

Issue Paper



From Commitment to Execution: Climate Governance at SB64 and the Road to COP31- Jack Huang, Co-founders of Global SDGs Alliance

Global Supply Chain Restructuring: From Efficiency to Resilience and Taiwan's Policy Strategy- Sheng-Ming Wang, Associate Research Fellow, Department of International Affairs, Taiwan Institute of Economic Research



Issue Paper

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1. Introduction

The global economic and policy landscape is entering a period in which implementation capacity, resilience, and institutional adaptability are becoming increasingly important. Climate action is moving from the formulation of ambitious commitments toward the difficult task of execution, while geopolitical tensions and repeated disruptions are prompting governments and businesses to reconsider how global production networks should be organized. Together, these developments are reshaping the conditions under which economies participate in international trade, investment, and industrial cooperation.

The first article in this issue examines this shift through the evolving architecture of global climate governance. Drawing on developments at the 64th Sessions of the UNFCCC Subsidiary Bodies (SB64), the article highlights the growing emphasis on implementation as governments confront persistent challenges involving climate finance, adaptation, carbon markets, just transition, and the increasingly important intersection between climate policy and international trade. For Taiwan, these developments carry significant implications for export industries, carbon market development, and industrial policy.

The second article turns to another major structural transformation. Recent crises have exposed the vulnerabilities of production networks designed primarily around efficiency and cost minimization, encouraging firms to pursue diversification, de-risking, and more resilient regional production arrangements. Taiwan must therefore consider how to strengthen supply chain security while preserving the openness and technological advantages that underpin its global competitiveness.

Together, the two articles illustrate how sustainability, economic security, and resilience are becoming increasingly interconnected. For Taiwan, responding effectively will require not only strong technological and manufacturing capabilities, but also the institutional capacity to anticipate change, manage emerging risks, and adapt to an increasingly complex global economic environment.



2-1. From Commitment to Execution: Climate Governance at SB64 and the Road to COP31

Jack Huang

Co-founders of Global SDGs Alliance

Introduction

Bonn in June is rarely a spectacle. There are no heads of state, no splashy communiqués, and the global press largely looks elsewhere. Yet for those who follow climate governance with any seriousness, the 64th Sessions of the UNFCCC Subsidiary Bodies¹, which concluded on June 18, 2026, carried more diagnostic value than many a COP. What Bonn revealed was not simply the state of negotiations, but the underlying tensions that will define whether the Paris Agreement’s ambitions survive contact with political and fiscal reality. The meeting drew 9,206 registered participants, including 4,198 party delegates, and produced a record that is, in equal measure, cautiously encouraging and sobering².

SB64 was the first major multilateral climate meeting since COP30 in Belém, Brazil, and its mandate was framed accordingly: to translate the political ambitions of Belém into workable technical and institutional architecture ahead of COP31 in Antalya, Türkiye, in November 2026. The phrase circulating among diplomats and observers alike was that climate governance has entered its “implementation era” — a shift from debating what to commit to, toward the far harder questions of who pays, who executes, and how we verify that any of it actually works. If Bonn confirmed one thing, it is that the implementation era will not be a smooth transition.

The Negotiating Landscape: Early Promise, Persistent Stalemate

In a small but notable departure from recent years, the subsidiary bodies adopted their agendas and launched substantive negotiations on the very first day — a procedural achievement that generated

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1. IndexBox. (2026, June 19). Bonn SB64 outcomes: Just transition progress, electrification target, and COP31 preview. <https://www.indexbox.io/blog/bonn-climate-conference-sb64-ends-sets-stage-for-cop31-in-turkiye/>.
 2. International Institute for Sustainable Development (IISD). (2026, June). Inside Bonn Climate Change Conference 2026. <https://www.iisd.org/events/inside-bonn-climate-change-conference-2026>



genuine optimism in the opening hours. That optimism did not last. According to the Earth Negotiations Bulletin's closing summary, negotiations on the Mitigation Work Programme, the Global Goal on Adaptation (GGA), the transition of the Adaptation Fund to exclusively serve the Paris Agreement, just transition, and research and systematic observation were all “especially fraught”³. On a number of agenda items, parties could not even agree to forward a document capturing progress made in Bonn as a basis for continued work at COP31.

One meaningful outcome did emerge: parties agreed to select the UN Environment Programme (UNEP) as the new host of the Climate Technology Centre Secretariat, ensuring technological support to developing countries into 2027⁴. It is a modest but concrete result. Beyond that, however, much of the substantive agenda ended in impasse or was deferred, underscoring what UNFCCC Executive Secretary Simon Stiell acknowledged in his closing remarks: “considerable gaps persist” and governments should not wait for Antalya to begin closing them.

The Finance Fault Line: Record Numbers, Real Shortfalls

Finance ran as a fault line through virtually every workstream in Bonn. Developed countries arrived pointing to official figures showing that climate finance from advanced economies reached a record \$136.7 billion in 2024⁵, arguing they are broadly meeting their obligations under existing frameworks. Developing countries pointed to something else entirely: the rapid erosion of that financing base through aid cuts — particularly from the United States since 2024 — drops in contributions to multilateral funds such as the Green Climate Fund, and the near-total absence of new pledges for 2026 and beyond. All of this sits against a backdrop in which parties had agreed in 2024 on a new collective quantified goal (NCQG) of \$300 billion per year for developing countries by 2035.

The adaptation finance issue was particularly acute. A commitment made at COP30 to triple international adaptation financing stalled in Bonn, with developing countries seeking grant-based support to protect themselves from escalating climate hazards and developed countries pushing back on the financial architecture required to deliver it. According to observers from CARE International

3. International Institute for Sustainable Development (IISD). (2026, June). Inside Bonn Climate Change Conference 2026. <https://www.iisd.org/events/inside-bonn-climate-change-conference-2026>

4. UNFCCC. (2026). June Climate Meetings (SB64). <https://unfccc.int/sb64>

5. Carbon Brief. (2026, June 18). Bonn climate talks: Key outcomes from the June 2026 UN climate conference. <https://www.carbonbrief.org/bonn-climate-talks-key-outcomes-from-the-june-2026-un-climate-conference/>



at the Bonn meetings, approximately 15 percent of adaptation finance currently reaches recipients as grants, with the majority structured as loans — compounding debt burdens. for the countries least responsible for the emissions driving their vulnerability⁶. This is not merely a distributional equity problem. It is a structural contradiction at the heart of the Paris Agreement’s adaptation framework.

The deeper issue is that multilateral public finance, even if fully delivered, cannot close the gap that credible 1.5°C scenarios require. International financial institutions have estimated that annual climate investment needs now reach into the trillions, and no realistic mobilization of public funds from OECD governments is sufficient to meet that scale alone. What this implies is consequential: the pace of the clean energy transition will ultimately be determined not by diplomatic commitments but by whether private capital can be systematically channeled into climate-compatible investment at scale. Climate governance is, in this sense, becoming as much a financial architecture question as a geopolitical one.

Trade and Climate: A Long-Overdue Reckoning

Perhaps the most structurally significant development at SB64 was one that received far less attention than it deserved: the launch of the first-ever formal dialogue on climate change and trade under the UNFCCC. Created as part of the “global mutirão” framework agreed at COP30 in Brazil, this inaugural dialogue is the first of three such exchanges mandated between 2026 and 2028. Observers from the thinktank E3G described the tone as “pragmatic” despite clear tensions — and the choice of language is revealing. Pragmatism typically signals that parties have agreed to disagree on fundamentals while maintaining a shared interest in sustaining the conversation.

The immediate catalyst is not hard to identify. The European Union’s Carbon Border Adjustment Mechanism (CBAM), which formally entered its transitional phase in 2023 and is moving toward full implementation, has generated significant friction with trading partners who regard it as a unilateral climate measure dressed up in the language of market correction. The EU, for its part, defends CBAM as necessary to prevent carbon leakage and to maintain the integrity of its Emissions Trading System — an argument that is economically coherent but politically contentious when it lands on industries in countries that have contributed least to historical emissions. The EU delegation in Bonn made clear that CBAM is not a negotiating chip; it is environmental policy that happens to have trade effects.

6. *Down to Earth*. (2026, June 8). *Bonn Climate Conference 2026: SB64 sets stage for COP31 on adaptation, climate finance and fossil fuel transition*. <https://www.downtoearth.org.in/climate-change/bonn-climate-conference-2026>



What is genuinely new is that these tensions are now formally inside the UNFCCC space. For years, the trade-climate interface was handled through parallel channels: the WTO's Committee on Trade and Environment, the OECD's International Forum on Carbon Mitigation Approaches, and bilateral diplomatic exchanges. Bringing them into the SB process creates both opportunity and risk. The opportunity is that the UNFCCC, as the authoritative multilateral climate body, has political legitimacy that no trade forum commands on climate questions. The risk is that trade disputes are inherently adversarial in a way that climate negotiations are not, and importing that adversarial dynamic could complicate already-fragile consensus-building on core items like finance and adaptation.

The IISD and E3G have both flagged the importance of ensuring that the Bonn dialogues complement rather than duplicate work underway in the WTO and other fora⁷. As carbon pricing, industrial policy incentives, and deforestation-linked trade measures proliferate across major economies, the regulatory landscape is fragmenting in ways that smaller and developing economies find difficult to navigate. For countries like Taiwan, South Korea, and emerging Southeast Asian exporters, the proliferation of climate-linked trade measures by the EU and potentially the United States represents a structural shift in the rules governing market access. This is no longer a future concern; the transition is underway.

Carbon Markets and the Integrity Question

Negotiations on Article 6 of the Paris Agreement continued in Bonn, with parties working through the technical architecture of Article 6.2 bilateral carbon trading and the Article 6.4 centralized mechanism. The substantive stakes here are considerable. Global voluntary carbon markets have expanded rapidly over the past several years, but persistent concerns about the quality and additionality of carbon credits have generated a credibility crisis that threatens to undermine corporate decarbonization claims built on offset purchases. The Bonn negotiations are, in essence, an attempt to build the regulatory infrastructure that would allow carbon markets to function as genuine instruments of mitigation rather than accounting convenience.

For the business community, the trajectory of these negotiations has direct operational implications. If the Article 6 rulebook achieves sufficient rigor, carbon credits issued or traded under the UNFCCC

7. International Institute for Sustainable Development (IISD). (2026, June). Inside Bonn Climate Change Conference 2026. <https://www.iisd.org/events/inside-bonn-climate-change-conference-2026>



framework will carry a level of governmental imprimatur that the voluntary market currently lacks. ESG commitments backed by Article 6 credits would be materially more defensible against claims of greenwashing. Conversely, continued fragmentation and quality uncertainty in the carbon market will intensify regulatory and reputational risk for companies that rely on offset-based net-zero claims. The direction of travel at SB64 suggests that standards will tighten; the timeline remains uncertain.

The Rhetoric-to-Reality Problem: Observations from the Conference Floor

One of the recurring themes at SB64, expressed most directly by youth organizations and civil society representatives participating in side events, was a growing impatience with the gap between climate discourse and climate action. As a participant representing the Global SDGs Alliance (GSA) at a side event on June 15, the author observed firsthand the frustration shared by partners from Africa, Europe, and Asia: too many resources continue to flow into conferences, institutional messaging, and branding exercises, while the funding actually reaching community-level actors with demonstrated implementation capacity remains severely constrained.

In a joint press statement on June 15, the GSA and the Association Club Amis de la Planète (ACP) from Cameroon called for a reorientation of climate investment away from institutional overhead and toward measurable impact at the local and sectoral level. The argument is not novel, but its persistence across successive negotiating sessions suggests it reflects a genuine structural problem rather than rhetorical posturing. The world does not lack climate awareness. After a decade of aggressive sustainability communication and ESG promotion, public and institutional recognition of the climate crisis is broadly established. What remains scarce is funding for the people and organizations actually capable of doing something about it.

What Taiwan's Government, Industry, and Academia Should Take from SB64

Taiwan occupies an unusual position in global climate architecture. Excluded from formal UNFCCC participation by political circumstance, it is nonetheless deeply embedded in the global economy in ways that make it acutely exposed to the regulatory shifts Bonn has accelerated. accelerated.



Three areas warrant particular attention from Taiwanese government, industry, and research communities.

The first is CBAM and supply chain exposure. Taiwan's export economy is heavily concentrated in manufacturing sectors, semiconductors, electronics, petrochemicals, machinery, that are either directly targeted by CBAM or embedded in supply chains of companies that are. As the EU's CBAM moves toward full implementation and other major trading partners consider analogous measures, Taiwanese exporters face a structural incentive to accelerate decarbonization not merely as ESG compliance but as a condition of market access. The Bonn trade-climate dialogue signals that these measures will be defended at the highest levels of international governance; there is no realistic prospect of rollback.

The second is carbon market participation and credentialing. As Article 6 infrastructure matures, companies operating under jurisdictions with functioning carbon pricing or trading systems will enjoy a significant advantage in terms of credit quality, auditability, and access to climate finance instruments. Taiwan's emerging carbon market, currently in its early institutional phase, needs to develop in ways that align with evolving international standards rather than in isolation. Academic institutions and think tanks have a role here: rigorous independent research on carbon market design, credit integrity, and alignment with Article 6 rulebooks is needed well beyond what government agencies alone can produce.

The third is the just transition dimension. COP30's adoption of the Belém-Antalya Mechanism (BAM) for operationalizing just transition, which received meaningful attention at Bonn, reflects a broadening consensus that the energy transition must be managed with explicit attention to worker displacement, community impacts, and economic diversification. For Taiwan, which faces its own structural adjustments as the global economy reorients around clean technology and decarbonized supply chains, this is not merely a developing-country concern. Industries dependent on fossil fuel-intensive processes will face labour market disruptions that require proactive policy — and the international frameworks being negotiated now will increasingly set the normative standards against which national approaches are evaluated.

Looking Toward COP31: What Antalya Must Deliver

COP31, co-hosted by Türkiye and Australia, arrives against a backdrop that SB64 has clarified but not resolved. Türkiye is expected to lead on the Action Agenda, a constellation of sectoral



commitments on electrification, urban resilience, efficiency, and clean industrial transition that operate alongside formal negotiations. Australia, heading the negotiating process, has signaled that adaptation, fossil fuel transition, and climate finance will be the central pillars⁸. Both co-hosts also find themselves operating in the shadow of the West Asian energy crisis triggered by the Strait of Hormuz disruptions, a development that has given fresh urgency to the energy security arguments for decarbonization in ways that climate advocates have long sought but rarely achieved through persuasion alone.

On adaptation, Antalya inherits a genuine mess from Bonn. The GGA indicators process remained stuck on whether the taskforce developing underlying data and methodologies should be expert-driven or party-controlled, a debate that is ostensibly technical but is in practice a proxy for the finance dispute, since developing countries fear that an expert-driven process will produce indicators calibrated to what is measurable rather than what is needed⁹. Until the finance architecture for adaptation is credibly resolved, technical progress on indicators will remain hostage to political distrust.

On the just transition, Bonn has done real preparatory work. The BAM framework, if it can be operationalized at COP31 with concrete timelines and finance linkages, would represent one of the more significant institutional innovations of the current negotiating cycle. The emphasis from civil society observers is that the mechanism must be understood as a conduit for existing finance flows rather than a new funding vehicle — a framing that may help navigate the fiscal caution of developed-country governments while still delivering meaningful support.

The fossil fuel transition agenda also arrives at COP31 with momentum from outside the formal UNFCCC process. The First Conference on Transitioning Away from Fossil Fuels, held in Santa Marta, Colombia, in late May 2026, produced a coalition-of-the-willing dynamic that several delegations cited positively at Bonn as evidence that the climate regime can evolve beyond the constraints of universal consensus¹⁰. Whether this energy can be translated into formal UNFCCC outcomes at Antalya, or whether it will remain in the parallel track of voluntary initiatives, is one of the defining questions of the year.

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8. Down to Earth. (2026, June 8). Bonn Climate Conference 2026: SB64 sets stage for COP31 on adaptation, climate finance and fossil fuel transition. <https://www.downtoearth.org.in/climate-change/bonn-climate-conference-2026>
 9. Carbon Brief. (2026, June 18). Bonn climate talks: Key outcomes from the June 2026 UN climate conference. <https://www.carbonbrief.org/bonn-climate-talks-key-outcomes-from-the-june-2026-un-climate-conference/>
 10. Carbon Brief. (2026, June 18). Bonn climate talks: Key outcomes from the June 2026 UN climate conference. <https://www.carbonbrief.org/bonn-climate-talks-key-outcomes-from-the-june-2026-un-climate-conference/>



Conclusion: The Real Competition Has Already Begun

Bonn 2026 did not produce a breakthrough. But it clarified the terms of competition in the decade ahead more sharply than a successful COP might have. The countries, companies, and institutions that will lead in the post-carbon economy are not those with the most elegant sustainability reports or the most ambitious voluntary pledges. They are those building genuine transition capacity: the ability to decarbonize supply chains, integrate clean technology, access increasingly sophisticated climate finance instruments, and navigate a global regulatory environment in which climate performance is becoming a hard market condition.

The signal from SB64 is not pessimistic. Negotiations are difficult precisely because the stakes are high and the obligations are real. The implementation era is harder than the commitment era because it requires not just political will but institutional capacity, financial architecture, and verifiable execution. These are problems that technical expertise, sound policy design, and serious private sector engagement can help solve. The question is whether the months between Belém and Antalya will be used to close the distance between where the world agreed to go and the mechanisms actually capable of getting it there.

For Taiwan's government, business, and academic communities, the message is direct: this is no longer a conversation happening in someone else's room. The trade-climate interface, carbon market standards, just transition frameworks, and climate finance architecture being negotiated in Bonn and Antalya will shape the operating environment for Taiwan's export industries, its capital markets, and its industrial policy for the next decade. Observation from the sidelines is not a sustainable strategy.



2-2. Global Supply Chain Restructuring: From Efficiency to Resilience and Taiwan's Policy Strategy

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Introduction

For several decades, global supply chains expanded through increasingly specialized production networks. Multinational enterprises located research, component manufacturing, assembly, and distribution wherever comparative advantages offered the greatest efficiency. Lower transportation and communication costs, combined with advances in information technology, allowed firms to coordinate complex operations across borders. Just-in-time production, lean inventories, and concentrated procurement reduced costs and supported the rapid growth of global trade. East Asia, in particular, became an important manufacturing hub as companies integrated suppliers across multiple economies.

Recent disruptions have exposed the limitations of an operating model designed primarily around efficiency. Trade tensions between the United States and China, the COVID-19 pandemic, Russia's war against Ukraine, and restrictions affecting strategically important products have demonstrated how a disruption at one location can affect production far beyond its borders. Governments and businesses are consequently reassessing the balance between cost competitiveness and supply security. This transformation does not necessarily signal the end of globalization. Rather, it points toward a new phase in which resilience, diversification, and reliability have become integral to decisions about investment, sourcing, and international cooperation.

From Specialized Global Production to Strategic Diversification

The traditional global value chain relies on the ability to divide production into specialized tasks. A semiconductor, automobile, or information and communications technology product may pass through



several economies before reaching consumers. This arrangement enables firms to benefit from industrial clusters, skilled labor, scale economies, and advanced technology. Yet specialization can also create concentrated dependencies. When a critical component is produced by only a few suppliers, even a relatively inexpensive input can become a bottleneck for an entire industry. Companies may understand their direct suppliers while having limited visibility into the second- and third-tier firms on which those suppliers depend.

The pandemic illustrated this vulnerability as shortages of semiconductors, medical equipment, shipping capacity, and automotive components disrupted manufacturing and distribution. The war in Ukraine subsequently highlighted the exposure of energy, agricultural, and industrial supply networks to geopolitical shocks. Meanwhile, trade restrictions and industrial policies have introduced uncertainty beyond ordinary fluctuations in prices and demand. Businesses must now consider export controls, transportation chokepoints, regulatory changes, and the possibility that an otherwise efficient source of supply could suddenly become unavailable.

In response, companies are adopting strategies such as China Plus One, nearshoring, friend-shoring, and dual sourcing. Some maintain established production facilities while developing additional capacity in Southeast Asia, India, Mexico, or other markets. Others retain globally dispersed operations but locate especially sensitive production stages closer to major customers or trusted partners. These approaches are not interchangeable: proximity can shorten delivery times, while geographic diversification can reduce exposure to a localized disaster. A resilient network therefore requires a combination of alternative suppliers, adequate inventories, flexible logistics, and the ability to shift production when disruptions occur.

The practical meaning of resilience also differs across industries. For standardized goods, a firm may be able to switch suppliers relatively quickly, provided that specifications and quality controls are comparable. In advanced manufacturing, however, alternative sources often require lengthy qualification, specialized equipment, and close collaboration between engineers and customers. An apparently diversified list of first-tier suppliers can therefore conceal dependence on a single upstream process or technology provider. Companies should evaluate the time needed to restore production, not simply count the number of suppliers. This distinction is particularly relevant to high-technology production networks, where continuity depends on the synchronized availability of materials, machinery, skilled personnel, and reliable electricity.



De-risking and the Emergence of Regional Supply Networks

Supply chain restructuring is increasingly described in terms of de-risking rather than comprehensive decoupling. Severing existing commercial relationships can be costly and, in industries characterized by deep specialization, technically impractical. Firms instead seek to reduce excessive dependence on individual suppliers, locations, or transportation routes without abandoning the benefits of international trade. The result may be a more regionalized pattern of globalization: several interconnected production networks with some overlapping capabilities, rather than a single network optimized solely for minimum cost.

This transition involves difficult trade-offs. Building a second production facility, qualifying a new supplier, or holding additional inventory requires capital. Smaller suppliers may lack the resources to satisfy multiple customers' demands for traceability, cybersecurity, and contingency planning. Relocating production does not automatically eliminate risk if several alternative factories continue to rely on the same upstream materials or logistics infrastructure. Moreover, an excessive emphasis on domestic production can raise prices and weaken the gains from specialization. The relevant policy question is therefore not how to produce everything at home, but which vulnerabilities justify additional investment and which can be managed through diversified international partnerships.

Government policy is becoming an important factor in these decisions. The United States and the European Union have adopted measures intended to strengthen selected strategic industries and diversify sensitive supply chains. Their approaches differ in design and scope, but both illustrate a broader shift toward treating industrial capacity, supply reliability, and economic security as interconnected concerns. Such measures may create opportunities for new investment while also increasing compliance costs and the risk of competing subsidy regimes. Transparent rules, predictable trade procedures, and cooperation among partners remain important if resilience policies are to reinforce rather than fragment international production.

Regionalization also creates new questions for trade governance. As firms operate parallel networks in different markets, they may encounter divergent rules of origin, product standards, investment screening procedures, and documentation requirements. Differences in these rules can erode the benefits of diversification, especially when components must cross borders repeatedly. Trade facilitation and regulatory transparency therefore complement industrial resilience. Regional economic forums can provide practical venues for exchanging information about disruptions, improving customs



cooperation, and developing interoperable approaches to supply chain data. Such cooperation need not require identical industrial policies; it can focus on reducing avoidable transaction costs while preserving each economy's ability to address legitimate security concerns.

Taiwan's Position in a Reconfigured Global Supply Chain

Taiwan is deeply integrated into international production networks through semiconductors, electronic components, information and communications technology, precision machinery, and related manufacturing services. Its advanced industrial clusters and experience in coordinating cross-border production create opportunities as companies redesign their sourcing arrangements. At the same time, Taiwan depends on overseas markets, energy, raw materials, and numerous specialized inputs. Disruptions to upstream suppliers, maritime transportation, or overseas manufacturing locations can therefore affect domestic production even when final assembly takes place elsewhere.

Taiwan's challenge is to preserve the efficiency and technological advantages of its existing industrial ecosystem while improving its capacity to withstand external shocks. Supply chain restructuring could expand demand for reliable manufacturing partners, but these opportunities should not be assumed to arise automatically. Firms must demonstrate continuity of supply, compliance with changing regulations, and the ability to coordinate with customers operating across different jurisdictions. Public policy can support these adjustments by addressing information gaps, strengthening shared infrastructure, and facilitating cooperation that individual enterprises may be unable to establish on their own.

Policy Recommendations: Building Resilience Without Sacrificing Openness

First, Taiwan should establish a more systematic framework for identifying and managing supply chain vulnerabilities. Relevant agencies could work with industry associations to map critical production inputs and assess import dependence, supplier concentration, substitutability, inventory coverage, and recovery time. Periodic stress tests should examine scenarios such as a prolonged shipping disruption, an export restriction, or the loss of a major overseas supplier. Because sensitive commercial information is involved, reporting arrangements should protect confidential data while providing firms with useful early warnings. Risk assessments should distinguish between products that require strategic inventories and those for which diversified sourcing is a more cost-effective response.



Second, diversification should be pursued through targeted international industrial cooperation rather than indiscriminate relocation. Taiwan can deepen partnerships with the United States, Japan, European economies, and other Asia-Pacific partners in manufacturing, research, logistics, and supplier development. Joint supplier qualification, reciprocal business matching, and cooperation on standards could reduce the cost of establishing alternative production links. Investment promotion should consider the resilience of the entire production network, including upstream components and supporting services, rather than focusing exclusively on headline investments in final manufacturing..

Third, Taiwan should help small and medium-sized enterprises participate in resilient supply networks. Large manufacturers often have the resources to identify alternative suppliers and establish overseas operations, whereas smaller firms face greater financial and informational constraints. Shared risk-assessment tools, accessible financing, supplier certification assistance, and training in customs compliance and cybersecurity could help smaller businesses respond to new customer requirements. Government-supported industry platforms could also connect SMEs with overseas buyers seeking qualified alternative suppliers, allowing diversification to create opportunities across a wider range of domestic firms.

These recommendations require a clear division of responsibilities. Government should concentrate on public goods such as infrastructure, trade facilitation, risk intelligence, and the coordination of emergency responses. Industry should retain responsibility for commercial sourcing decisions, supplier qualification, and operational contingency plans. Public-private consultation can help identify where a disruption would create consequences beyond an individual firm, thereby providing a stronger rationale for targeted intervention. Time-limited support, periodic review, and transparent eligibility criteria would reduce the danger that resilience initiatives become permanent protection for uncompetitive activities. A practical strategy must also account for the different needs of large manufacturers, logistics companies, and smaller specialized suppliers.

Fourth, digital supply chain visibility and logistics preparedness deserve greater attention. Secure data-sharing systems can help firms identify upstream dependencies, monitor shipment delays, and coordinate responses to disruptions. However, digitalization must be accompanied by appropriate cybersecurity protections and interoperable standards. Taiwan should also strengthen contingency planning for major ports, transportation corridors, and essential industrial services. Exercises involving government, logistics operators, and manufacturers could test whether information-sharing arrangements and alternative routes function effectively during a crisis.



Finally, resilience policy should remain compatible with open and rules-based trade. Broad localization requirements or poorly coordinated subsidies may impose substantial costs without eliminating common upstream risks. Taiwan should prioritize transparent investment conditions, efficient customs procedures, international standards cooperation, and regular dialogue with trading partners. Clear performance indicators—including supplier diversity, time to recover, and the proportion of critical inputs with qualified alternatives—would help policymakers evaluate whether public support delivers measurable improvements rather than merely shifting production from one location to another.

Conclusion

Global supply chain restructuring reflects a fundamental change in how governments and firms assess the costs of international production. Efficiency and specialization remain essential, but recent crises have shown that low-cost supply is of limited value when a critical input cannot be delivered. The emerging model is neither complete deglobalization nor a return to fully domestic production. It is a more strategic form of international specialization that combines diversified sourcing, selective redundancy, better information, and reliable partnerships.

Implementation should proceed in stages. An initial phase could establish shared terminology, identify the most consequential dependencies, and develop confidential channels for exchanging risk information. A second phase could pilot stress tests in selected industries and test cooperation with overseas partners. Over time, the resulting evidence could inform decisions about infrastructure, strategic inventories, and supplier development. This phased approach would allow Taiwan to adjust policy as production technologies, trade rules, and geopolitical conditions evolve, while avoiding the assumption that every industry requires the same level of intervention.

For Taiwan, the priority is to translate its manufacturing capabilities and international connections into greater adaptability. A coordinated strategy encompassing risk mapping, targeted cooperation, SME support, digital visibility, and logistics preparedness would help firms respond to a changing global environment. By preserving openness while investing in the ability to anticipate, absorb, and recover from disruptions, Taiwan can remain an important participant in evolving regional and global value chains.



3. Conclusion

The two articles in this issue approach global economic transformation from different but increasingly interconnected perspectives. The discussion of SB64 and the road to COP31 demonstrates that international climate governance is entering an implementation-oriented phase in which commitments must be translated into credible financing, regulatory frameworks, carbon market mechanisms, and concrete transition strategies. The analysis of global supply chain restructuring similarly shows that resilience can no longer remain an abstract objective; it must be supported by diversified sourcing, improved risk visibility, logistics preparedness, international cooperation, and effective public-private coordination.

These transformations are increasingly converging. Climate-related trade measures and carbon standards are becoming part of the operating environment for internationally engaged industries, while supply chain decisions are increasingly influenced by sustainability requirements alongside cost, technology, and geopolitical considerations. For Taiwan, this convergence is particularly important because of its deep integration into global manufacturing and export networks. Changes in international climate governance and supply chain structures therefore have direct implications for its industrial competitiveness and participation in global markets.

The policy challenge is consequently not simply to respond to individual regulatory changes or external disruptions. Taiwan will need to strengthen its capacity for continuous adaptation. Aligning carbon market development with evolving international standards, preparing industries for climate-related trade requirements, improving supply chain risk management, supporting SMEs, strengthening digital visibility and logistics preparedness, and deepening international cooperation can all contribute to this objective.

Ultimately, both articles point toward the growing importance of execution. Whether addressing climate transition or supply chain resilience, policy commitments must be accompanied by institutional capacity and practical mechanisms for implementation. Taiwan's ability to combine sustainability with competitiveness, and openness with resilience, will be critical to maintaining its position in evolving regional and global economic networks.



