stockholm International Peace Research Institute (SIPRI), Israel's total military expenditure during these years (1949–2024) amounts to US\$932 billion (in constant 2023 US\$).⁵
- We estimate the corresponding military carbon footprint to be 362,000,000 tCO_{2e}.
- **The (SCC) climate cost is therefore US\$93 billion**, allocated accordingly:
 - Israel US\$74.9 billion.
 - USA US\$14 billion, Germany US\$1.6 billion, France US\$1 billion, UK US\$0.5 billion and Italy US\$0.17 billion.

UNITED STATES MILITARY AID

- US military aid is only for the procurement of military equipment, services and training. The total US military aid to Israel, amounting to US\$251.2 billion,⁶ results in 181 MtCO_{2e} of greenhouse gas (GHG) emissions.
- **The additional climate cost of this amount of emissions is US\$46.7 billion.**
- We apportion 50/50: Israel US\$23.4 billion; USA US\$23.4 billion.

CONFLICT-RELATED EMISSIONS

- Latest research estimated the emission burden of the Gaza genocide by Israel (since October 2023 to January 2025) to be 32 MtCO_{2e}, including emissions from direct war activities as well as pre-conflict and post-conflict related construction.⁷
- Approximately 30% of GHG emissions from direct war activities since the war began came from the U.S. provision of 50,000 tonnes of weapons and supplies to Israel.
- According to SIPRI, 99% of arms imports for Israel in recent years came from the USA (69%) and Germany (30%).⁸

⁵ <https://milex.sipri.org/sipri>

⁶ <https://watson.brown.edu/costsofwar/papers/2024/USspendingIsrael>

⁷ <https://dx.doi.org/10.2139/ssrn.5274707>

⁸ <https://www.sipri.org/databases/armstransfers>



- **The climate cost for the current Gaza genocide is around US\$8.3 billion.**
 - Israel as perpetrator of genocide: US\$4.7 billion.
 - USA US\$2.5 billion; Germany US\$1.1 billion.

Conclusion

For nearly two years, Israel's genocide in Gaza has had devastating consequences: at least 60,000 people have been killed, hundreds of thousands more injured, wounded, or buried under rubble. The civilian casualty rate of this genocide far outstrips all other modern wars.⁹ In the West Bank, Israel has escalated its illegal settlement expansion, killing and displacing countless more Palestinian people. Environmental obliteration also unfolds in many forms: the flattening of infrastructure and toxic debris, scorched croplands, poisoned soils and aquifers, and the sea turned into sewage. The systematic destruction of ecosystems and life-supporting systems is not collateral damage, but a deliberate policy that makes lives unliveable. It is an act of ecocide that works in tandem with genocide to erase both a people, their culture, and their land. The carbon footprint of this ongoing genocide alone was estimated at 32 MtCO₂e, more than the combined annual GHG emissions of Costa Rica and Estonia.¹⁰ This underscores that the destruction is not only a humanitarian catastrophe but also a planetary one.

Our calculations estimate US\$148 billion in climate reparations owed by Israel and its allies since the Nakba. **Yet this is only a measurable entry point.** A complete account of climate reparations must also reckon with the broader violences of ecocide and occupation, including but not limited to the theft of water, the obliteration of seed banks, the uprooting of native flora, and the enclosure and weaponisation of nature which sustains life, such as land, water, forests, and seeds.

There must be an immediate end to Israel's genocide in Gaza and an end to Israel's illegal military occupation and apartheid in Gaza and the West Bank, including East Jerusalem, as demanded by the International Court of Justice and the UN General Assembly. The need for consistent and concrete pressure is urgent, as Israel openly states its aim to entirely destroy Gaza. Accountability must extend beyond Israel to those states that enable its crimes through arms transfers, technological provisions, financing, and diplomatic cover.

⁹ <https://theconversation.com/gaza-civilian-death-toll-outpaces-other-modern-wars-263685>

¹⁰ <https://www.theguardian.com/world/2025/may/30/carbon-footprint-of-israels-war-on-gaza-exceeds-that-of-many-entire-countries>



Israel's genocide against Palestinians in Gaza and crimes against humanity¹¹ will be made accountable.

Recommendations/Demands

- Recognise ecocide as the fifth international crime to be prosecuted by the International Criminal Court alongside genocide, war crimes, crimes against humanity, and aggression.
- Integrate military-linked climate harms into war crime tribunals and ensure that future investigations of Israel's genocide also include climate and ecological harms as part of the accountability process.
- Recognise Palestinian resource sovereignty and rights over natural resources in reparation frameworks.
- International institutions charged with adjudicating war crimes and reparations to ensure that military- and conflict-related emissions are incorporated into the reparations framework, building on the US\$148 billion calculated in this briefing.
- The FRLD (Fund for Responding to Losses and Damages), as well as all climate adaptation finance providers, must recognise the long-term and often irreversible impacts of ecocide and put in place mechanisms for victims of ecocide to access climate finance. Additionally, needs-based assessments of climate finance and the scale of pledged climate finance should account for the finance required as reparations and for rehabilitation resulting from military-induced climate harms.
- The UNFCCC must explicitly recognise the climate and ecological dimension of war and occupation. In particular, the Intergovernmental Panel on Climate Change (IPCC) AR7 Special Report on Cities should include a dedicated chapter on war- and conflict-related emissions, with attention to the wholesale destruction of cities and systems such as Gaza City and its surrounding lands.

Israel and its supporters' actions constitute both genocide and ecocide, as an act of destruction of people and the environment upon which survival depends. Climate justice requires that reparations account for both the measurable carbon costs and the deeper ecological, cultural, and social destruction that no metric can fully capture.

¹¹ <https://irishpages.org/product/genocide-in-gaza/?v=7885444af42e>; <https://www.icj-cij.org/node/203447>; <https://www.icc-cpi.int/defendant/netanyahu>; <https://www.amnesty.org/en/documents/mde15/8668/2024/en/>; https://www.btselem.org/publications/202507_our_genocide

