Emerging Voices

"It's Not Just About Economic Development": Prioritising Climate-Vulnerable Regions in International Sustainable Development Policy — The Arctic Case Study

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Introduction

Multilateral climate policymaking and diplomacy has long prioritised countries classified as "developing" or "low-income" by the World Bank and United Nations, channeling climate finance and technical assistance accordingly (World Bank, 2022; UNDP, 2023; Farias, 2022). Yet this framework overlooks critical settings that, despite residing within high income and transition economy nations, are faced with severe environmental and climate related vulnerabilities.

Climate vulnerable settings, from low lying Small Island Developing States (SIDS) in the Pacific, cyclone prone coastal zones in South Asia and flooding-prone areas in Japan (IPCC, 2023), drought hit areas in the Sahel (OECD, 2024), to the melting permafrost and eroding shorelines of the Arctic (WWF, 2023), demand equal policy attention, investment and implementation focus. As the world approaches our final opportunity to limit global warming to 1.5°C, where greenhouse gas emissions must decline 43% by 2030 as per the Paris Agreement (UNFCCC, 2015) and the 2030 deadline for the UN Sustainable Development Goals (SDGs), a set of 17 interconnected global objectives adopted by all UN Member States in 2015 to ensure sustainable development for all by concurrently protecting the planet and ensuring prosperity by 2030 (UN, 2015), policymakers must broaden their lens beyond economic development categorisation to include environmental risk and adaptive capacity (Arctic Council, 2021; IPCC, 2022). This has recently become more pressing as a result of the latest research highlighting how progress across the 17 UN SDGs is fundamentally interconnected and positively correlated in climate vulnerable regions like the Arctic; delays or gaps in climate action often correlate with setbacks in economic, social and governance outcomes (Koch, 2024).

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This article highlights the critical Arctic case study, but it is worth applying this globally to all climate-vulnerable settings: international organisations which hold multilateral capacity-building resources such as the United Nations and World Bank Group should update sustainable development frameworks to explicitly prioritise all climate vulnerable settings, in addition to accounting for their economic development classification, ensuring no community is neglected in terms of climate and sustainability action capacity-building and finance.

The Arctic as critical climate vulnerable setting

The Arctic, forming part of economically developed countries Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States, remains one of the regions most affected by climate change globally, making it a key example of the policy gap where high national income classification can mask severe local climate vulnerability (IPCC, 2023; Arctic Council, 2016). The region is warming at twice the rate of the global average, a phenomenon known as Arctic amplification (IPCC, 2023). This accelerated warming leads to three key cascading impacts which even the developed countries the Arctic forms part of are finding it challenging to address. First, declining sea ice is profoundly altering marine food webs by reducing habitat for key species, thereby threatening wildlife such as polar bears, seals and Arctic char and undermining the subsistence activities of Indigenous communities, whose cultures and livelihoods are severely dependent on these ecosystems (IPCC, 2023; WWF, 2023). Second, thawing permafrost is destabilising critical infrastructure, damaging homes, roads and pipelines, while releasing large quantities of stored carbon dioxide and methane in combination with deposited black carbon-induced surface warming and melting which is altering weather patterns and ecosystem cycles, these both intensifying global warming through positive feedback loops (Arctic Council, 2016; Chen et al., 2025). Third, as ice cover diminishes, Arctic shorelines are losing their natural buffers against storms, resulting in rapid coastal erosion that has forced inhabitants in villages such as Shishmaref in Alaska, USA and Tuktoyaktuk in Canada to consider or undertake relocation to avoid life-threatening land loss (Arctic Council, 2023). These multidimensional climate and weather change vulnerabilities underscore the imperative for policymakers to address Arctic specific challenges as well as other climate vulnerable regions worldwide with urgency and scale commensurate to how developing country contexts are treated (IPCC, 2023).

Climate funding improvements

Key policy frameworks focused on establishing and maintaining international climate finance mechanisms continue to predominantly target economically developing countries to support mitigation and adaptation (World Bank, 2022). Examples include the financial mechanism used to channel climate finance to developing countries under the United Nations Framework Convention on Climate Change, the Kyoto Protocol and the Paris Agreement. This mechanism is operated primarily by the Global Environment Facility (GEF) and the Green Climate Fund (GCF), which receive guidance and oversight from the Conference of the Parties (COP) on policies, priorities and eligibility. Parties have also created additional funds such as the Special Climate Change Fund (SCCF), the Least Developed Countries Fund (LDCF) and the Adaptation Fund, to support adaptation and other climate actions for implementation of the Paris Agreement (UNFCCC, 2025).

Similarly, the widely-used World Bank classifies economies into low, lower middle, upper middle and high income groups based primarily on gross national income (GNI) per capita thresholds,

adjusted annually and accounting for purchasing power parity and exchange rates (World Bank, 2024). Core World Bank-led lending windows such as the International Development Association now integrate climate co-benefits across mainstream development projects, and Climate Investment Funds (CIFs) provide dedicated, multi-donor concessional finance to scale up transformational low-carbon and climate-resilient investments, but eligibility assessment is still primarily focused on income level, and they are all designed first and foremost to channel finance from developed countries to developing countries (UNDP, 2025; World Bank, 2025).

Recent UN decisions, such as the COP27 2022 agreement to expand Loss and Damage funding modalities to include high vulnerability regions irrespective of their income status, underscore the growing demands from the international community to reassess eligibility criteria for climate finance (UNFCCC, 2025). Similarly, the UNDP's 2023 Human Development Report highlighted the need to revisit the "developing" category, noting that climate risk indices often do not align with income-based classifications and urging a shift towards vulnerability-based criteria (UNDP, 2023). In this way, the Arctic, like other climate vulnerable contexts such as, for example, Small Island Developing States (SIDS), or sub-Saharan drought prone regions (UNDP, 2023), must be acknowledged as a case where per capita emissions reductions and adaptation efforts yield disproportionate global benefits; specifically, maintaining permafrost can avert the release of gigatonnes of carbon dioxide and methane, thus mitigating feedback loops that exacerbate planetary warming on a global scale (IPCC, 2023). Indigenous communities within the Arctic experience socio-economic marginalisation characterised by limited infrastructure, food insecurity and constrained livelihoods, while the geopolitical significance of the Arctic has intensified with the emergence of new maritime corridors and untapped resource deposits, social and economic conditions that co-exist and correlate positively with climate vulnerability in ways that closely resembles correlations in other recognised developing regions, and therefore also warrant additional support frameworks for effective climate governance of comparable scope and ambition (UNDP, 2023; OECD, 2024). Therefore, by reframing the Arctic region as a climate vulnerable setting requiring special attention like we treat economically developing countries, global policy instruments can more equitably allocate climate action resources and technical assistance where it is needed most (Arctic Council, 2016). Furthermore, country classifications and borders are often arbitrary and debatable, and may be liable to change over time, whereas climate risks and environmental changes transcend political boundaries, highlighting common challenges we can more easily agree on the need to address across climate vulnerable regions which cross borders (IPCC, 2022).

Moreover, technological innovation and technical capacity building, especially emerging areas such as digital innovation and artificial intelligence (Koch & UN CTCN, 2025), are a critical opportunity for accelerating climate action, but require significant financial investment and policy coherence to implement. Despite its strategic importance and the economic development of the states who claim its territories, the Arctic remains technologically underdeveloped, lacking robust digital infrastructure, advanced early warning systems for climate extremes and weather conditions and tailored renewable energy solutions, thereby additionally limiting its adaptive capacity relative to developing regions prioritised by innovation funding and development programmes (IPCC, 2022; Kasthala et al., 2024; Koch, 2024).

Therefore, a proposed solution can come in the form of dedicated vulnerability driven funding windows established within existing multilateral climate finance mechanisms to guarantee that proposals from developed, but climate-vulnerable settings like the Arctic and Japan, compete on equal footing. Similarly, grant mechanisms must be reworked to empower Indigenous and local community organisations with local know-how on urgent climate needs and impacts to co-lead the design and implementation of data sharing and adaptation plans, thus recognising traditional knowledge and self-determination as indispensable components of effective climate policy (IPCC, 2023) in such settings.

Developing a standardised global climate vulnerability classification and the integration of climate need prioritisation and capacity building frameworks

Effective climate need prioritisation requires integrating the needs of climate vulnerable settings into existing climate finance and policy frameworks, supported by robust capacity building and technical and financial assistance for the most effective implementation. Existing approaches to assessing climate vulnerability show considerable methodological variation and therefore limited implementation beyond local settings. For instance, Kasthala et al. (2024) systematically reviewed 84 indicator-based studies and found that while most existing frameworks used worldwide emphasise socioeconomic factors, fewer incorporate environmental and institutional dimensions, highlighting the need for standardised international composite indices that integrate exposure, sensitivity and adaptive capacity (IPCC, 2022). To ensure consistency and comparability across international organisation member states such as the UN, a universally agreed classification of climate vulnerable settings is needed. To this end, the proposed solution is for the standardisation of an international climate-vulnerability classification system to be layered on top of the economic development classifications currently used, inspired by Intergovernmental Panel on Climate Change (IPCC) frameworks for vulnerability which take into account exposure, sensitivity and adaptive capacity, and the Notre Dame Global Adaptation Initiative (ND-GAIN) (Das et al., 2020; Notre Dame Global Adaptation Initiative, 2023; IPCC, 2022). This system would be analogous to the World Bank's four-tier income system (low, lower middle, upper middle, high income) and the UN's country groupings based on development status (UN DESA, 2014) and would rank sub-national and national entities by composite vulnerability metrics, combining exposure, sensitivity and adaptive capacity, in order to better guide the allocation of finance, technical assistance and capacity building support. In addition, global policy guidance should be updated to mandate the development of explicit action plans for climate-vulnerable areas, whether they are Sahelian zones, Japanese coastlines or Arctic territories, thereby embedding a standard requirement for targeted adaptation and resilience measures across all at risk contexts (OECD, 2024). Facilitated cross regional knowledge exchange can facilitate the sharing of best practices and co-development of innovation hubs, especially for emerging climate technologies, across climate vulnerable territories, thereby enhancing collective adaptive capacity. In parallel, localised climate risk assessments within identified climate-vulnerable zones using this proposed classification should be obligatory and integrated into UN and Nationally Determined Contributions (NDC) and Global Stocktake (GST) reporting processes to improve the granularity of our understanding of ecological feedback and local adaptation requirements (IPCC, 2023). Finally, prioritising climate-vulnerable setting-dedicated capacity building through targeted training, institutional strengthening and technology transfer will ensure that these national and local governments, NGOs and community

organisations possess the essential skills and resources to plan, implement and monitor adaptation initiatives effectively (UNDP, 2023).

At national level, multilateral just transition policies must be encouraged to align local economic growth with net zero trajectories, mandating that, for example, industry-specific resource extraction activities and emerging shipping routes comply with stringent environmental protections and social safeguards (OECD, 2024). Moreover, infrastructure and connectivity investments should prioritise decentralised green energy solutions, including wind and solar microgrids, to reduce reliance on diesel, lower local emissions and enhance energy sovereignty in remote communities (World Bank, 2022).

Integrating climate-vulnerable setting consideration into broader sustainable development agendas

Although inherently aspirational, in line with the proposed changes, the UN SDGs, as a key sustainable development framework of action, must be adapted into actionable and measurable policy frameworks that afford climate action and environmental resilience parity with economic development objectives (UN, 2015; Nerini et al., 2019). By embedding these principles, international organisations and national actors active in the multilateral system can foster a genuinely holistic development paradigm in which climate vulnerable settings are central to the global sustainability agenda rather than peripheral considerations. Beyond the allocation of climate finance and capacity-building resources, such frameworks can be adapted to more holistically integrate the nuanced needs of climate vulnerable settings. Additional explicit indicators under SDG 13 (Climate Action) and SDG 15 (Life on Land) should be established to measure critical climate vulnerability metrics, such as climate technology readiness, coastal erosion rates, industrial emissions and food security risk, for instance, ensuring these dimensions are systematically tracked and addressed (UNDP, 2023).

Moreover, dedicated review mechanisms could be established within the UN High Level Political Forum on Sustainable Development to systematically evaluate and track progress in addressing domestic climate hotspots, providing accountability and enabling course corrections where necessary (UN Sustainable Development Group, 2025).

Implications for future sustainable development policy agendas

Elevating climate vulnerable settings in policy prioritisation and capacity building frameworks have the potential to significantly reshape global sustainable development discourse and the implementation of the Paris Agreement and UN SDGs. Firstly, this will allow the narrative of international development to transition from a focus on economic development to an emphasis on enhancing community and ecosystem climate resilience, reflecting a systems-based approach to sustainability emerging in the global climate discussions (WWF, 2023). Secondly, by acknowledging the varied and intersectional nature of vulnerability, policymakers can adopt an intersectional climate justice perspective (Koch, 2025) that recognises and addresses the complex interplay of social, economic, geopolitical and environmental challenges across diverse challenging settings (UNDP, 2023). Thirdly, channelling financial and technical support through established multilateral frameworks will strengthen global cooperation, reducing reliance on unilateral or ad hoc national and local initiatives and ensure more coherent and equitable climate and sustainable development outcomes (UNFCCC, 2025). As 2030 UN SDG and Paris Agreement

implementation become more urgent, the international policymaking community is currently faced with a pivotal opportunity for national and international policy decisionmakers to revise our outdated development frameworks. This should come in the form of the integration of clear, measurable and criteria for identifying and supporting subnational climate vulnerable hotspots within developed countries and the development of a multilateral standardised climate vulnerability classification taking into account climate risk and capacity-building needs.

Conclusion

Economic development classifications should not be the sole focus of policymakers and multilateral policymaking; it is becoming increasingly more evident that climate vulnerability and environmental risk must be recognised alongside poverty and underdevelopment when allocating resources and crafting sustainable development strategies (IPCC, 2023). International organisations, particularly the UN system, and national governments should begin integrating post2030 and Paris Agreement-aligned development frameworks that embed nuanced climate risk criteria at their core into existing climate capacity-building and finance mechanisms. By broadening the definition of international development vulnerability beyond economic status and strengthening capacity building support through targeted training, institutional strengthening and technology transfer, policymakers can ensure that every community facing acute environmental and sustainable development threats receives the attention, investment and policy implementation they require and demand. This strategic shift will not only serve to uphold the UN SDG and Paris Agreement commitment to ensure all communities are supported in reaching net-zero, safeguard the most climate-vulnerable and at risk settings globally, but also set the stage for a more resilient and equitable sustainable development and climate action agenda beyond 2030.

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