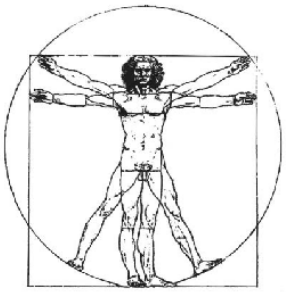

Bulk Purchasing as a Climate Finance Multiplier

Lessons from Small Island Developing States, Article 6.8, and Climate Technology Deployment

Update of the 2021 Policy Brief on International Bulk Purchasing as an NMA: Using Article 6.8 of the Paris Agreement to reduce the cost of climate technology

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Executive Summary

In 2021, ecbi published a policy brief, which proposed international bulk purchasing as a non-market approach (NMA) under Article 6.8 of the Paris Agreement. The authors of the brief argued that aggregating demand for climate technologies could lower costs, widen access to mitigation and adaptation technologies, and open new avenues for cooperation among developing countries.

Five years later, the international policy landscape has dramatically changed. Supply chain disruption initially caused by the COVID-19 pandemic and deepened by wars and conflicts in many regions of the world, higher shipping costs, new tariffs and trade tensions, and rising demand have all eroded the purchasing power of climate finance, while public international climate finance pledges have decreased as budgetary priorities have shifted to defence and social spending. This raises a question that the original brief only touched on given that it was written in a world where both international public climate finance availability and commitments were expanding: How can we increase the efficiency with which strained public climate finance is converted into climate change mitigation or adaptation outcomes?

This paper argues that bulk purchasing has matured from a procurement technique into a useful way to improve climate finance effectiveness. Drawing on national implementation experiences from Antigua and Barbuda and Mauritius and on emerging regional initiatives, it argues that bulk purchasing can reduce technology costs, improve finance efficiency, manage supply chain risk (through direct purchasing from suppliers), strengthen disaster preparedness, lower beneficiary indebtedness, and crowd in the private sector. Bulk purchasing can also support the implementation of Article 6, especially Article 6.8, since it can provide a concrete and easily measurable activity that is currently absent from most Article 6.8 approaches[1]. While Article 6.8 brings potential benefits related to its convening and coordinating function, whether the NMA Platform in its current form can achieve these benefits remains unclear. Different vehicles are available to deliver bulk purchasing, including through national efforts, regional and global cooperation through the Paris Agreement and its Financial Mechanism, the Climate Technology Centre and Network (CTCN), and Article 6.8, as well as other efforts outside the UNFCCC process, similar to the Organisation of Eastern Caribbean States (OECS) Pharmaceutical Procurement Service and development bank led joint procurement facilities. For example, under Article 6.8, multiple countries could collaborate to ensure that international and national climate funds, and multilateral and bilateral development banks, as well as philanthropies and other donors apply bulk purchasing as a climate finance efficiency improvement mechanism at as large a scale as possible. To make this a reality, the current Article 6.8 review process would need to orient the NMA Platform towards potentially becoming a coordination catalyst for bulk purchasing, particularly in those countries and regions where it has the most potential to reduce costs and, thus, increase impact, such as in small island developing States (SIDS) and least developed countries (LDCs).

[1] The Adaptation Benefit Mechanism (ABM), the first approach officially submitted to the NMA Platform under Article 6.8, also tries to improve the measurability of adaptation interventions, thereby improving adaptation efficiency (ABM, 2026).

1. Introduction

International approaches to climate finance have long centred on mobilising larger volumes of resources[2]. However, over the last couple of years, lofty goals to increase international climate finance, as enshrined in the New Collective Quantified Goal on Climate Finance (NCQG) agreed at COP29 in Baku 2024, have faced the dire reality of severe cuts in international public climate finance. To prevent these funding cuts from leading to a vicious cycle of decreasing adaptation in vulnerable countries and reduced mitigation in places where mitigation efficiency would normally be very high, adaptation and mitigation benefits in the face of shrinking funding must be maintained as much as possible. Countries, such as SIDS, which have small populations, fragmented markets, high freight costs, and long import chains, have routinely faced higher costs for adaptation and mitigation technologies than those countries with larger markets. Bulk purchasing was first proposed to narrow that gap (Müller et al. 2021). Practical experiences since then suggest its implications are broader, bearing not only on how efficiently scarce finance is used but also on how supply chain risk is managed and how the private sector is brought in.

2. The New Global Context

2.1 Supply chain disruption due to COVID-19 and wars and conflicts erupting in areas critical for the production of goods and transport

From 2020 onwards, the COVID-19 pandemic exposed the fragility of international supply chains and pushed freight costs to exceptional levels: the cost of shipping a container on the world's ocean routes rose roughly seven-fold in the eighteen months after March 2020 (IMF, 2022). Those costs fed straight into prices — International Monetary Fund (IMF) research found that when global shipping costs double, headline inflation rises by about 0.7 percentage points. While the pandemic abated in 2022, the Russian war against Ukraine (since 2022), the Red Sea conflict (since late 2023), and the Gulf/Hormuz war (since 2026), which are all critical for the production of goods and transport (UNCTAD, 2024 and 2025; Drewry, 2026), as well as the imposition of ad hoc trade barriers (see Section 2.1 below), have led to similar disruptions. As of early July 2026, the Drewry World Container Index stood at about US$4,530 per 40-foot container — up roughly a quarter in a single month, around 74% higher than a year earlier, and at its highest level since 2024 (Drewry WCI, 2 July 2026).

The burden is obviously heaviest where sea freight counts the most. A typical SIDS already pays, on average, about twice as much to transport its imports as a typical developed country (UNCTAD, 2021). When freight costs surged, UNCTAD projected that import prices in SIDS could rise by around 24% and consumer prices by about 7.5%, far greater than the impact on large economies, where the simulated increase was around a single percentage point. The IMF study reaches the same conclusion, finding the inflationary impact highest among small island

[2] In this paper, climate finance refers to finance flowing from developed to developing countries under the UNFCCC and the Paris Agreement — the flows over which the Parties have some direct policy control.

economies that depend heavily on imported goods. A cost increase felt as a ripple in a continental economy arrives in an island economy as a wave.

2.2 Tariffs compounding geopolitical shocks

Besides risks related to military conflicts directly impacting on production and trade, the increased willingness of large countries to implement trade protectionism often leads to unpredictable trade wars that result in further increases in import costs.

The effects are exacerbated if the good is moving through several countries before reaching its destination, which is often the case for SIDS. Much of what SIDS import, including most standardised climate technologies, is manufactured in China, but governments and private sector actors in islands rarely purchase directly from China. The usual route runs through a third country intermediary market. For example, goods travel from the Chinese manufacturer to (most commonly) the United States and are then re-exported to the islands (at least in the case of the Caribbean). The island buyer, therefore, pays much higher prices before the item ever reaches its intended destination.

A similar scenario plays out across every SIDS region, with only the intermediary changing. In the Pacific, Chinese manufactured goods typically reach the islands through wholesalers in Australia and New Zealand, with Fiji's port of Suva adding a further transshipment layer for the smaller islands, and the US-affiliated northern Pacific islands supplied through Hawaii and Guam. In the Indian Ocean, the United Arab Emirates (UAE) is the primary source of imports for the Seychelles and ranks among the top five trading partners of every Indian Ocean island nation (Carnegie Endowment, 2022), with Colombo and Singapore serving the Maldives. For the Atlantic African SIDS, the route runs through European ports, primarily the Iberian and Canary Islands. In each case, the island buyer pays an intermediary market's wholesale and retail margins plus a second leg of freight, a structural feature of SIDS trade, and, therefore, a saving that bulk purchasing can capture in every region.

The reasons islands rarely buy directly from the manufacturers are largely procedural rather than commercial. Most public procurement manuals in SIDS contain no rules or procedures for direct international purchase and very limited provision for online purchasing, so the intermediary route is often the only compliant one. However, this is changing. Online platforms have emerged as a major procurement channel, attractive not only with respect to price but because supplier reviews and trade assurance mechanisms provide a form of due diligence that procurement rules never anticipated. A distinction should also be drawn between direct purchase — a single buyer sourcing from the manufacturer — and bulk purchase, in which demand from multiple buyers is aggregated before sourcing. The two are complementary: direct purchase removes the intermediary, while bulk purchase adds volume leverage and shared transaction costs.

In addition, the intermediary routes are no longer reliable and predictable. When the United States began raising tariffs on Chinese goods — stepping up from a few per cent to ten, then fifty, then into triple digits — the cost landed on island businesses. The point is not the headline rate, which keeps changing; rather, it is that the United States used to be a fixed, predictable

environment to buy through. The fact that it no longer is, with little chance of the situation returning to what it was, is reason enough to revisit any procurement routed through an intermediary market. Buying directly from the manufacturer is not only cheaper; it takes the supply out of someone else's tariff policy.

This is the chain that Antigua and Barbuda's Department of Environment (DOE) deliberately broke for solar systems with batteries, polycarbonate hurricane shutters, water tanks, lumber, small wind turbines (5kW for farmers), air to water systems, PVC roofing, and water proofing treatment for roofs. Instead of buying through the United States, Antigua went straight to the manufacturers. The landed price in the country was well over 60 to 70% below what Antigua would have paid for the same goods bought through the United States (DOE, 2024b). By the time local distribution and a social inclusion margin were added, the household saving still came to about 40%. This particular case represents the entire direct sourcing scenario in one example: aggregate the demand, go to the manufacturer, shorten the chain, and a large part of the cost that was commonly viewed as unavoidable simply disappears.

2.3 Climate finance — lofty goals, disconcerting reality, and the need for efficiency

The debate around international climate finance has historically focussed on quantity. The US $100 billion target agreed at UNFCCC COP16 in Cancun in 2010 on public international climate finance and finance mobilised, as per the summary report of OECD (2025), was finally reached in 2022. In 2024, it stood at US$136.7 billion, about three-quarters of which came from public finance, with the remainder mobilised by the private sector.[3]

While reaching this target was a milestone, developing countries continue to argue for a greater share of grants compared with loans, increased adaptation finance and, crucially, much greater volumes of international climate finance overall. Negotiations on the NCQG were driven by estimates that developing countries require financing of the order of US$1.3 trillion annually by the 2030s, far above the old US$100 billion benchmark, with needs estimated at US$310–365 billion per year in the 2030s for adaptation (UNEP, 2025).

At COP29 in Baku in 2024, Parties adopted the NCQG as follows: a core target of at least US$300 billion per year by 2035 that includes international public and mobilised finance, calculated mostly in the same way as the US$100 billion target[4], with developed countries "taking the lead", and a broader objective to work toward US$1.3 trillion per year by 2035 from public, private, multilateral, bilateral, and innovative sources.

While the goals seem to be growing substantially, the problem is that both the US$100and the US $300 billion targets were set in nominal terms. For the former, roughly US$139–150 billion per year would have to be spent in the mid 2020s to be equivalent to 2009's US$100 billion. In 2035 (Center for Global Development, 2024), this equivalent would require around US$220 billion, so the real value only increases by 40% instead of tripling. The climate finance question thus

[3] It should be noted that the OECD estimates are criticised by NGOs to be severely overestimated, see e.g. Oxfam (2026).
[4] All contributions from multilateral development banks, including those received from developing countries, are now counted towards this goal.

remains highly contested, and, in practice, there is no clarity regarding how either of the agreed targets will be delivered.

This debate is happening during a time of fiscal tightening within donor countries and resulting massive reductions in Official Development Assistance (ODA) budgets, that were historically used for the provision of international climate finance. Already in 2024, global public climate finance fell by 6%, whereas for LDCs, reductions reached 24% (CPI, 2026). The UK has reduced its international public climate finance budget in absolute terms by almost 50% from its previous value of GBP 11.6 billion (over five years) to GBP 6 billion for the next three years (Gabbatiss, 2026), equal to an annualised reduction of nearly 14%. Germany has reduced its development finance budget by 23% between 2023 and 2027, and climate finance is likely to fall proportionally (ZDF, 2026). The Swiss government has announced a 24% reduction in development assistance, including climate finance, for the period up to 2030 (SRF, 2026).

In an environment where public international climate finance is decreasing, optimising its impact per unit of finance input is essential. This paper suggests using a *climate-finance efficiency ratio* can help achieve this. For mitigation, this ratio would be assessed through tonnes of CO_2 equivalent mitigated by US$1 spent. For adaptation, the process would be more complex as adaptation benefits can be expressed in different metrics. Michaelowa and Stadelmann (2018) discuss whether some of these metrics could be used; for example, the ABM (2026) has four approved methodologies that apply different metrics. Bulk purchasing improves these ratios by lowering procurement costs and, thus, overall project cost.

Since 2021, two opposing influences on the climate-finance efficiency ratio have emerged. Rising freight costs, especially pronounced for SIDS, massive tariffs on mitigation technologies, and a higher cost of capital since 2022 generally drive the ratio down, while the massive decrease in manufacturing costs of solar modules, wind turbines, and batteries (IRENA, 2026) improve it. Bulk purchasing can address the former and thus enable capturing the latter, more positive impact.

2.4 Non-market approaches (Article 6.8)

Article 6 of the Paris Agreement contains three principal provisions. Two of these, Articles 6.2 and 6.4, are market based and involve the transfer of emissions credits (mitigation outcomes). The third, Article 6.8, was brought in as a counterweight by governments opposed to markets, particularly Bolivia which demanded non-market approaches (NMAs) (Michaelowa et al. 2021). Although not well defined, NMAs are generally recognised as including a broad range of measures to encourage collaboration, knowledge-sharing, technology transfer, and capacity building in order to:

- promote mitigation and adaptation ambition;
- enhance public- and private-sector participation in the implementation of NDCs; and
- enable opportunities for coordination across instruments and relevant institutional arrangements.

COP26 in 2021 established the Glasgow Committee on Non-Market Approaches (GCNMA); COP26 formally established and adopted the NMA Work Programme and COP27 adopted the Programme's schedule and agreed on a web-based NMA Platform; and later COPs agreed on processes for national NMA Focal Points and reviews of progress. 2026 is the formal review year of the Article 6.8 Work Programme (Alliance Biodiversity–CIAT 2026).

While the review is currently underway, recent discussions atSB64 in June 2026 in Bonn highlighted ongoing foundational questions, including the question of what counts as an NMA and how they differ from existing mitigation and adaptation cooperation initiatives. Finance remains a key issue, with some developing countries arguing for Article 6.8 to become a vehicle for the mobilisation of finance, while most donor countries resist what they see as potential duplication of existing climate finance channels, notably the Financial Mechanism and the multilateral climate funds. Governance reform is also on the table, with the role of the GCNMA being scrutinised and some Parties discussing whether its mandate should be strengthened or whether new institutional arrangements are needed to improve the operationalisation of Article 6.8.

While the benefits that bulk purchasing could bring to Article 6.8 include bringing Article 6.8 to life with tangible activities, the question of what Article 6.8 can contribute to bulk purchasing deserves attention. In principle, it could deliver:

- *Recognition and visibility*, by raising awareness regarding the potential for bulk purchasing to improve the effectiveness of climate finance. Article 6.8 could initiate and lead the way concerning the use of bulk purchasing, which could also be applied by other financing institutions, such as the Adaptation Fund, Green Climate Fund (GCF), Global Environment Fund (GEF) and LDC Fund (LDCF);
- *Coordination and cooperation*, by functioning as a coordination hub and serving as a matchmaking platform among technology providers, recipient countries, climate funds, and donor countries. It could be used to enhance the scale of cooperation to a level where the benefits of bulk purchasing would be maximised by covering entire regions — and potentially linked to the Global Climate Action Agenda and its targets; and
- *Standardisation*, by developing common standards and guidance on procurement approaches, measurement, reporting and verification (MRV) technologies, finance efficiency indicators, and other standards needed to assess the reach and benefit of bulk purchasing, which would help reduce transaction costs for government entities engaging in bulk purchasing collaboration, especially if several countries are involved.

A bulk purchasing-oriented NMA (ecbi, 2021) could facilitate access to existing financial support from multilateral funds and donor agencies through entry points for interested parties (convening) and the sharing of relevant information and knowledge (optimising). However, the NMA Platform (UNFCCC, 2026) to date lists only five Article 6.8 activities, indicating that it is not yet deemed highly relevant in terms of mobilising mitigation and adaptation activities and that several activities listed on the Platform have been unable to reach full maturity, largely due to the lack of dedicated finance and institutional support.

The next section addresses how bulk purchasing as a climate finance efficiency mechanism could make a difference.

3. Lessons from Bulk Purchasing in SIDS

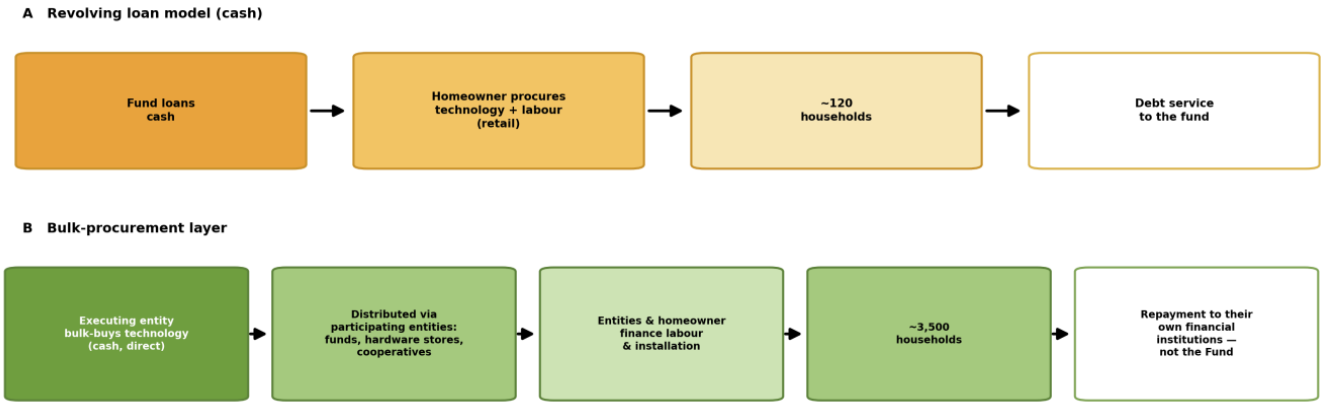
Building on two bulk purchasing case studies in SIDS — one from the Caribbean and one from the Indian Ocean — this section reflects on the advantages and disadvantages of this approach and draws general lessons on how to design bulk purchasing.

3.1 Two case studies from Antigua and Barbuda and Mauritius

The GCF Enhanced Direct Access (EDA) project in Antigua and Barbuda, managed by the Sustainable Island Resource Framework (SIRF) Fund, aims to increase the resilience of homes and shelters (churches) against flooding. In its first phase, the Fund lent cash to households, and each homeowner bought the necessary technologies — solar panels with batteries, hurricane shutters, and air conditioning units — at retail prices and paid for the labour. After approximately 120 households received loans, uptake stalled as pandemic-era shipping and material costs surged (DOE, 2024a). The project was relaunched in 2024 with the executing entity (the DOE of Antigua and Barbuda, through the SIRF Fund) buying the technology in bulk, with upfront payments, directly from the manufacturers (DOE, 2024b; DOE and SIRF Fund, 2024), thereby cutting technology costs by about 30%. The SIRF Fund, hardware stores, and fishermen's, teachers', and police cooperatives diffused the technologies. Beneficiaries paid for labour and installation and repaid their own financial institutions, keeping SIRF capital for lower-income families. The bulk procurement model has now reached some 3,500 households — roughly thirty times the number of households reached in the first phase.

The economies of scale are stark. A revolving bulk procurement budget of roughly US$2.5 million has financed some 8,000 inverter air conditioners, capped at two per household to broaden access, and around 10,000 polycarbonate sheets for hurricane shutters. The items were made available via credit systems with repayments recycled into fresh stock as beneficiaries pay, so the capital continues working. The traditional loan model with no bulk purchasing, by contrast, absorbed just over US$8 million across roughly 300 loans. The DOE obtained 1,500 solar streetlights and granted them to communities, schools, and sporting complexes. The technology was valued at US$2 million and had a significantly greater impact than if the entities had received a cash grant to procure the technology. Figure 1 provides an overview of the two approaches taken.

Figure 1. From cash lending to bulk procurement



The second case study, under the Home Solar Project, the Central Electricity Board (CEB) of Mauritius — the national utility — involves the installation of 10,000 rooftop solar PV systems on homes, with a focus on social housing. The project is being financed by a US$10 million concessional loan from the Abu Dhabi Fund for Development (ADFD) under the IRENA/ADFD Project Facility, which is covering half the total cost, with the CEB financing the rest. The systems are supplied and installed free of charge to beneficiary households, which receive a free baseline electricity allowance for consumption as a hosting incentive, and surplus generation is injected into the grid. At completion, the programme had delivered around 10 MW of distributed capacity, saving an estimated 15,000 t CO_2e and roughly US$400,000 annually. Around 2,000 households were reached in the first phase (IRENA, 2024).

While in Antigua the aggregator was a national climate fund, in Mauritius it was a national utility. As such, bulk purchasing does not depend on one particular institution; rather, it requires any credible demand aggregator with the mandate and creditworthiness to buy at scale, whether it be a fund, a utility, a cooperative, or — as explored later — a regional institution. Aggregation continues to emerge spontaneously in SIDS because it works. However, a deliberate regional version has not yet been achieved; this is where Article 6.8 could become a key catalyst as outlined in Section 4.

3.2 Designing bulk procurement to maximise benefits and minimise trade-offs

Bulk purchasing must prevent the procuring entity from becoming dependent on a single supplier or even engaging in corrupt behaviour regarding the supplier. This could also be deliberate, echoing approaches of "tied aid", which has been applied in the past. A solution for this challenge is to require tendering among several qualified suppliers.

A common concern is that government-led bulk purchasing displaces local businesses. However, the experience of Antigua and Barbuda suggests otherwise. Air conditioner purchases were capped at two units per household. As many beneficiaries would otherwise have imported directly from overseas, the programme competed mainly with foreign imports rather than local retailers. Polycarbonate hurricane shutters were not previously available locally, so the programme

created a market rather than replacing one. The reality is that bulk purchasing excels where local markets do not exist because the technology is brand new or local markets have failed to provide the technologies at competitive costs. Thus, bulk purchasing must be developed in a way that enables existing retailers to continue to distribute, install, and service technologies; where conditions allow, opportunities to capture local economic value from manufacturing or fabrication of climate technologies should be taken.

The executing role of a bulk purchasing approach need not sit with a government department. In Antigua, it sat with a national fund and in Mauritius, with a utility. This confirms that many kinds of entities can serve as executing, purchasing, or distributing agents, and using several entities at once crowds in the private sector and removes single channel bottlenecks. Candidate agents include:

- **Utilities —** bulk purchasing on behalf of consumers, with on-bill repayment or hosting incentives, as in Mauritius;
- **Insurers with finance arms —** bundling resilience technologies with insurance coverage; financed technologies (shutters, backup power, efficient cooling) also reduce the insurers' own claims exposure, aligning commercial and resilience incentives;
- **Cooperatives —** a fishermen's, teachers' or police cooperative, for example — as ready-made aggregators of member demand and as channels for financing labour and installation;
- **Credit unions and NGOs —** natural aggregators of community demand; and
- **Local suppliers, hardware stores, and installers —** retained for distribution, installation, and after-sales service.

While bulk purchasing requires warehousing, inventory management, and logistics, all of which generate costs, such infrastructure can be designed for dual use, also supporting disaster preparedness, emergency response, and post-hurricane reconstruction. A single facility can serve as a climate technology hub in normal times and an emergency supply and reconstruction logistics centre following a disaster — a strong rationale for adaptation financial support, and a natural point of synergy with the Adaptation Fund.

3.3 Conditions where bulk procurement will be most effective

Generally, bulk purchasing has the most to offer where several of the following hold:

- **Small or fragmented domestic markets** with limited supplier competition, where no single buyer commands volume discounts;
- **High import dependence and freight-cost differentials** such as in SIDS, where transport alone can double the delivered cost relative to large economies;
- **Standardised, interoperable technology needs** — solar PV, batteries, inverters, efficient lighting and cooling, and water technologies — where a technology can be specified and standardised once and then purchased many times over;
- **A credible aggregating institution** already exists or can be readily created, such as a national fund, a utility, a cooperative network, or a regional body with procurement experience;

- **Exposure to supply-chain and tariff volatility**, which rewards direct sourcing and price lock-in; and
- **Hard-currency and fiscal constraints** that make every point of procurement saving a point of additional reach.

SIDS fit this profile most comprehensively, which is why they anchor this paper. However, any group of countries with small economies with an existing pooling institution can apply the same logic. For example, landlocked LDCs also face analogous freight penalties and thin markets.

4. Regional Aggregation: The Next Step

The case studies of a fund in Antigua and a utility in Mauritius prove that the model works at the national scale. Despite this, a national SIDS market, however well aggregated, is still a small and shallow market. Real economies of scale (the kind that moved prices in India's LED programme (ecbi, 2021) for example, arrive only when demand is pooled across countries. Regional aggregation is, therefore, the logical next step, and the institutions to carry it already exist: in the Caribbean, the OECS, whose pooled-procurement mechanism for pharmaceuticals has run for three decades, the Caribbean Community (CARICOM), and the Caribbean Centre for Renewable Energy and Energy Efficiency (CCREEE); in the Pacific, the Pacific Community (SPC) and the Pacific Centre for Renewable Energy and Energy Efficiency (PCREEE); in the Indian Ocean, the Indian Ocean Commission; and, across regions, the Alliance of Small Island States (AOSIS) and national climate funds acting in concert. Attention should also be given to the valuable experience of bulk purchasing of vaccines in the African Union and whether lessons can be drawn with respect to climate technologies.

CCREEE is the most developed of these prospects and is progressing in a deliberate manner. As the regional energy transition institution for CARICOM, CCREEE is in the early stages of positioning itself to act as a bulk purchasing agent for the region, aggregating demand for standardised energy technologies across its member states and designing that role with Article 6.8 objectives built in from the start, rather than retrofitted later. Where Antigua and Mauritius show aggregation emerging spontaneously, CCREEE represents the first deliberate attempt to construct a regional version: a standing institution whose procurement function is conceived, from the outset, as an NMA under the Paris Agreement.

This is the institutional form the rest of this paper assumes: a regional aggregator that does not simply buy, but, as the next section describes, becomes a one-stop shop in which procurement, finance, and greenhouse gas mitigation quantification are handled centrally for the entire region.

5. The Role of Article 6.8 in Promoting Bulk Procurement

This section sets out the pros and cons for making bulk purchasing an NMA under Article 6.8. Article 6.8 offers bulk purchasing recognition and visibility, coordination and cooperation, and standardisation with verification; bulk purchasing offers Article 6.8 the tangibility that many initiatives listed on the NMA platform have been lacking to date. One challenge, however, is that

as Article 6.8 carries no dedicated finance, and donor countries are oppose it becoming a finance mobilisation vehicle. Thus, a bulk-purchasing NMA must bring its own finance (climate funds, concessional windows, or in-kind provision) and use Article 6.8 for recognition and coordination rather than funding.

5.1 Recognition and visibility

For its part, Article 6.8's added value to bulk purchasing is its convening power, recognition, and a home: a reporting framework and platform that gives a regional procurement programme international standing; convening among Parties; coordination among donors contributing to a pooled purchase; and facilitated access to existing multilateral finance. Müller et al. (2021) identified bulk purchasing's added value to Article 6.8 as its immediate practicality that can be applied in many contexts: an activity that is transactional, measurable, cheap to verify, attractive to recipients because it multiplies reach, and attractive to donors because it provides options to expand to other manufacturers other that the traditional ones. It provides benefits for both parties to the transaction, which is what a voluntary cooperative framework requires to gain traction.

5.2 Coordination and cooperation

The regional aggregation described Section 4 above is a good starting point for the design of bulk purchasing as an NMA under Article 6. The larger the group of countries that collaborates, the larger the "bulk" and the larger the cost savings compared to diffuse procurement. While the Antigua case led to over 30% savings, the massive Indian UJALA (Unnat Jyoti by Affordable LEDs for All) programme achieved 87% savings (Müller et al. 2021).

When demand is aggregated regionally, transparent outcomes are achieved in an efficient manner. As a bulk purchase is one documented activity, in one standardised technology, in known quantities, the mitigation or adaptation impact can be calculated centrally and by applying a single methodology — and thus enables an understanding of the climate finance efficiency ratio described in Section 3.3. The regional aggregator therefore becomes a one-stop shop: procurement, finance, and greenhouse gas quantification handled in a single institution, in a single pass.

The resulting quantified stream of mitigation benefits from bulk purchasing is Article 6-ready, and countries retain the choice of what to do with it. It can be reported as an NMA under Article 6.8, with no transfer of mitigation outcomes between Parties. Alternatively, , the same measurement backbone may be robust enough to underpin cooperative approaches under Article 6.2 or apply approved baseline and monitoring methodologies under Article 6.4. A stepping-stone benefit exists here as well: the registry, methodology, and verification capacity built for a bulk purchasing NMA is precisely the institutional infrastructure a host country needs to participate in the market mechanisms later, should it choose to; thus, donor support for the non-market programme also builds future carbon market readiness. Bulk purchasing also naturally transfers capacity rather than trading outcomes.

A further donor benefit that deserves attention is accountability. A donor contribution made as cash must be tracked through intermediaries, budgets, and procurement chains before it can be reported against the donor's climate finance target, a task that requires administration at both ends and still leaves the attribution contestable. A contribution made as technologies delivered in bulk under an Article 6.8 arrangement is self-documenting: the units shipped, landed, distributed, and installed are all on record, and the same commercial paper trail that satisfies Article 6.8 verification as discussed below satisfies the donor's own reporting toward its target.

5.3 Standardisation and verification

This one-stop shop structure provides a response to those who object to Article 6 participation of any kind based on the belief that MRV overhead is prohibitive for small activities. Baseline setting, monitoring, and verification cost roughly the same whether an activity covers fifty or five thousand households — a fixed cost that has effectively locked small, distributed, household-level action, the layer SIDS most need, out of Article 6. Bulk purchasing dissolves that problem structurally rather than incrementally:

- **One transaction, one dataset.** The procurement record is the activity data — exact unit count, exact specification, exact deployment schedule. No survey is needed to establish what was installed where, as the aggregator's own delivery and warranty records carry it.
- **One methodology applied once.** Standardised units mean the per-unit mitigation/adaptation benefit is calculated a single time and multiplied — instead of thousands of bespoke household assessments.
- **One verification event.** An auditor verifies the aggregator's books and a sample of installations, and the whole cohort is verified. Per-unit verification costs decrease as volume increases — the transaction cost curve bends downward with scale, the opposite of project-by-project MRV.
- **Verifiability is inherent, not bolted on.** A bulk purchase leaves a paper trail due to its commercial nature — invoices, bills of lading, customs entries, distribution logs. The evidence exists whether or not anyone intended to report under Article 6.

In short, bulk purchasing makes the Article 6.8 transaction manageable and verifiable at costs small actors can actually carry.

The accountability tracks are parallel but distinct. Each donor's contribution — aggregated with those of other donors in a pooled purchase — is accounted for as climate finance under Article 9 of the Paris Agreement, through the Agreement's transparency arrangements, while the cooperation itself is monitored and reported under the Article 6 framework. One activity, therefore, feeds two ledgers — finance provided, cooperation delivered — without double counting, because the same commercial paper trail serves both and records each donor's share as a documented tranche within it.

Figure 2. Structure of an Article 6.8 bulk procurement collaboration and how it becomes a win-win approach.

Figure 2. One transaction, three targets: a single aggregated bulk purchase delivers the recipient's climate targets, satisfies the donor's climate finance reporting under Articles 4.3 and 11, and gives Article 6.8 a concrete, verifiable activity — the same climate impact at X − Y (where X is the counterfactual retail cost and Y is the bulk purchasing saving) from one shared paper trail, with hardware and facilitation counted separately to avoid double counting.

5.4 Why donors may support bulk purchasing

For donors, the value of bulk purchasing extends beyond improving climate finance efficiency. It can strengthen supply chain resilience, accelerate technology deployment, support regional cooperation, and create markets of sufficient scale to attract private sector participation. Bulk purchasing also generates visible and measurable outcomes, which can facilitate monitoring, reporting, and accountability. In addition, by demonstrating impact and value for money, bulk purchasing may help strengthen the political sustainability of international climate finance in donor countries.

5.5 Drawbacks of including bulk purchasing under Article 6.8

While Article 6.8 brings potential advantages to a bulk procurement activity, the mechanism itself remains largely unproven, which may deter some parties from engaging. Whether the potential benefits will outweigh the possible downsides, which potentially include time spent in completing Article 6.8 paperwork and possible additional reporting requirements, remains unclear. Governance arrangements for Article 6.8 could be amended, which also brings

uncertainty. There is a risk that Article 6.8 could duplicate functions already performed by climate funds, development banks, regional institutions, and bilateral cooperation arrangements.

In light of the review of Article 6.8 — ongoing at the time of writing this paper — it will be important that any changes made to the mechanism maximise the benefits of packaging bulk purchasing under Article 6.8 while minimising any risks and costs. Bulk purchasing clearly makes sense, including through bilateral and multilateral channels. However, the benefits of bringing future bulk purchasing activities under Article 6.8 must be made explicit.

Bulk purchasing should, therefore, be judged on its own merits, with Article 6.8 assessed according to whether it adds practical value beyond what could already be achieved through existing bilateral, regional, national, and multilateral channels.

6. Policy Recommendations

Bulk purchasing as an organised, focused approach to implementing the Paris Agreement, including Article 6, is not yet systematically included in the design of projects and programmes for climate change mitigation and adaptation within, for example, the Financial Mechanism of the Convention. Changes in the international landscape and political realities do not alter the need for rapid decarbonisation and adaptation; the reality, however, is that not enough funding exists. Bulk purchasing offers an efficiency that traditional procurement approaches and project design have not been able to accomplish. It can be pursued at the national level, as in the cases of Antigua and Barbuda and Mauritius. It can also be pursued at the regional and international levels — the latter through programmatic approaches in the GCF, Adaptation Fund, GEF, and LDCF, as well as through the CTCN and Article 6.8 cooperation.

Article 6.8 cooperation offers a framework to properly recognise and account for efficiency gains and pool multiple funders to further increase those gains by enhancing procurement through bilateral to multilateral approaches.

Regional climate centres, already supported by donor agencies, could serve as convenors for a bulk purchasing approach, which might include bringing these efforts under Article 6.8 if the advantages of doing so were clear. The centres could deliver technologies directly to NGOs and the private sector, by applying procurement from a range of vetted suppliers so beneficiaries would retain choice, including channels that reach the private sector directly. Visibility through discussions under the Paris Agreement, which might include Article 6.8, could lead to the incorporation of bulk purchasing into Financial Mechanism and CTCN guidance, and might even harness private sector resources provided under the Global Climate Action Agenda.

7. Conclusion

Five years of practical experience suggest bulk purchasing is far more than an efficient procurement tool. It increases the efficiency of increasingly scarce climate finance, manages supply chain risk, enables operationalisation of Article 6.8 through a practical and verifiable activity type, strengthens private sector participation, offers donors a legitimate and visible

channel for engagement, and accelerates technology deployment. For SIDS, it offers one of the most practical pathways for converting limited finance into transformational outcomes. While none of these are substitutes for greater volumes of climate finance, bulk purchasing does ensure that whatever level of climate finance is available is converted into impact sooner. The next generation of climate finance programmes should treat bulk purchasing not as an optional procurement strategy but as a core component of climate finance delivery.

The relationship runs both ways. Article 6.8 gives bulk purchasing recognition and a home, a matchmaking platform among technology providers, recipient countries, climate funds, and donor countries, and a venue for developing standardised guidance on procurement approaches and MRV that other financing institutions, including the GCF, Adaptation Fund, GEF and LDCF, can adopt. The cost savings rest on buying directly from the manufacturer, cutting out middlemen and governments levying tariffs, and aggregating demand, which will lead to better commercial conditions.

In the short term, bulk purchasing needs to be promoted at the ministerial level and within the donor community, picked up nationally and bilaterally by both donor and recipient countries, and followed by pilot regional demand aggregation through existing institutions, regional climate centres, and accredited entities, using technologies from a range of suppliers. The pilots could also be recorded as NMAs under Article 6.8.

In the longer term, successful international collaboration under the Paris Agreement could lead to the consideration of bulk purchasing in guidance related to the Financial Mechanism and the Technology Mechanism with standardised procurement and MRV guidance that enables any fund or donor to subscribe to the approach. Article 6.8 could be one of the vehicles for delivering much needed focus and discussion on how to expedite the introduction of bulk purchasing, direct purchasing, and other innovative solutions for enhancing climate finance.

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