

CLIMATE GEOPOLITICS AND INDO-PACIFIC RESILIENCE: STRATEGIC ADAPTATION IN A CHANGING ENVIRONMENT

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ABSTRACT

This article examines how climate change has shifted from being framed primarily as an environmental problem to functioning as an instrument of power, diplomacy, and strategic influence among major powers in the Indo-Pacific region. The study adopts a qualitative comparative case study design based on structured, focused comparison of three cases, namely the United States, China, and the European Union. Each cases analysed through the same four analytical dimensions of climate geopolitics: policy instrument, material power base, institutional and normative channel, and effect on the strategic autonomy of recipient states. The findings show that the United States integrates climate resilience into its Indo-Pacific security architecture through humanitarian assistance and disaster diplomacy. In contrast, China leverages the Green Belt and Road Initiative to expand economic and technological influence, while the European Union exercises regulatory and normative power through the Global Gateway and the Carbon Border Adjustment Mechanism. The comparison shows that these three actors converge in treating climate cooperation as a channel of influence but diverge in the material base of that influence, namely logistical capacity, supply-chain and financing dominance, and market-regulatory reach. This divergence is best explained by comparative advantage rather than by three distinct designs for regional dominance. The article further distinguishes declared strategic intent, which is traceable in official documents, from geopolitical consequence, which may arise irrespective of intent, and therefore does not treat all climate cooperation as deliberate manipulation. These strategies address climate risks while simultaneously generating new dependencies and bargaining dynamics for Indo-Pacific states.

Keywords: climate geopolitics; Indo-Pacific; climate resilience; great power competition; environmental diplomacy

INTRODUCTION

The Indo-Pacific is increasingly central to the dynamics of global climate change. Ecologically, it is among the most vulnerable regions in the world, as evidenced by the rising frequency of hydrometeorological disasters, sea-level rise, coral reef degradation, and growing threats to food security. Small island states such as Kiribati, Tuvalu, and the Marshall Islands face the risk of losing their sovereign territorial space entirely (Kumar et al., 2020; Mikaelsson et al., 2025). This threat affects not only ecological conditions but also fundamental questions of sovereignty, climate migration, maritime rights, and state status (Weatherill, 2023).

During the same period, the region has become a space of geopolitical contestation

among major powers. The United States seeks to maintain strategic leadership through its Indo-Pacific Strategy, the Quad and AUKUS, and expanded partnerships with ASEAN and Pacific island states, while China extends its influence through the Belt and Road Initiative (BRI) and maritime diplomacy in the South China Sea and the South Pacific. Competition between the two has become a major factor shaping the regional security architecture (Delanova & Fadillah, 2023). Although it lacks comparable military capabilities, the European Union acts through a rules-based approach, environmental governance, and green instruments such as the Carbon Border Adjustment Mechanism (CBAM), which are reshaping regional economic relations (Otto, 2025a).

Considering these developments, climate change has evolved from an environmental issue

into an arena of diplomacy and a component of national security strategy. The United States links climate to maritime governance and security; China delivers clean energy and green infrastructure through the Green Belt and Road Initiative; the European Union employs the Global Gateway and CBAM. In each case, climate policy has become entangled with efforts to secure international status, enlarge partner networks, and shape the architecture of global governance. The issue therefore extends beyond mitigation and adaptation to encompass competition over clean energy technologies, global standards, and strategic supply chains, and it operates through development assistance, transition finance, capacity building, and disaster diplomacy. Climate change has thus become an arena of strategic interaction that shapes alignment orientations, regional policies, and global power configurations (Dafermos, 2025; Munge, 2023).

Previous Studies and Research Gap

Relevant scholarship can be organised into three clusters. The first concerns the climate-security nexus. Barnett and Adger (2007) established the foundational argument that climate change undermines human security and may indirectly raise the risk of violent conflict (Barnett & Adger, 2007). McDonald (2013) subsequently mapped four competing discourses of climate security, distinguished by their referent object, demonstrating that the meaning of climate security is contested rather than settled (McDonald, 2013). Sekiyama (2022) applied this framework to East Asia (Sekiyama, 2022), while Dalby (2014) argued that climate security in the Anthropocene requires a fundamental rethinking of geopolitical premises (Dalby, 2014). This cluster is well developed, but its analytical question concerns whether and how climate change constitutes a threat; it does not systematically examine how climate policy itself becomes an instrument of competition between major powers.

The second cluster addresses the geopolitics of the energy transition and of critical supply chains. Vakulchuk, Overland and Scholten (2020), in a systematic review, showed that the redistribution of power under decarbonisation operates primarily through control of technology, critical materials, and grid infrastructure, and criticised the field for

failing to define geopolitics and for lacking analytical frameworks (Vakulchuk et al., 2020). Farrell and Newman (2019) supplied a structural mechanism through the concept of weaponised interdependence, in which control of central network nodes generates coercive leverage (Farrell & Newman, 2019). Sun and Yu (2023) traced how China embedded environmental norms into the BRI (Sun & Yu, 2023), while Manners (2002) offered competing accounts of European external influence as market power and as normative power respectively (Manners, 2002). Otto (2025) provided empirical evidence that CBAM has induced regulatory responses in third countries (Otto, 2025a). This cluster explains mechanisms of influence well, but its empirical focus remains largely global or Euro-Atlantic and is rarely applied comparatively to the Indo-Pacific.

The third cluster concerns the agency of vulnerable states and the political economy of climate finance. Mikaelsson, Wibeck and Linner (2025), reviewing the literature on Pacific Small Island Developing States, found that scholarship tends to be dominated by the strategic interests of a small number of external powers and called for greater attention to the resilience and agency of Pacific states themselves (Mikaelsson et al., 2025). Weiler, Klock and Dornan (2018) demonstrated empirically that bilateral adaptation aid is allocated only partly according to recipient vulnerability and is also shaped by donor interests (Weiler et al., 2018). Bryson and Keener (2024) examined coordination problems in Green Climate Fund projects in the Pacific (Bryson & Keener, 2024), and Zhang (2022) showed that perceptions of Chinese influence among Pacific civil society are considerably more nuanced than external commentary suggests (Zhang, 2022). This cluster establishes that recipient states are not passive, but it typically studies one donor or one sub-region at a time.

Two gaps follow. First, although each cluster is well developed, few studies compare the climate engagement of the United States, China, and the European Union in the Indo-Pacific within a single analytical framework applied consistently to all three cases; the literature has addressed climate security extensively yet has given limited attention to climate geopolitics as an instrument of great power rivalry in this region. Second, existing accounts rarely distinguish strategic intention

from geopolitical consequence, and therefore tend to read every observable influence as deliberate manipulation, which weakens the evidentiary basis of their claims.

This article accordingly addresses three research questions. First, how does climate change reshape geopolitical competition among the United States, China, and the European Union in the Indo-Pacific? Second, through which policy instruments, material power bases, and institutional channels do these actors convert climate engagement into influence? Third, how do Indo-Pacific states, particularly Indonesia and the Pacific island states, respond to and in turn shape this competition?

The contribution is threefold. Conceptually, the article integrates climate geopolitics with the study of strategic competition among the three actors by operationalising climate geopolitics into four dimensions that generate comparable indicators, rather than treating it as a descriptive label. Methodologically, it applies a structured, focused comparison in which the same question set is posed to each case. Analytically, it introduces an explicit distinction between declared intent and observable consequence in order to discipline causal claims about the motives of external actors. The article proceeds by developing this framework, setting out the method, presenting the comparative analysis and cross-case synthesis, examining regional agency, and concluding with implications and a research agenda.

THEORETICAL FRAMEWORK: FROM ENVIRONMENTAL SECURITY TO CLIMATE GEOPOLITICS

The Conceptual Relationship Between Environmental Security, Climate Security, and Climate Geopolitics

The study of climate change in international relations has undergone a significant transformation over the past three decades. Attention initially centred on environmental security, specifically on how

ecological degradation might trigger conflict, instability, or forced migration (Barnett & Adger, 2007). This perspective subsequently developed into the concept of climate security, which positions climate change as a non-traditional security threat requiring cross-sectoral responses and international cooperation (Sekiyama, 2022). The most recent stage is the climate geopolitics framework, within which climate change is understood not only as a driver of ecological and social stress but also as a force that alters the global distribution of power, since states that master clean energy technologies, critical mineral supply chains, and climate finance acquire strategic advantage (Dafermos, 2025; Vakulchuk et al., 2020).

These three concepts are frequently used interchangeably, yet they are analytically distinct, and clarifying their relationship is essential before climate geopolitics can serve as an analytical tool. They are best understood as a sequence in which each successive concept retains the empirical concerns of its predecessor while posing a different question. Environmental security asks whether ecological change produces insecurity. Climate security asks whose security is at stake and how climate change comes to be constructed as a security issue, which is why McDonald (2013) identifies four rival discourses distinguished by their referent objects (McDonald, 2013). Climate geopolitics asks a third question: how do responses to climate change, including mitigation, adaptation, finance, technology, and regulation, redistribute influence and dependence among states? Climate geopolitics therefore presupposes climate security, in the sense that climate must already have been constructed as a matter of high politics for climate policy to function as an instrument of statecraft, but it does not reduce to it. Dalby (2013, 2014) makes this shift explicit by arguing that the relevant geopolitical question in the Anthropocene is not how the environment constrains states, but how the political economy of decarbonisation itself constitutes a new terrain of rivalry (Dalby, 2013, 2014).

Table 1. Conceptual relationship between environmental security, climate security, and climate geopolitics

Concept	Core analytical question	Referent object	Representative works
Environmental security	Does ecological change produce insecurity and conflict?	Human communities and the state	Barnett and Adger (2007)
Climate security	Whose security is at stake, and how does climate change come to be constructed as a security issue?	Contested: national, human, international, ecological	McDonald (2013); Sekiyama (2022)
Climate geopolitics	How do responses to climate change redistribute influence and dependence among states?	Relative position of states in the international system	Dalby (2013, 2014); Vakulchuk et al. (2020)

Source: processed by the author

Operational Definition and Analytical Dimensions

For the purposes of this article, climate geopolitics is defined as the process through which state and regional actors deploy, and are affected by, climate-related policy instruments, namely mitigation, adaptation, finance, technology transfer, and regulation, in ways that alter the relative distribution of influence, dependence, and bargaining power among states. Three elements of this definition are consequential. First, the object of analysis is the

instrument, not the climate impact itself. Second, the outcome of interest is relational, that is, a change in relative position rather than an absolute gain. Third, the definition is agnostic as to motive, which allows intent and consequence to be examined separately rather than assumed to coincide. The definition is operationalised through four analytical dimensions, each with observable indicators, which are applied identically to all three cases and are set out in Table 2.

Table 2. Analytical dimensions of climate geopolitics and their indicators

Dimension	Analytical question	Observable indicators
D1. Policy instrument	Which climate instrument is deployed, and through which institutional vehicle?	Type of instrument (security and humanitarian assistance, finance and infrastructure, regulation and standards); implementing agency; presence and form of conditionality
D2. Material power base	On what pre-existing capability does the instrument rest?	Control of technology and critical supply chains; volume and terms of finance; size of the regulated market; expeditionary logistical capacity
D3. Institutional and normative channel	Through which institutions and norms is influence transmitted?	Bilateral, minilateral or multilateral vehicle; standards and norms promoted; presence of extraterritorial regulatory effect

Dimension	Analytical question	Observable indicators
D4. Effect on recipient autonomy	What is the effect on the strategic autonomy of recipient states?	Concentration of supplier, creditor or technology source; number of genuine alternatives available; documented domestic policy change attributable to the instrument

Source: processed by the author

Distinguishing Strategic Intent from Geopolitical Consequence

A recurring weakness in the literature is the tendency to infer intent from outcome, so that any observed increase in the influence of an external actor is treated as evidence of deliberate manipulation. This article separates the two. Strategic intent refers to influence objectives explicitly articulated in official strategy, policy, or regulatory documents issued by the actor concerned. Geopolitical consequence refers to an observable change in the dependence, bargaining position, or policy alignment of a partner state, established through documented policy change or through concentration measures such as the share held by a single supplier or creditor, irrespective of whether such change was intended.

The distinction yields four combinations, only the first of which supports a strong claim of geopolitical manipulation. Where declared intent and observed consequence coincide, the evidence supports a claim of intentional influence. Where intent is declared but no consequence is observable, the appropriate finding is aspiration rather than influence. Where consequence is observable in the absence of declared intent, the appropriate finding is structural effect, for which Farrell and Newman (2019) supply the underlying mechanism, since a state occupying a central node in a network may exercise leverage without any coercive decision having been taken (Farrell & Newman, 2019). Where neither is present, the interaction is best described as climate cooperation without geopolitical content. Applying this test throughout allows influence to be identified where the evidence supports it while avoiding the assumption that climate cooperation is uniformly instrumental.

The relevance of this framework to the Indo-Pacific rests on two features of the region. First, it is home to Small Island Developing States facing existential threats from sea-level

rise, whose limited domestic capacity generates structural reliance on external finance and technology (Weiler et al., 2018). Second, it is the locus of sustained rivalry among the three actors examined here, each of which has incorporated climate change into its external strategy (ESCAP, 2023). The framework does not, however, presume that regional states are passive: as Mikaelsson et al. (2025) emphasise, Pacific states have exercised considerable agency in global climate diplomacy despite structural constraints, and the fourth analytical dimension is designed precisely to capture variation in that bargaining space (Mikaelsson et al., 2025).

RESEARCH METHOD

This study employs a single research design, namely a qualitative comparative case study using the logic of structured, focused comparison. The design is structured in that the same standardised question set, derived from the four analytical dimensions in Table 2, is posed to each case, and focused in that only those aspects of each case bearing on the research questions are examined. Document analysis is used as the technique of data collection within this design, and thematic analysis of policy discourse as the technique of interpretation. Neither is treated as a separate method, which avoids stacking several method labels without specifying the relationship between them.

Case Selection

Three cases were selected: the United States, China, and the European Union. The selection follows three explicit criteria. First, relevance: each maintains a formal, publicly documented climate or environmental component within its Indo-Pacific or external partnership strategy, which makes comparable document analysis possible. Second, variation on the explanatory dimension: the three differ maximally in their primary instrument of

engagement, respectively security and humanitarian assistance, infrastructure finance, and market regulation, while the region in which they operate is held constant. Third, scale: each operates at regional rather than bilateral scale. Japan, Australia, and India are consequential regional actors but are treated here as context rather than as cases, since including them would compromise the depth required by focused comparison; their inclusion is identified in the conclusion as an agenda for further research. The temporal scope runs from 2021 to 2025, beginning with the launch of the Global Gateway and the renewed articulation of climate priorities in United States Indo-Pacific policy, and extending to the most recent publicly available policy statements.

Data Sources and Source Selection Criteria

Three categories of source are used. Primary sources consist of official strategy, policy, and regulatory documents issued by the three actors, together with declarations of regional bodies such as the Pacific Islands Forum, the Alliance of Small Island States, and ASEAN. These documents are the object of analysis rather than supporting evidence, since declared strategic intent can only be established from documents issued by the actor concerned; a document was included where it was issued officially, was publicly available, and addressed at least one analytical dimension. Secondary sources consist of peer-reviewed articles published between 2013 and 2025 and indexed in Scopus or Web of Science, retrieved using combinations of the terms climate geopolitics, climate security, Indo-Pacific, Pacific Islands, Green Belt and Road, carbon border adjustment, and climate finance. An article was included where it addressed at least one analytical dimension conceptually or empirically, and excluded where its empirical focus lay wholly outside the Indo-Pacific and it offered no transferable conceptual contribution. Contextual sources, comprising IPCC, World Meteorological Organization, and ESCAP data, are used solely to establish physical and economic baselines and not to support causal claims.

Analytical Procedure and Limitations

The analysis proceeds in four steps. First, the material for each case is coded against the four dimensions using an identical question set:

which climate instrument is deployed and through which institutional vehicle; on what material capability does that instrument rest; through which institutional and normative channel is it transmitted; and what effect on the autonomy of recipient states can be documented. Second, an intra-case narrative is constructed for each actor. Third, the coded results are entered into a cross-case matrix. Fourth, each finding is classified using the intent-consequence test set out above.

A finding is reported as climate-related geopolitical influence only where three cumulative criteria are satisfied: the instrument must be climate-related; there must be evidence either of declared strategic framing in an official document or of a documented change in the behaviour of a partner state; and there must be a traceable effect on relative dependence or bargaining position, established through documented policy change or a concentration measure. Where only the first criterion is met, the interaction is reported as climate cooperation rather than influence.

Three limitations should be acknowledged. The study relies on publicly available documents and does not include interviews, so undeclared intent cannot be captured and declared intent may be under-reported for politically sensitive objectives. Attribution of policy change in recipient states to a single external instrument is inherently difficult, since domestic and multiple external factors operate simultaneously; attribution is therefore reported as plausible rather than established wherever alternative explanations remain available. Finally, the findings are analytically generalisable to the framework and to comparable regional settings, but not statistically generalisable.

RESULT AND DISCUSSION

The Indo-Pacific in the Dynamics of Climate Change

The ecological vulnerability of the Indo-Pacific has generated increasingly complex geopolitical ramifications. Small island states such as Kiribati, Tuvalu, the Marshall Islands, and Nauru are at the forefront of the impacts of sea-level rise. The Intergovernmental Panel on Climate Change projects a rise in global mean sea level of between 0.43 and 0.84 metres by the end of the century in the absence of significant emissions reductions, and atoll states with a

mean elevation of only one to two metres would be extensively inundated at these magnitudes (IPCC, 2021). Since land constitutes the physical basis of the state, this represents a tangible threat to territorial sovereignty and generates uncertainty about the continued existence of these polities.

The situation has generated intense legal debate. Statehood is generally understood to require a defined territory, yet the International Court of Justice has emphasised that the loss of land due to climate change cannot serve as a sole basis for extinguishing statehood, since the principle of state continuity must be respected in order to prevent the loss of the legal identity of entire populations (ICJ, 2025). Entitlement to an Exclusive Economic Zone is similarly contested, and several Pacific states and the Alliance of Small Island States have asserted that maritime boundaries must be respected even where physical landmasses shrink or disappear (AOSIS, 2024). This assertion functions simultaneously as a legal strategy and as an exercise of diplomatic agency, since it seeks to preserve the economic resource base on which these states depend and thereby converts legal argument into bargaining capacity.

Beyond the risk of territorial loss, the region faces an increase in the frequency and severity of hydrometeorological disasters. The World Meteorological Organization reports a marked rise in tropical cyclones, extreme flooding, heatwaves, and droughts in the South Pacific relative to the preceding two decades (WMO, 2023). Cyclone Harold caused economic losses of hundreds of millions of United States dollars across Vanuatu, Fiji, and Tonga in 2020, in economies of limited fiscal capacity, alongside displacement, damage to critical infrastructure, and disruption of health services (Ahmed & McDonnell, 2020). Prolonged droughts arising from the interaction of El Nino with climate change disrupt agriculture in Papua New Guinea, Samoa, and Kiribati, intensifying food insecurity and contributing to migration that can aggravate local social pressures and generate diplomatic friction between states (Kumar et al., 2020).

These shocks generate socio-economic vulnerability that reduces the capacity of small states to maintain domestic stability, since repeated disasters increase public debt and constrain the delivery of basic services. ESCAP reports that Pacific countries now allocate more

than five per cent of GDP to disaster management costs, substantially above the global average (ESCAP, 2023). As domestic fiscal capacity is depleted, these states become structurally more reliant on external finance. It is this structural reliance, rather than any single donor decision, that constitutes the underlying condition for climate geopolitics in the region. Adaptive capacity is moreover unevenly distributed: industrialised states such as Japan and Australia have established effective adaptation frameworks, while developing states generally contend with insufficient financial, technological, and institutional resources.

Global climate finance has consequently become a significant vector of influence, and Indo-Pacific countries depend substantially on the Green Climate Fund, the Asian Development Bank, and bilateral funding for large-scale projects (Bryson & Keener, 2024). The empirical evidence on allocation is nonetheless more qualified than is sometimes assumed. Weiler et al. (2018), analysing bilateral adaptation aid between 2010 and 2015, found that donors do take recipient vulnerability partly into account, and that physically exposed countries, poorer countries, and small island developing states are more likely to receive adaptation aid per capita, while donor interests continue to shape allocation. The appropriate conclusion is therefore not that climate finance is simply an instrument of political control, but that allocation is jointly determined by need and by donor interest, which leaves recipient states with a bargaining position that varies according to the number of alternative funders available to them (Weiler et al., 2018).

Climate Geopolitics in the Indo-Pacific: A Comparative Analysis of Three Strategies

This section applies the four analytical dimensions to each case in turn, using the same question set, before proceeding to cross-case synthesis.

The United States: Climate Resilience Within a Security Architecture

The United States has positioned climate resilience as a component of its Indo-Pacific policy, integrating environmental diplomacy, humanitarian assistance, and regional security cooperation. Official documents articulate a commitment to reducing vulnerability to climate impacts, accelerating the clean energy transition,

and supporting investment in adaptation infrastructure (The White House, 2025). In terms of the first analytical dimension, the primary instrument is therefore security-adjacent rather than financial or regulatory, and it is delivered through a combination of civilian and military vehicles. Civilian agencies support early warning systems, food security, and disaster risk management capacity, while military elements, through programmes such as the Pacific Partnership and humanitarian assistance and disaster relief (HADR) activities, function as instruments of defence diplomacy that reinforce the American strategic presence (Naqsabandiyah, 2025). This corresponds to the second dimension: the material base of United States influence lies in logistical and military capacity, specifically the ability to deploy sealift, airlift, and medical assets at short notice, a capability neither of the other actors can match at comparable scale.

The linkage between climate, disaster, and security has shifted the prevailing paradigm from an understanding of the environment as a development issue toward its treatment as a component of non-traditional security, and defence diplomacy in the region now incorporates climate adaptation elements such as joint exercises, medical assistance, and disaster response (Naqsabandiyah, 2025). Capie (2015) provides the most systematic analysis of this dynamic. Examining United States HADR operations in East Asia, he argues against the conventional description of HADR as the use of hard assets for soft power ends, showing instead that such operations simultaneously serve instrumental objectives connected to traditional military goals, including access, interoperability, and familiarity with operating environments. HADR therefore illustrates the connection between coercive and non-coercive uses of military power rather than a straightforward exercise of attraction. The American response to Super Typhoon Haiyan in the Philippines in 2013, which combined rapid logistics, mass evacuation, and military-civilian assistance, illustrates this pattern (Capie, 2015). Read through the intent-consequence test, the case exhibits both elements: the strategic value of such operations is acknowledged in United States policy discussion, and a documented consequence followed in the form of deepened alliance interoperability and expanded rotational access. The humanitarian effect was nonetheless

real and substantial, and the presence of a strategic dividend does not render the assistance insincere.

The United States has also launched Partners in the Blue Pacific alongside climate investment and blue economy partnerships, providing technical support, marine research vessels, adaptation infrastructure, and funding for coastal economic programmes (The White House, 2025). In terms of the third and fourth dimensions, the institutional channel is predominantly minilateral and alliance-based rather than multilateral (Mizo & Hauger, 2025), and the effect on recipient autonomy is ambiguous: additional partnership options expand the bargaining space of Pacific states, while the alliance framing of the initiative simultaneously narrows the room for equidistance.

China: Green Infrastructure and the Political Economy of Supply Chains

China has taken a different path by integrating its climate agenda into the Belt and Road Initiative, using renewable energy projects, adaptive infrastructure, and green investment standards to expand engagement in the Indo-Pacific and other developing regions. In terms of the first dimension, the primary instrument is therefore infrastructure finance and technology delivery rather than security assistance or regulation. This approach builds on structural advantages in the green technology supply chain, extending from solar panels and lithium batteries to smart grid systems. This constitutes the second dimension, and it is here that the concept of weaponised interdependence developed by Farrell and Newman (2019) is analytically useful: a state controlling central nodes in a production network acquires leverage as a structural property of its position, independently of any decision to exercise coercion. The scale of Chinese concentration in refining and component manufacture means that leverage of this kind exists as a structural fact. Whether it is exercised, and to what end, is a separate empirical question that should not be inferred from the structural condition alone (Farrell & Newman, 2019).

The Green BRI thus functions as an instrument of infrastructure diplomacy, connecting partner countries through networks of financiers, contractors, and technology providers, as illustrated by renewable energy

projects in the Pacific supported in part by multilateral development banks in which China is a significant shareholder (Cheng, 2023). Such projects address genuine climate needs and simultaneously alter the structure of long-term energy dependence, and both effects should be recorded rather than one being subsumed into the other.

Beyond physical projects, Chinese influence operates through green governance, including efforts to establish investment standards through initiatives such as the Green Investment Principles. This corresponds to the third dimension. Sun and Yu (2023), in a process-tracing study of the greening of the BRI, offer an account more differentiated than a purely instrumental reading. They find that the process began as norm localisation, in which international environmental norms were adopted within the policy space created by leadership ambition to make the BRI a model of global governance, and subsequently developed into norm subsidiarity as bureaucracies generated procedural and operational rules, including a rule-making methodology emphasising dialogue with host countries (Sun & Yu, 2023). On this evidence, Chinese green governance is shaped by international leadership ambition and by pre-existing South-South cooperation norms as well as by commercial interest, and is not adequately described as a simple projection of preference.

The strategy remains subject to criticism, since projects categorised as green may involve environmental standards falling short of international benchmarks, and dependence on Chinese technology and financing raises concerns regarding autonomy in long-term energy policy (Wang & Cheng, 2024). With respect to the fourth dimension, however, the evidence on recipient perceptions is more nuanced than external commentary often suggests. Zhang (2022), drawing on a survey of 210 participants and thirty follow-up interviews in Papua New Guinea, Fiji, and Tonga, found that Pacific civil society perceptions were qualified at best, that concerns regarding the BRI and Chinese aid were widespread, and that Chinese influence over civil society was weak, although influence in political, governmental, and business sectors may differ (Zhang, 2022). This cautions against inferring the extent of influence from the volume of investment. The geopolitical consequence, namely a change in the structure of energy and financing

dependence in parts of the region, is nonetheless observable irrespective of the balance of motives, and has in turn generated policy responses from the United States, Japan, and the European Union.

The European Union: Regulatory Reach and Normative Projection

The European Union presents a more regulatory and normative model, emphasising rules, standards, and governance as instruments of external influence, since its principal capability lies not in military assets or bilateral finance but in its capacity to shape international rules. The literature offers two competing accounts of this capability, and the distinction matters here. Manners (2002) characterises the European Union as a normative power whose influence derives from what it is, that is, from an identity constituted on a normative basis, operating through the diffusion of norms (Manners, 2002). Europe also seen as market of power, in which influence derives from market size, institutional characteristics, and interest contestation, and operates through the externalisation of internal regulation. The evidence examined here supports the market power reading more strongly in the Indo-Pacific context, since the mechanism through which European standards travel is access to the internal market rather than persuasion.

Since the launch of the Global Gateway in 2021, the European Union has framed development diplomacy, environmental governance, and the green economy as foundations of its external action. The Global Gateway is designed as a strategic framework for financing clean, smart, and secure infrastructure in energy, digital, transport, and connectivity, with a target of mobilising up to 300 billion euro between 2021 and 2027, and it incorporates environmental sustainability, socio-economic standards, and governance requirements as conditions of participation (Heldt, 2023). In terms of the first dimension, the instrument is therefore conditional finance coupled with regulation, and the conditionality is explicit rather than implicit.

CBAM extends this logic by providing that goods imported into the European Union and produced with high carbon intensity are subject to a carbon price aligned with the Emissions Trading System, which requires non-European exporters to internalise carbon costs in

order to maintain market access (Eva Pander Maat, 2022; Otto, 2025b). The measure is not confined in its effects to internal environmental policy: by requiring trading partners to adjust supply chains, technologies, and production processes, the European Union influences the structure of global production through external regulation (Wiridyansyah, 2025). This is the clearest instance among the three cases of the second and third dimensions operating together, since the material base is market size and the institutional channel is extraterritorial regulatory reach. Otto (2025), mapping the political reactions of 32 countries between 2019 and 2024, finds that despite initial resistance some states began adjusting their climate and environmental policies in order to preserve access to the European market. Under the intent-consequence test this constitutes documented consequence; whether it also constitutes declared intent is more contested, since CBAM is officially framed as an anti-leakage instrument rather than as a lever of external influence, and the finding is therefore best classified as a structural effect with a partially declared strategic dimension.

The regional impact is visible in major exporting economies. In Vietnam, the steel and cement industries have made significant

adjustments in response to CBAM requirements, prompting the government to strengthen its energy transition strategy and expand cooperation with the European Union on industrial decarbonisation (Wiridyansyah, 2025). Indonesia faces comparable pressure, particularly in the steel, aluminium, and palm-based product sectors, and has accelerated the establishment of a national carbon market while intensifying green trade diplomacy (Firdausy et al., 2025). Pacific island states engage with the European Union primarily through the Global Gateway, with an emphasis on transparency, governance, and sustainability that distinguishes it from the American and Chinese models (Heldt, 2023). With respect to the fourth dimension, the effect on recipient autonomy is twofold: regulatory requirements narrow the range of acceptable production and trade practices, while the availability of a third partner with a distinct model widens the space within which regional states can negotiate.

Cross-Case Synthesis: Convergence, Divergence, and Explanation

Applying the same four dimensions to the three cases permits the systematic comparison summarised in Table 3.

Table 3. Structured comparison of United States, Chinese, and European Union climate engagement in the Indo-Pacific

Dimension	United States	China	European Union
D1. Policy instrument	Humanitarian assistance, disaster relief and defence diplomacy	Green infrastructure finance and technology delivery through the Green BRI	Conditional connectivity finance (Global Gateway) and border carbon regulation (CBAM)
D2. Material power base	Expeditionary logistics: sealift, airlift and medical assets	Concentration in clean energy manufacturing, refining and project finance	Size of the internal market and regulatory capacity
D3. Institutional and normative channel	Alliance-based minilateralism (Quad, Partners in the Blue Pacific); security norms	Bilateral project agreements; Green Investment Principles; South-South cooperation norms	Extraterritorial regulation; sustainability and governance conditionality

Dimension	United States	China	European Union
D4. Effect on recipient autonomy	Expands partnership options; alliance framing narrows the space for equidistance	Deepens long-term energy and financing dependence; recipient perceptions are qualified	Constrains production and trade practices; adds a third model that widens negotiating space
Intent-consequence classification	Declared intent and observed consequence coincide; humanitarian effect substantial	Structural effect arising from network position; motives mixed rather than uniformly instrumental	Consequence documented; intent only partially declared

Source: processed by the author

Three points of convergence emerge. First, all three actors have moved climate policy from the domain of development cooperation into the domain of strategy, and in each case climate instruments are administered by agencies with explicit external policy mandates rather than by environmental ministries alone. Second, all three deploy climate instruments in a region where they simultaneously pursue non-climate objectives, so the strategic dividend of climate engagement is at minimum anticipated even where it is not declared. Third, all three engage most intensively with states whose ecological vulnerability is highest and whose fiscal capacity is lowest, precisely the population for whom the marginal political effect of external assistance is greatest.

Three points of divergence are equally clear. The instruments differ, as security assistance, infrastructure finance, and market regulation. The material bases differ, as logistical and military capacity, supply-chain and financing concentration, and market size. The institutional channels differ, as alliance-based minilateralism, bilateral project agreements, and extraterritorial regulation. The explanation for this divergence is not primarily a difference in intent but a difference in comparative advantage, since each actor deploys the instrument in which its existing capability is greatest. This is consistent with the argument of Vakulchuk et al. (2020) that positions in the energy transition are determined by control of technology, materials, and infrastructure rather than by declaratory ambition (Vakulchuk et al., 2020). The United States possesses unmatched expeditionary logistics but limited concessional finance for the region; China possesses dominant manufacturing and financing capacity but limited alliance infrastructure in the Pacific;

the European Union possesses a large regulatory market but neither expeditionary capacity nor comparable bilateral finance. The observed pattern is therefore best explained as the projection of pre-existing structural capability into a new policy domain rather than as three distinct designs for regional influence.

Two implications follow. Because the three instruments are functionally complementary rather than substitutable, regional states are not required to choose a single partner and can in principle combine security cooperation, infrastructure finance, and regulatory alignment from different sources; this is the structural basis of the bargaining space identified in the fourth dimension. Because the three instruments are governed by different institutional logics, however, they generate fragmentation in regional climate governance, with divergent standards for what counts as green infrastructure, differing conditionality regimes, and limited interoperability of reporting requirements, and the resulting compliance burden falls disproportionately on states with the least administrative capacity.

Regional Agency: Indonesia and the Pacific Island States

The preceding analysis concerns external actors. The fourth analytical dimension, however, requires examination of how regional states respond, and it is here that the article departs most clearly from accounts treating the Indo-Pacific as an object of competition rather than as a set of agents.

Indonesia is best characterised as a hedging middle power with elements of norm entrepreneurship. Hedging is used here in the sense developed by Kuik (2021), namely insurance-seeking behaviour under conditions

of high uncertainty and high stakes, in which a state declines to take sides and pursues mutually counteracting measures toward competing powers in order to preserve a fallback position (Kuik, 2021). Kuik (2016) further specifies that hedging comprises distinguishable component behaviours rather than a single undifferentiated posture, which allows the concept to be applied to specific policy domains (Kuik, 2016).

Indonesian conduct in the climate domain displays each of these attributes. Through the ASEAN Outlook on the Indo-Pacific, Indonesia has framed climate resilience as an element of cooperation connecting maritime security, sustainable development, and regional stability, within an institutional framework that is deliberately inclusive rather than aligned (Listianto, 2025). In the energy transition domain, it has accepted concessional finance from the Group of Seven and European partners through the Just Energy Transition Partnership while maintaining substantial Chinese investment in its processing and power sectors. In the regulatory domain, it has responded to CBAM by accelerating the construction of a domestic carbon market rather than contesting the measure outright, thereby converting an external regulatory constraint into an instrument of domestic policy reform (Firdausy et al., 2025).

This posture should not be read as uniformly successful. Jazuli, Roll and Mulugetta (2024), reviewing the Indonesian JETP through the dynamics of its policy regime, document a substantial gap between commitment and implementation and identify significant domestic political contestation surrounding the Partnership, including concerns regarding its debt composition and the extent of external influence over domestic energy policy. The relevant finding is therefore that hedging expands the range of available options without guaranteeing implementation capacity, and that the binding constraint in the Indonesian case lies in domestic institutional and political conditions rather than in the availability of external partners (Jazuli et al., 2024). Indonesia also exhibits characteristics of a norm entrepreneur within limits, since its promotion of the ASEAN Outlook as an inclusive framework and its advocacy of transition arrangements reflecting the circumstances of middle-income producers constitute attempts to shape the terms of regional climate governance. It is not, however,

accurately described as a strategic balancer, since it has consistently declined to organise its climate diplomacy around opposition to any single external actor.

Pacific island states, by contrast, have acted primarily as normative actors and have shaped the global agenda to a degree disproportionate to their material capabilities. Fiji chaired COP23 and advanced the case for a global loss and damage mechanism, which contributed to the establishment of a dedicated fund at COP27, and Pacific states draw on their empirical experience of climate impacts to establish moral standing on climate issues (WMO, 2023). Competition among the three external actors over funding strategies has strengthened their bargaining position in selecting partners. Mikaelsson et al. (2025) confirm this pattern, finding that Pacific SIDS engage proactively in global climate diplomacy despite structural constraints, and cautioning that scholarship has tended to be organised around the strategic interests of a small number of external powers rather than around the agency of the states concerned. The present article seeks to avoid that tendency by treating regional response as an analytical dimension rather than as a residual category (Mikaelsson et al., 2025). The cases of Kiribati and Tuvalu illustrate the point, since the assertion that loss of territory does not automatically extinguish statehood preserves their international legal capacity and, in doing so, sustains the value of their political support in multilateral forums (ICJ, 2025).

Implications for Regional Order

The analysis indicates that climate issues in the Indo-Pacific operate at three levels of power. At the structural level, climate change shifts the centre of gravity of global attention toward the most ecologically vulnerable regions, such that the Indo-Pacific has become a principal theatre for human security and non-traditional security agendas. At the instrumental level, major powers deploy climate policy tools as vehicles of engagement, and as the cross-case synthesis indicates, these tools correspond to three distinct comparative advantages rather than to three distinct intentions. At the normative level, small Pacific states have shaped global discourse by emphasising their identity as among the most vulnerable nations, while Southeast Asian states use ASEAN, the East Asia Summit, and the ASEAN Regional Forum

to propose more inclusive frameworks. States previously regarded as peripheral now possess a demonstrable capacity to shape discourse and negotiate their interests strategically.

Climate tensions may nonetheless generate new security configurations, since reliance on digitalised renewable energy infrastructure introduces cyber vulnerabilities in sectors where supply is highly concentrated, and the enforcement of measures such as CBAM may generate economic disputes between the European Union and regional exporters. Where climate finance arrangements among the three actors remain unharmonised, fragmentation in global governance is likely to deepen. Countervailing opportunities are equally present: regional states can draw on multiple sources of finance, including the Green Climate Fund, the Asian Development Bank, and bilateral schemes, to accelerate transition and strengthen negotiating capacity. Climate geopolitics is therefore not only a manifestation of great power rivalry but also an opening for a shift in the regional balance of influence, and the manner in which regional states manage this challenge will determine whether the Indo-Pacific becomes an increasingly contested arena or a platform for cooperation capable of supporting a more sustainable and inclusive international order.

CONCLUSION

In the Indo-Pacific, climate change has become a significant strategic concern in international relations. Low ecological resilience, uneven adaptive capacity, and reliance on external finance have made the region a focus of engagement by the United States, China, and the European Union. Applying a structured, focused comparison across four analytical dimensions, this article finds that the three actors converge in treating climate policy as a domain of strategy but diverge systematically in instrument, material base, and institutional channel, and that this divergence is best explained by comparative advantage rather than by three distinct designs for regional dominance, since each actor projects its pre-existing structural capability into a new policy domain.

The relationship between strategic intent and geopolitical consequence is likewise variable rather than uniform. For United States disaster diplomacy, declared framing and

observable consequence coincide while the humanitarian effect remains substantial; for Chinese supply-chain concentration, structural leverage exists as a property of network position irrespective of any decision to exercise it; for European regulation, consequence is well documented while intent is only partially declared. Climate cooperation in the region should therefore not be characterised uniformly as deliberate geopolitical manipulation, and claims of influence require evidence of both instrument and effect.

Three implications follow for policy in the region. For Indo-Pacific states, the functional complementarity of the three external instruments means that partner diversification is a viable strategy, and that the principal determinant of bargaining position is the number of genuine alternatives available in each functional domain rather than the total volume of assistance received. For Indonesia specifically, the evidence indicates that the binding constraint on the effectiveness of hedging is domestic institutional capacity rather than external partner availability, which suggests that investment in implementation capacity would yield greater strategic return than further diversification of partners. For regional organisations, the fragmentation of standards, conditionality regimes, and reporting requirements across the three external models imposes a compliance burden that falls most heavily on states with the least administrative capacity, which establishes a practical case for regional harmonisation of green infrastructure standards and climate finance reporting through ASEAN and the Pacific Islands Forum.

The findings are subject to the limitations identified in the method section, principally the reliance on publicly available documents, the difficulty of attributing policy change to a single external instrument, and the analytical rather than statistical basis of generalisation. Four lines of further research follow. First, the framework should be extended to secondary external actors, particularly Japan, Australia, India, and South Korea, whose instruments do not map neatly onto the three cases examined here. Second, the intent-consequence test would benefit from elite interviews with policymakers in both donor and recipient states, allowing undeclared intent to be examined directly. Third, the fourth analytical dimension invites quantitative operationalisation through concentration indices

measuring supplier, creditor, and technology dependence over time. Fourth, comparative application to other vulnerable regions, in particular the Caribbean and the Western Indian Ocean, would test whether the observed relationship between comparative advantage and instrument choice holds beyond the Indo-Pacific.

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