



Tara Climate Foundation

# Annual Report 2023



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Note:

All dollar values are in US currency, rounded to the nearest dollar, unless otherwise indicated.

# Letter from our Chief Executive Officer



As I reflect on Tara's journey over the past three years, I am reminded of a quote by Henry Spencer: "Progress requires setbacks; the only sure way to avoid failure is not to try." Despite facing formidable political headwinds, our ecosystem has continued to drive climate victories across the region.

In 2023, we saw encouraging progress at global, national, and local levels. COP28's campaign to triple renewable energy (RE) and double energy efficiency created an opportunity to increase ambition and momentum. Governments in six Tara geographies – Bangladesh, Japan, Malaysia, Singapore, South Korea, and Thailand – joined the pledge to triple RE. The Philippines also made an ambitious shift by increasing its target for RE's share in power generation to 50% by 2040, a decade earlier than planned.

I am captivated by the shift from macro to micro battles when it comes to removing barriers to clean energy acceleration. In South Korea, siting regulations were eased, or pledged to be eased, across 17 municipalities. A framework to streamline offshore wind permitting processes was released in the Philippines, and rooftop solar was mandated for all new housing in South Korea and Taiwan.

We always believed that for a lasting energy transition, our focus on RE must move from national targets to the local level. It's immensely gratifying to witness this shift unfolding.

Looking ahead, the next decade will be pivotal. Our goals include charting the course for a 2030 emissions peak in our region, ensuring coal phase-out happens in time to meet 1.5°C targets, and achieving net zero decarbonisation by 2050 for the entire region. These aspirations are bold, prompting us to work with our network of partners to realise this region's potential for a clean energy future.

Here at Tara, we put people and justice at the heart of a successful energy transition. A just transition requires that RE is developed with community consultation, with strong social and environmental safeguards, and that impacted workers and families are supported to find new livelihoods.

I invite you to explore our 2023 Annual Report and witness the remarkable examples of how our partners are delivering action and ambition on the ground, prioritising people, and paving the way for enduring change.

It is your shared commitment to Tara Climate Foundation's mission that has truly fuelled our progress. To our funders, partners, and Tara team members — your support, dedication, and collaboration have been instrumental in driving positive change in Asia's climate landscape.

With heartfelt appreciation,

A handwritten signature in grey ink that reads "J/COO". The signature is stylized and fluid.

JAMIE CHOI

CEO, TARA CLIMATE FOUNDATION

# Who We Are

Tara is a regionally-led and regionally-based climate foundation working across East, Southeast, and South Asia, excluding India and China. This region has a population of more than 1.2 billion people (16% of the global population) and is home to some of the most climate-vulnerable places in the world.



Taiwan

# What We Do

Our mission is clear: We support a diverse group of partners in accelerating Asia's clean energy transformation and championing climate action. Through strategic grantmaking, we aim to foster an enabling environment for rapid and just RE expansion, thereby bolstering energy security and fostering economic development across the region.

## OUR VALUES

**We go big or we go home.** We know our mission requires courage and ambition. We constantly stretch our comfort zones while holding ourselves accountable to high standards.

**We find joy in collaboration.** Accelerating climate action can only be achieved when more of us work together. We revel in building highly collaborative relationships amongst our team, our partners, and the greater climate movement.

**We celebrate the diversity of our region.** We take pride in empowering and amplifying the multitude of voices from across the region to achieve Asia's energy transformation and champion climate action.

**We are nimble and resilient.** We anticipate and act on signals of change, moving quickly and strategically to adapt to the complexities of our work. When we confront challenges, we dust ourselves off and keep going.

**We live the change we seek in the world.** We bring doses of integrity, honesty, and humility to everything we do. We find time to smile.

## OUR ROLES

### Strategic Grantmaker

Tara works with funding partners to align resources and regrant funds to other organisations.

### Convener

Tara convenes, connects, and supports collaborations to drive the transition to clean energy. We drive meaningful debate, introduce innovative concepts, and promote collaboration among diverse stakeholders.

### Local and Regional Experts

Tara is led by local leaders and experts with a deep understanding of the region's complexity. Tara systematically gathers data and shares information and analyses on a timely basis.

# Data Highlights the Need for Strong Climate Action in Asia

East Asia, Southeast Asia, and South Asia (excluding China and India) are home to 1.2 billion people, representing 16% of the global population. If these regions were a single country, it would rank the third largest emitter of greenhouse gases (GHG), behind only China and the United States.

Home to some of the fastest growing economies in the world, many middle and lower income geographies in Asia are poised to see significant increases in their GHG emissions in the next 30 years unless they transform their energy systems.

Economy-wide transformation hinges on decarbonising the electricity sector, which is central to reducing emissions across transport, buildings, and industry, and will require electrifying nearly all energy uses. The International Energy Agency (IEA) has stated that OECD member countries need to have zero carbon electricity systems by 2035, and the rest of the world by 2040. The IEA further shows that wind and solar are the cheapest and most abundant forms of generating new electricity.

Despite some progress, data reveals that the region is lagging behind the rest of the world in both RE generation and investments in the energy transition. (See Figure 1)

## → Slow growth in solar and wind generation:

Since 2020, the share of solar and wind in total electricity generation in the Tara region has almost doubled, reaching 4% in 2023. Vietnam and Japan have led this growth, achieving more than 10% of RE in their total electricity generation. However, this growth lags behind the US and China, where solar and wind now make up more than 15% of total electricity generation.

## → Stalled investments in the energy transition:

Since 2020, energy transition investments in the Tara region have plateaued at around \$87 billion per year, representing only 5% of the global energy transition investments. In contrast, the US has seen energy investments rise to \$300 billion, while China's investment has more than doubled in past three years, now reaching \$680 billion.

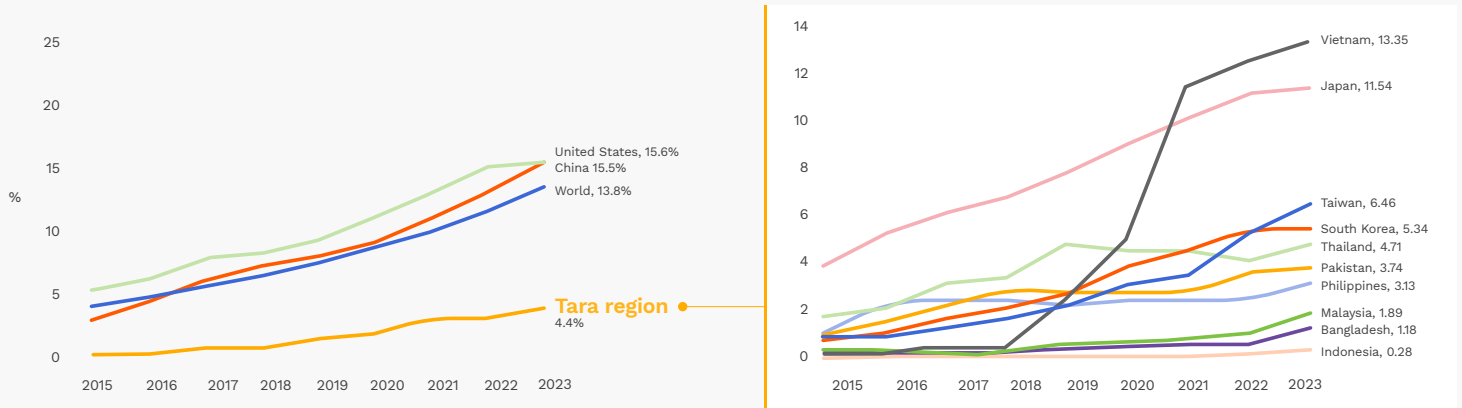
## → Insufficient investments across all sectors:

Globally, the primary sectors for energy transition investments are RE, electrified transport, and power grids. The Tara region aligns with this trend but continues to lag across all sectors. Notably, the US and China have started to invest in energy storage, a critical component for the transition, but such investments are negligible in the Tara region.

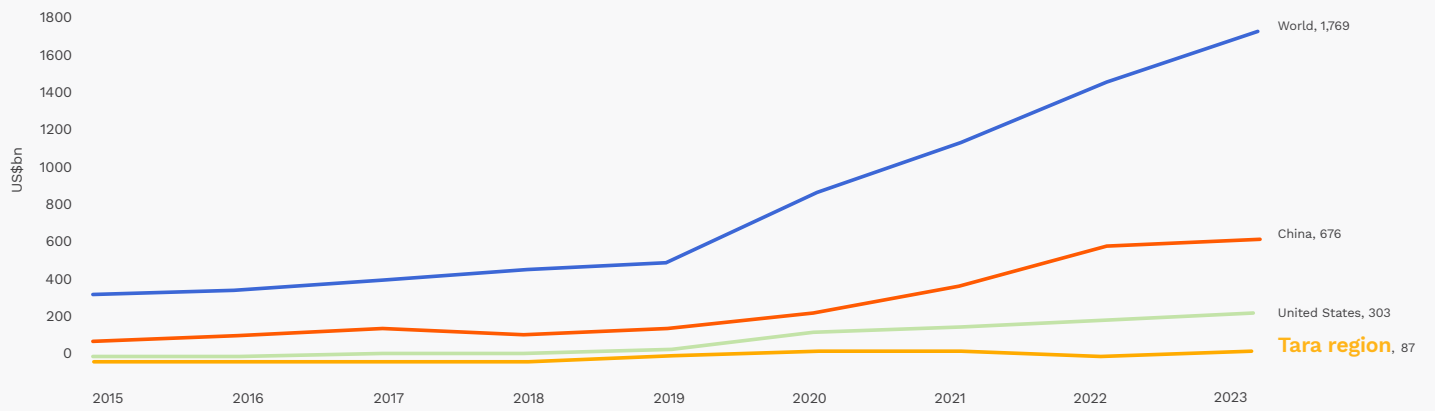
These trends underscore the urgent need for more ambitious national targets and policies that foster an enabling environment for accelerated deployment and investment. Overcoming policy, economic, technical, and financial barriers is essential for the region to advance a just energy transition, and this is the challenge that Tara has been established to address.

**FIGURE 1: SHARE OF RE GENERATION AND ENERGY TRANSITION INVESTMENTS: US, CHINA, AND TARA REGION**

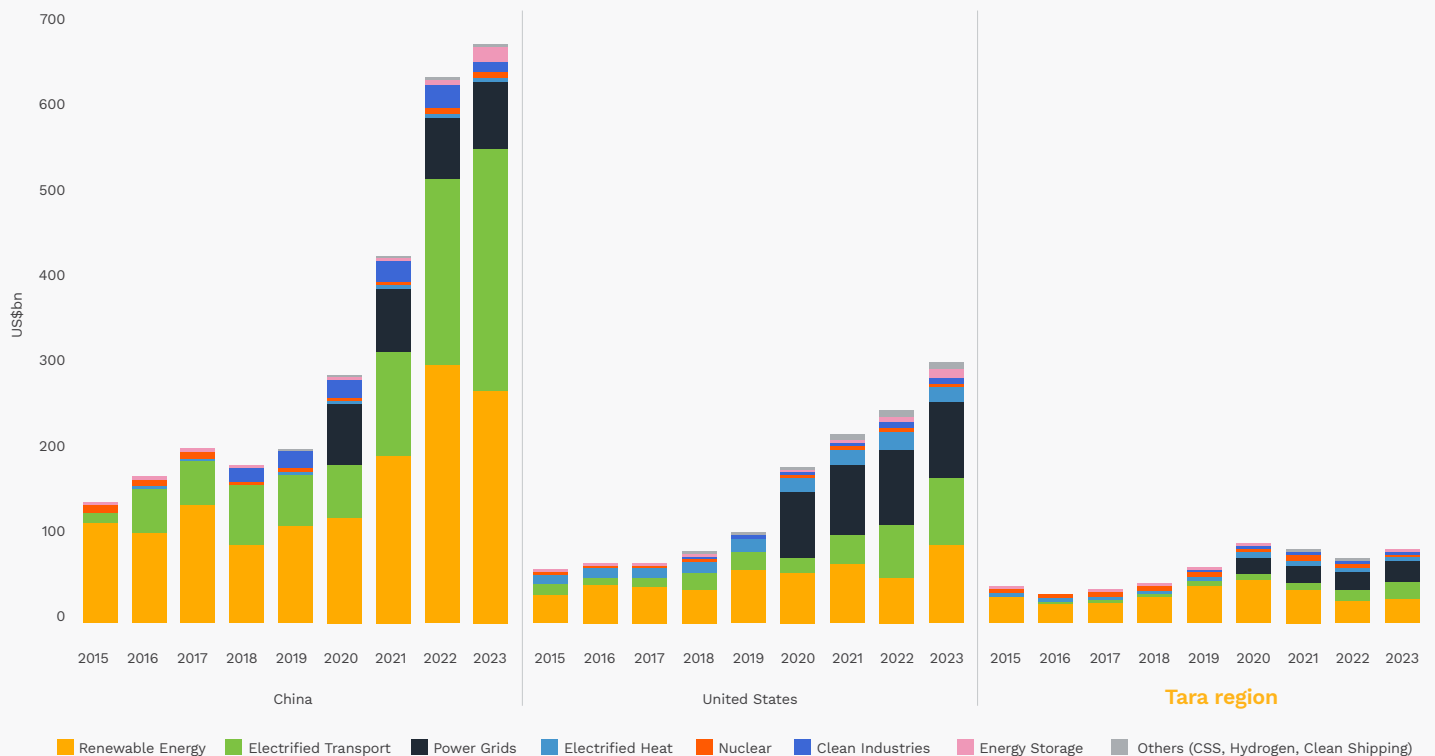
**Share of Solar and Wind in Total Electricity Generation, 2015 - 2023**



**Energy Transition Investments Overall, 2015 - 2023**



**Energy Transition Investments by Sector, 2015 - 2023**



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Note: Tara region data includes the following geographies: Bangladesh, Cambodia, Indonesia, Japan, Laos, Malaysia, Pakistan, The Philippines, Singapore, South Korea, Taiwan, Thailand, and Vietnam.

Source: Ember, Annual Electricity Data - Generation (2023); BloombergNEF, Energy Transition Investment Trends dataset (2023). Data extracted and visualised by Tara.

# 2023 in Review

In 2023, we advanced work across several strategic programs, including clean energy acceleration, just energy transition, and energy finance, working with our partners to find solutions to the just energy transition challenges in Asia.

- **As a strategic grantmaker**, we made grants totalling \$51 million to 259 diverse organisations across 13 geographies, with an average grant size of \$145,000. In a region historically underrepresented in climate action, we played a crucial role in helping strengthen the climate ecosystem.
- **As a convener**, we facilitated over 30 dynamic spaces for collaboration, discussion, and idea-sharing across the region, while also engaging global experts to co-create actionable strategies. These convenings took various forms, addressing issues ranging from offshore wind development to people-centred energy transition, and the recruitment of talent in the climate sector. Through these efforts, we nurtured partnerships critical for driving collective climate action at scale.
- **As a local and regional expert**, we deepened our presence in the region, growing our team to 40 members from 16 nationalities, with 90% of the team hailing from the region. This local expertise further strengthened our networks and insights into the region's political economy, enabling us to systematically gather and share key data, information, and analysis with our partners and wider ecosystem.



# Tara's Clean Energy Acceleration Program



Kamisu City, Japan

In 2023, Tara broadened the diversity of organisations we supported and increased grantmaking under our Clean Energy Acceleration Program. We provided grants to organisations at global, regional, national, and local levels to conduct research, gather data, provide policy recommendations, and facilitate multi-stakeholder dialogues. Additionally, we contributed to the strengthening of the civil society ecosystem in the energy and climate sectors by supporting technical training, capacity building programs, and organisational development for our partners.

The region made progress increasing ambition for, and removing policy barriers to, RE deployment. The pledge made at COP28 by many governments to triple renewables provided a significant boost to climate action efforts across Asia.

Tara commissioned a report by EY to analyse the barriers to clean energy financing with a focus on utility-scale solar and wind energy projects in the region. The report highlighted that policy barriers, rather than financial constraints, were the primary obstacles to accelerating clean energy. As such, a significant portion of Tara's Clean Energy Acceleration Program portfolio focused on creating an enabling policy and regulatory environment.

Our partners worked to address non-financial barriers such as permitting challenges, difficult project development processes, land acquisition issues, and lack of local supply chains—all which are factors that affect project risks, timelines, costs, and overall bankability.

**KEY PROGRESS:**

# Achieving 2030 Renewable Energy Targets

One of Tara’s key goals has been to support governments in the region to achieve more ambitious 2030 RE targets of between 30% and 50%. To achieve this goal, we provided grants to organisations working at global, regional, and local levels in the areas of research, technical analysis, data gathering, and policy engagement. We also supported multi-stakeholder dialogues to instil confidence in RE among policymakers.

Data show that we are continuing to see increases in overall RE ambition across Tara geographies, which will send positive signals to developers and investors.

Notable updates include the following:

- In **the Philippines**, the new Philippine Energy Plan (PEP) 2023-2050 includes a 50% RE share in power generation by 2040, a decade earlier than previously planned.
- **Vietnam’s** new Power Development Plan (PDP-8) projects that solar and wind will constitute 27% of its power mix by 2030, and 62.8% in 2050.
- **Japan** reaffirmed its commitment to clean energy at the G7 Summit by signing up to a G7 pledge to collectively increase offshore wind capacity by 150 GW and solar to more than 1 TW by 2030. This announcement marks the first time specific targets for solar and offshore wind power were included in the official communique.



## KEY PROGRESS:

# Addressing Policy Barriers to Renewables Acceleration

RE auctions are a bidding process whereby governments solicit proposals from developers to supply RE or build RE projects, helping them to procure clean energy at competitive prices. Our partners have provided technical input on auction design and pricing mechanisms; they also evaluated options to support the streamlining and efficiency of the process.

In 2023, auctions were held in many geographies, but some faced design and pricing challenges that discouraged bids. Our partners aim to learn from successes and obstacles over the last year to further support RE auctions as a vital tool to drive RE acceleration.

- **Japan** and **South Korea** successfully conducted competitive wind bidding processes, auctioning 3.4 GW of wind projects, predominantly offshore.
- In **the Philippines**, the Department of Energy tried to auction 11.6 GW of RE capacity under the second round of its Green Energy Auction Program. Only 3.6 GW was contracted, likely due to a low initial price ceiling set by the government.
- In **Pakistan**, an auction for the 600 MW Muzaffargarh Solar Power Plant failed to receive a single bid. The large size of the project, low benchmark tariff, and delays in payments for existing RE projects are viewed by foreign developers and investors as too risky.
- In **Thailand**, the government approved another Feed-in Tariff (FiT) program in March 2023 to add 3.7 GW of RE by 2030, increasing the country's projected RE capacity on the grid to 8.9 GW by 2030 (primarily solar and wind). In April, the Energy Regulatory Commission awarded 4.9 GW of new RE licenses under the FiT program.

At sub-national levels, our partners worked with provincial and municipal governments to support their efforts to accelerate RE deployment. Sub-national governments are uniquely positioned to drive localised action and can more effectively tailor solutions to meet the specific needs of their communities.

Some key 2023 developments include the following:

- In **Karachi, Pakistan's** primary electricity provider, K-Electric, announced its intention to add 640 MW of RE capacity to the local grid. This announcement is part of the utility's vision to achieve a 30% share of RE in its power mix by 2030. Discussions commenced with civil society partners to support a transparent and compliant bidding process with auction regulations.
- **Gyeonggi Province, South Korea's** most populous province, launched the Gyeonggi RE100 Vision plan to expand RE facilities to 9 GW by 2026. Twelve municipalities in Gyeonggi-do removed regulations that restricted locations for solar installations. By increasing the areas available for solar, Gyeonggi-do removed a key barrier to solar acceleration.
- **Mindanao Island in the Philippines** set a target of 50% RE in its energy mix by 2030, higher than the national target of 35% by 2030.
- **Sabah, Malaysia** passed the Sabah Energy Roadmap and Master Plan 2040, which commits the state to a RE transition and 100% electrification by 2030. The plan also includes mini-grids, community-owned systems, and distributed RE systems.

## PARTNER HIGHLIGHTS



**The Institute for Essential Services Reform (IESR)** is a think tank focused on energy and climate change, aiming to accelerate Indonesia's energy transition toward decarbonisation in line with the Paris Agreement. IESR conducts data-driven studies to advocate for policy reform and strengthen the energy transition ecosystem in Indonesia and Southeast Asia.

**Nationally**, IESR works with the Ministry of Energy and Mineral Resources (ESDM) on coal phase-out plans and contributes to the Just Energy Transition Partnership (JETP) Technical Working Group for a 44% RE mix by 2030. It supports regulatory reform measures, partners with government bodies, and advises the Net Zero World initiative. Furthermore, IESR assists the Directorate of Electricity, Telecommunications, and Informatics (KTI) under the Ministry of National Development Planning (Bappenas), in planning RE targets.

**At the sub-national level**, IESR promotes energy transition initiatives in various regions. In Central Java, it prepared low-carbon transportation plans for the Long Term Regional Development Plan 2025-2045. In Bali, it is working with the government to implement its Net Zero emissions by 2045 policy. In Jambi, it developed technical guidelines for a kitchen and household lighting program, supporting poverty alleviation efforts. In South Sumatra and East Kalimantan, IESR collaborates with coal-producing regions on economic transformation and education about the impacts of the energy transition.



**Climate Smart Ventures Pte Ltd (CSV)**, a for-profit transition and transaction advisory firm, partnered with **Preferred Energy Inc. (PEI)**, a non-profit organisation focused on advancing RE and clean development projects in the Philippines. Together, they collaborated on seminars, presentations, and policy recommendations for the National Power Corporation (NAPOCOR) on hybridisation, which involves combining RE with diesel power for electric cooperatives. Additionally, CSV signed an MOU with the National Electrification Administration, which oversees cooperatives, to provide them with technical assistance on hybridisation.

Their efforts contributed to NAPOCOR's 2023 announcement promoting hybridisation for small island utilities, and NAPOCOR is now raising investments to implement these systems. Hybridisation is expected to decrease the use of expensive diesel for power generation, encourage early adoption of RE generation, and move towards uninterrupted power services in remote areas not connected to the main grid.

KEY PROGRESS:

# Accelerating Solar Deployment

Our partners worked with sub-national governments to support their efforts to accelerate uptake of rooftop solar, which has immense potential to foster energy independence, reduce costs, deliver environmental benefits, and create jobs for communities.

After years of consistent efforts, several geographies mandated solar installations on specific types of new buildings in 2023, providing a pathway to rapidly scale up rooftop solar adoption.

- **South Korea** mandated the installation of rooftop solar in new housing sites. In addition, Distributed Energy Specialised Areas will be designated where smaller-scale electricity suppliers and local

electricity consumers can make direct power purchase agreements (PPAs) with fewer regulations and interventions from KEPCO, South Korea's electric utility.

- **Taiwan** mandated the installation of rooftop solar on newly built, expanded, or altered buildings.
- In **Japan**, Kawasaki City introduced mandatory installation of solar on new buildings starting in 2025. Kyoto City, Yokohama City, and Gunma City are also introducing this regulation for larger buildings.
- In **Bangladesh**, the Power Division broadened the scope of net metering guidelines, enabling a broader range of buildings to be eligible for rooftop solar and stipulating minimum volumes of solar on rooftops of certain sizes if they want to connect to the grid.

PARTNER HIGHLIGHT



**NEXT Group** is an independent energy and climate policy think tank in South Korea dedicated to developing ground-breaking quantitative research and analysis to accelerate Asia's net-zero energy transition.

In 2023, NEXT Group published a groundbreaking analysis on rooftop solar potential for residential and industrial complexes. Their research revealed that South Korea has a rooftop photovoltaic capacity of 42.2 GW, which could generate more than 8% of the country's 2030 electricity demand, as outlined in the 10th Basic Plan for Electricity Supply and Demand. The results of this research aligns with government efforts to promote rooftop solar through subsidies and loan support, significantly shortening the payback period for solar installations.

NEXT Group's analysis also highlighted several challenges that hinder the widespread adoption of rooftop solar, such as neighbourhood acceptability and difficulties securing initial financing. These findings underscore the need for more detailed policy design and proactive measures to overcome these barriers and accelerate solar deployment in South Korea.

## KEY PROGRESS:

# Accelerating Offshore Wind Deployment

Offshore wind development across the region has the potential to exponentially increase RE deployment in the region in the coming decades. From manufacturing turbines and equipment, to installation and operation, offshore wind is increasingly recognised for its potential as a powerful economic driver and a major source of green jobs. In addition, offshore wind has the potential to facilitate the production of green hydrogen, contributing to the decarbonisation of energy-intensive sectors.

In 2023, Tara partners were active in accelerating offshore wind development in the region, particularly through marine spatial mapping, supply chain analysis, and multi-stakeholder dialogues. 2023 data indicates that significant strides have been made in the offshore wind sector, although some policy and market uncertainties remain.

- **Japan** announced results for its second round of offshore wind tenders, awarding 1.8 GW of fixed-bottom offshore wind farms. Farms are expected to begin operations before mid-2029.
- **South Korea** held wind auctions and successfully issued tenders for 1.4 GW of offshore wind and 152 MW of onshore wind. These auctions addressed some shortcomings from previous auctions, such as the removal of local content requirements which discourage foreign investments.
- **Taiwan** operationalised almost 1.3 GW of wind projects in 2023, including a 376 MW offshore wind farm in Miaoli County, bringing total offshore wind capacity to 2.25 GW. Despite this progress, the market faced several uncertainties that led some developers to exit the Taiwanese offshore wind market altogether. No auctions took place in 2023 due to delays in negotiating contracts with the winners of 2022's auction round. These delays cast doubt on whether Taiwan will be able to meet its target of 13.1 GW of offshore wind by 2030.
- **Vietnam** increased its offshore wind targets to 6 GW by 2030, with a goal of exporting offshore wind to other Southeast Asian markets.
- **Bangladesh's** first 60 MW onshore wind farm commenced partial operation and is supplying the grid. In 2023, the government granted approval in principle for a feasibility study on the development of a 500 MW offshore wind farm. This project aims to address land constraints that hinder RE deployment.

## PARTNER HIGHLIGHT



**The Institute for Global Environmental Strategies (IGES)** is an independent think tank and policy research institute focused on sustainable development established under an initiative of the Japanese government and with the support of Kanagawa Prefecture. IGES collaborates with governments, international organisations, research institutes, businesses, and local communities to create innovative policy solutions. In 2023, IGES published the technical report ‘1.5°C Roadmap: An Action Plan for Japan’, which explored the feasibility of achieving rapid and significant reductions in Japan’s GHG emissions.

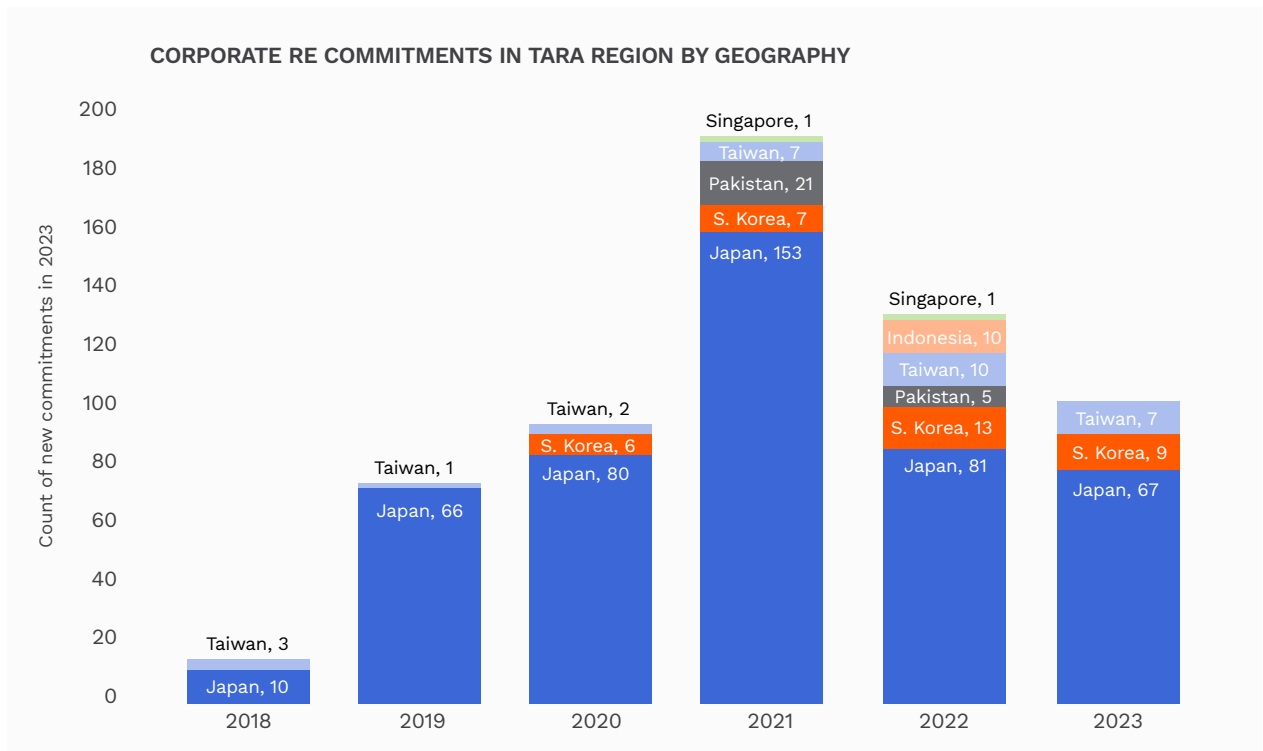
As part of this report, IGES developed multiple scenarios with varying assumptions about the introduction of mitigation technologies and socioeconomic changes. These scenarios were iteratively updated with input from business stakeholders to ensure the feasibility of the roadmap. The key findings emphasised the importance of early expansion of RE, particularly rooftop solar, agrivoltaics, and offshore wind, alongside improvements in the electric power system and demand-side efforts. If the roadmap is achieved, these measures could lead to nearly 90% energy self-sufficiency by 2050. Additionally, the report estimated that with proper investment in facilities to manage RE intermittency, electricity prices could keep roughly the same as the current levels, with investment requirements that are much lower than Japan’s current annual fossil fuel import costs.



**KEY PROGRESS:**

# Increasing Corporate Demand and Procurement for RE

Corporations are pivotal in driving RE demand through their commitments to sourcing clean power, investments in RE projects, and ability to advocate for enabling policies. In 2023, 83 companies across the region made new commitments to procure 100% RE, with 36 companies setting a target by 2030.



Sources: RE100, RE Action Japan, Pakistan Environment Trust Net Zero Initiative, WRI Indonesia. Data visualised by Tara.

Tara supports partners to drive increased corporate demand for RE. In 2023, we provided grants to corporate RE alliances across the region to conduct capacity building with their members, engage in research, and converge around climate action. Data indicates notable progress in this area, reflecting the growing commitment of businesses to energy transition in the region.

- In **Bangladesh**, a new Climate Action Forum and Sustainable Apparel Forum convened representatives from the ready-made garments sector, civil society, government, and brands. Together, these groups will work for decarbonisation and just transitions in the ready-made garments sector. At least 50 members have committed to increase the use of RE.
- In **Indonesia**, corporate voluntary action grew to 70 companies who are now registered with the Chamber of Commerce’s Kadin Net Zero Hub. The Hub provides tools to companies to set climate targets.
- In **Pakistan**, seven companies are on track to submit science-based targets for RE and 26 committed to net zero, but getting more companies to commit has been challenging.

- In **South Korea**, nine companies joined RE100, increasing the number of Korean members from 27 to 36. RE100 now includes four of the country's largest corporations who collectively consume 8% of Korea's electricity. The collective voices of companies influenced the government to decrease the price of solar power from direct PPAs.
- In **Taiwan**, Taiwan Semiconductor Manufacturing Company (TSMC) announced a target to achieve 100% RE by 2040. It also increased its 2030 target for company-wide RE consumption from 40% to 60%. TSMC manufactures most of the world's semiconductor chips and is Taiwan's largest electricity consumer.

## PARTNER HIGHLIGHT



**Oxfam in Bangladesh** is a humanitarian and rights-based organisation fighting poverty and inequality. Recognising the fashion industry's significant energy consumption, Oxfam is working with the industry to advance a just transition towards RE.

Oxfam has facilitated platforms for multi-stakeholder dialogues, including the national Climate Action Forum and Sustainable Apparel Forum. These groups convene representatives from the ready-made garment sector, development partners, civil society organisations, government, and brands to advocate for policies that support a circular economy and a just transition in the industry.

In 2023, successful partnerships were forged with the Bangladesh Garment Manufacturers and Exporters Association (BGMEA) on ethical pricing and just transition. Oxfam's influence has resulted in 50 factories making a commitment to transition to between 5-8% RE. Oxfam will work to strengthen these commitments in future years.

## KEY PROGRESS:

# Making Grids Ready for Renewable Energy

A modernised, optimised, and flexible grid can help turbocharge RE deployment. Yet across our region, challenges with grid planning and connections to RE projects present barriers to RE acceleration. The timescales to plan and build transmission grids are significantly longer than for RE projects, so acting now will prevent grid issues from being a barrier to rapid wind and solar deployment in the future. Addressing these challenges is still a new area of work for Tara and our ecosystem.

To help build the capacity of our partners and ecosystem, Tara organised trainings on the importance of grids for RE acceleration and developed a framework to ensure grants to partners address the role of grids as

either a barrier to or enabler of accelerated RE deployment. This work will be further strengthened and mainstreamed across Tara geographies in the coming years. We are already seeing a few exciting developments.

- In **Pakistan**, the Ministry of Energy published its first National Electricity Plan (NE-Plan) 2023-2027 which aims to overhaul the power sector value chain, including a strong focus on transmission and distribution.
- In **the Philippines**, the Department of Energy established a plan to connect OSW areas that are not included in the current transmission development plan.

## PARTNER HIGHLIGHT



At the Lahore University of Management Sciences (LUMS), Pakistan's leading research university, the **LUMS Energy Institute (LEI)** serves as a think tank, centre of technical excellence, knowledge network, and capacity building platform dedicated to institutionalising a renewable-rich future for Pakistan in the most sustainable and cost-effective way possible.

In 2023, LEI was one of the official stakeholders consulted by the government to provide recommendations on integrated system planning. This included areas such as demand forecasting, generation capacity expansion planning, and transmission system expansion planning, along with contributions to the Energy Conservation Building Code and various other energy-related research and development initiatives.

Additionally, LEI supported the National Grid Company in developing the revised Grid Code 2023, which will significantly improve grid connection process and will facilitate the incorporation of increased RE generation into Pakistan's power system.

# Tara's Just Energy Transition Program



Likupang, Indonesia

In 2023, Tara continued its work with partners to identify strategies to minimise the negative impacts and maximise the opportunities of the energy transition—especially for affected and marginalised and the most impacted communities. Tara provided grants to civil society organisations to ensure that RE is implemented responsibly, including the incorporation of safeguards for workers and communities and responsible mining practices for critical minerals used in RE technologies.

A just energy transition is the deliberate shift from fossil fuels to clean, renewable energy, with a primary focus on equity and minimising negative consequences for people, workers, and at-risk communities. A just transition in the Asia region requires consideration of the following:

- **Livelihoods:** Climate action most directly impacts jobs in fossil fuel extraction, as well as in the industrial and power sectors. Yet the transition presents numerous opportunities for green jobs across various industries and sectors, offering pathways that can support sustainable economic growth and improve health and livelihoods.
- **Health:** Fossil fuels are the major driver of air pollution across Tara’s focus geographies—especially in Pakistan, Indonesia, Bangladesh, and Vietnam. There are substantial health benefits of transitioning to clean and renewable energy in the power, industrial, and transport sectors, especially for urban citizens.
- **Environmental and Social Governance (ESG):** Ensuring RE projects and mining for critical minerals adhere to strict ESG standards can foster a transition that is just and fair.

In 2023, Tara’s just transition work focused on ensuring good ESG standards in the critical minerals and RE industries. Tara’s partners embarked on this work by:

1. Supporting affected communities (e.g., fisherfolk, farmers) to engage in decision-making processes around RE and critical minerals projects;
2. Engaging RE companies to adopt ESG-aligned policies and practices, including by supporting multi-stakeholder dialogues with governments and financial investors; and
3. Convening a diverse ecosystem of actors who are promoting a just energy transition and working alongside Tara partners, including non-climate stakeholder groups and coalition.

Additionally, Tara helped partners engage in managed coal phase-out processes to ensure that a just transition for workers and communities was a vital consideration in any early coal retirement transaction.

## KEY PROGRESS:

# Research and Dialogues to Promote a Just Energy Transition

Indonesia is the world's largest nickel producer, accounting for around 30% of the global supply. Nickel a key component in manufacturing batteries and other essential RE technologies. Tara is assisting partners in Maluku and Sulawesi to evaluate the environmental and social impacts of nickel mining and smelting in Indonesia and work with the nickel industry to develop responsible mining policies and practices. These efforts include developing a consensus on no-go areas to protect vulnerable ecosystems and communities from the adverse effects of mining, as well as evaluating the potential for RE to power energy intensive nickel smelters.

To ensure that communities benefit from RE projects, Tara is supporting partners in

creating community participatory models and resolving local conflicts related to RE initiatives. This support includes developing best practices for solar installations with active local community participation and implementing conflict resolution programs that address concerns over offshore wind and biodiversity.

An emerging area of focus is the intersection of RE and agriculture. By integrating RE with agriculture, agrivoltaics can offer dual benefits for farmers—supporting both food production and clean energy generation—while promoting rural development and energy independence. In 2023, there was notable progress in South Korea, where the Ministry of Agriculture, Food, and Rural Affairs introduced policies to enhance the availability of agrivoltaics systems.

## KEY PROGRESS:

# Managed Phase-out of Coal Power Plants

The challenge of phasing out coal is especially acute in the Tara region, where energy demand is projected to increase significantly by 2050 and the average age of coal plants is less than 13 years. This challenge requires a holistic approach to ensure a careful balance between promoting environmental sustainability, energy security, and a just transition.

In 2023, Tara helped partners create modelling scenarios for coal phase-out and develop innovative financial mechanism models. This assistance was provided to partners supporting governments and financiers to create effective worker compensation and benefit models for early coal phase-out.

The following summary highlights 2023 progress across key geographies in the region:

- In **South Korea**, the government has committed to reduce coal generation to 19.7% of the power mix by 2030—much lower compared to 29.9% in the previous plan. Additionally, the newly elected Governor of Chungnam Province reaffirmed support for coal phase-out and called on the central government to develop a just transition fund for early coal retirement. The Governor's support is significant because Chungnam has the highest GHG emissions among all provinces in Korea, with half of all coal plants located there.
- In **Indonesia**, the Just Energy Transition Partnership (JETP) progressed from political declarations of intent to detailed investment and policy plans. Tara partners served as official members in three of the four JETP working groups and provided critical analysis and technical expertise, including developing and proposing principles that should be integrated into any JETP-funded project. Indonesia launched its Comprehensive Investment and Policy Plan (CIPP) in November 2023 which includes two coal plants for early retirement: the Cirebon 1 coal plant in West Java and the Pelabuhan Ratu coal plant in Sumatra, a total of 1.7 GW. While there is still much to be done to align with climate targets, these developments lay a strong foundation for a sustainable energy future in Indonesia.
- In **the Philippines**, the government announced two pilot projects for early coal retirement, one under the ADB's Energy Transition Mechanism and the other being ACEN Corporation's South Luzon Thermal Project. A deal potentially utilising carbon credits under a new scheme, the Transition Credits Coalition (TRACTION), could accelerate the ACEN plant's retirement by 10 years to 2030.



**The Glasgow Financial Alliance for Net Zero (GFANZ)** is a global coalition of financial sector net-zero alliances working together to support the world's transition to net-zero emissions by 2050. In 2023, the GFANZ APAC Network developed a principles-based set of recommendations, [Financing the Managed Phaseout of Coal-Fired Power Plants in Asia Pacific](#), aimed at supporting financial institutions, coal power operators, and

governments to put in place plans for a just and orderly coal phase-out.

These recommendation offers a multi-step process for net-zero committed financial institutions to consider managed phase-out plans on their credibility, avoidance of moral hazards, and contribution to a just transition. The report aimed to establish an ambitious yet practical foundation to support catalytic and pioneering coal phase-out transactions involving both public and private finance.

KEY PROGRESS:

# Bridging Critical Climate Talent Gaps

A key challenge in the region is a persistent talent gap and lack of a vibrant climate entrepreneurship ecosystem. The International Labour Organisation (ILO) estimates that the energy transition will create up to 24 million green jobs by 2030—many in Asia—and offset 6 million jobs expected to be lost. However, in Asia there is a major gap in skillsets and talent in the energy and climate sectors, with a need for more qualified people across the value chain, such as electricians to install solar panels, finance specialists who understand ESG, and communications professionals who can articulate the benefits of the energy transition. Harnessing the entrepreneurial spirit of Asian talent while upskilling a new generation of climate and energy practitioners is essential to ensure a fast transition to RE. In 2023, Tara took steps to nurture the entrepreneurial ecosystem in the region, particularly for climate tech, which

is underdeveloped compared to global hubs like Silicon Valley and European innovation centres, and where challenges such as access to venture capital, mentorship, and policy support have hampered growth. In 2023, Tara supported the building of a strong pipeline of energy entrepreneurs, leaders, and professionals by funding a variety of business incubators and training programs.

Additionally, Tara started exploring innovative ways to support new and existing talent in climate civil society organisations through fellowship programs, leadership development, and other initiatives focused on skills-building, networking, and community-building. This effort supports a growing movement that sees workforce development and job opportunities as key leverage points for building popular support for climate action.

PARTNER HIGHLIGHT



**New Energy Nexus (NEX)**, is an international non-profit organisation dedicated to empowering clean energy entrepreneurs through tailored business accelerators, networks, and catalytic funding. Over the past seven years, NEX has concentrated its efforts in Southeast Asia, delivering programs in Thailand, Vietnam, the Philippines, and Indonesia. These initiatives aim to build a connected energy tech innovation ecosystem by fostering local partnerships and pioneering new projects.

In 2023, NEX Thailand deepened its collaboration with the National Science and Technology Development Agency (NSTDA), scaling the TechBiz Starter Program to support a growing number of climate tech entrepreneurs. Through this program, over 36 researchers and start-ups in the energy and climate sectors received mentorship and resources, resulting in the development of six energy-focused projects. These projects include prototypes for the Industrial Internet of Things and micro-inverters designed to optimise solar energy.

Additionally, NEX Thailand partnered with PEA Encom, a subsidiary of Thailand's Provincial Electricity Authority (PEA), to establish a solar technology and installation training hub in central Thailand. Known as the SolarSTEP program, its second year marked significant growth, attracting 82 participants, including engineers, electricians and aspiring solar entrepreneurs from across the country.



# Tara's Energy Finance Program



Khao Kho, Thailand

In 2023, Tara supported independent think tanks and institutes who provided governments and financial institutions with technical assistance on financial mechanisms and policy guidance for a just energy transition. Engagement with the finance sector is focused on building the tools and knowledge to adopt net zero aligned transition pathways; with governments, we are helping them develop an enabling policy and regulatory environment that will unlock future investments.

A Tara-supported [EY study](#) found that policy and regulatory barriers were the key obstacles to accelerating clean energy, not insufficient finance. Nevertheless, we still need financial institutions to provide de-risking mechanisms to lower the cost of finance and provide concessional finance for harder to finance areas such as grids and storage. Development Finance Institutions (DFIs) have a particularly key role to play in geographies such as Pakistan and Bangladesh, which face overall currency liquidity and macroeconomic instability challenges.

These findings helped shape Tara's strategy to support and enhance both the quality and quantity of finance for clean acceleration in the region. The regional ecosystem of civil society organisations working on energy finance is slowly building, but more is needed for the ongoing development of capacity and expertise. Tara supports finance fellowships and capacity building for regional and national organisations working on energy finance.

## KEY PROGRESS:

# Strengthening Financial Regulation to Accelerate Climate Action

Central banks and financial supervisors could play an essential role in guaranteeing the right financing conditions for the energy transition. Several central banks and supervisors in the region have already started to recognise the overall systemic risks from climate change and align their policies and activities accordingly.

In 2023, Tara broadened its support efforts for partners seeking to engage with central banks, helping them facilitate high-level discussions

at the ASEAN level and in Japan, Malaysia, Singapore, and South Korea.

In March 2023, the Taxonomy for Sustainable Finance Version 2 was launched by the ASEAN Taxonomy Board (ATB). The release followed extensive stakeholder consultations on Version 1. The ASEAN taxonomy is the first globally to include coal phase-out sustainability criteria. A crucial addition to Version 2 is the inclusion of social aspects as the third essential criteria, adding a holistic dimension to the taxonomy principles.



**Sustainable Finance Institute Asia (SFIA)** is an independent institute focused on advancing sustainable finance policy and action. Since 2021, SFIA has played a key role in coordinating and delivering the ASEAN Taxonomy for Sustainable Finance, designed to direct capital towards sustainable activities across ASEAN member states. As host of the ASEAN Taxonomy Board, SFIA provides leadership, policy advice, technical expertise, and stakeholder management support. Version 2, published in March 2023, builds on Version 1, introducing a completed Foundation Framework, Energy and Coal Phase-out criteria (a global first for a regional taxonomy), and social aspects as an Essential Criteria in both the Foundation Framework and Plus Standard.

SFIA facilitated stakeholder consultations for Version 2, which received positive feedback from governments and international organisations. It also secured ministerial endorsements from Singapore and Indonesia and was recognised as one of the most influential taxonomies globally, cited in Natixis' The New Geography of Taxonomies and accepted by the Abu Dhabi Global Market's FSRA. SFIA and the Board will continue capacity-building efforts to promote the Taxonomy and advance sustainable finance.

SFIA also supports the Sustainable Finance Working Group of the ASEAN Capital Markets Forum and the ASEAN Working Committee on Capital Market Development. Leveraging its resources and network, SFIA helped the Forum develop the Transition Finance Guidance, which offers regionally relevant advice on transition finance for Southeast Asia's 70 million SMEs. The Guidance was cited in the International Capital Markets Association's Transition Finance in the Debt Capital Market and was recognized in the 2024 Asia Transition Finance Study Group Annual Report as a key tool for ASEAN companies.

The ASEAN Taxonomy and Guidance are living documents and will be enhanced over time to reflect technological, economic, and social developments. They are intended to work hand-in-hand to strengthen two of the three pillars of the ASEAN sustainable finance ecosystem – Taxonomy, Transition Finance Frameworks, and Disclosures.

## KEY PROGRESS:

# Driving Public Finance to Renewable Energy

In 2023, Tara supported partners to engage International Financial Institutions (IFIs) to encourage them to adopt policies and deploy financing aligned with a 1.5°C trajectory, particularly in mobilising IFI support for strategic investments in RE.

Significant barriers exist in accessing finance for early-stage project development, particularly in challenging areas such as grid infrastructure and energy storage. Public finance plays a critical role, especially in middle- and lower-income regions; however, even wealthier nations require early-stage investment funds to support these initiatives.

In lower income geographies, public finance should support harder-to-finance areas such as grids and storage through concessional finance and grants, as well providing de-risking support. Additionally, market-based

mechanisms for financing grid infrastructure are needed to accelerate the clean energy transition. In middle income and wealthier geographies, early stage financing vehicles like the South East Asian Clean Energy Facility (SEACEF) are needed to mitigate the high risks and costs during the project development phase and to build a larger pipeline of projects.

Notably, in 2023, IFIs provided policy lending in Bangladesh to promote climate action. Bangladesh became the first recipient of the IMF's Resilience and Sustainability Trust and the EU announced a €400 million investment to support RE development. Following these two exciting commitments, the Bangladesh Climate and Development Platform was launched at COP28 with support from a multitude of multilateral and bilateral donors. This represents a good opportunity to ensure donor coordination.

# Tara's Financial Overview



# Financial Overview

Thanks to the generous support of our philanthropic partners, in 2023, we made grants totalling US\$51 million through 315 contracts to 259 organisations.

This represents a 71% increase in total grantmaking compared to 2022. Notably, we had 89 new partnerships, expanding our ecosystem into new strategic areas, and demonstrating our commitment to growing the climate ecosystem in the region.



## APPENDIX: LIST OF ACRONYMS AND ABBREVIATIONS

<b>A</b>		<b>M</b>	
<b>ADB</b>	Asian Development Bank	<b>MW</b>	Megawatts
<b>ATB</b>	ASEAN Taxonomy Board		
<b>C</b>		<b>N</b>	
<b>CIPP</b>	Comprehensive Investment and Policy Plan	<b>NAPOCOR</b>	National Power Corporation
<b>COP</b>	Conference of the Parties	<b>NSTDA</b>	National Science and Technology Development Agency
<b>CREF</b>	Corporate Renewable Energy Foundation	<b>NEX</b>	New Energy Nexus
<b>D</b>		<b>P</b>	
<b>DFI</b>	Development Finance Institution	<b>PEP</b>	Philippine Energy Plan
		<b>PDP-8</b>	Power Development Plan
		<b>PPAs</b>	Power Purchase Agreements
<b>E</b>		<b>R</b>	
<b>ESG</b>	Environmental and Social Governance	<b>RE</b>	Renewable Energy
		<b>RMG</b>	Ready-made garments
<b>F</b>		<b>S</b>	
<b>FIT</b>	Feed-In-Tariff	<b>SEACEF</b>	South East Asian Clean Energy Facility
<b>G</b>		<b>SFIA</b>	Sustainable Finance Institute of Asia
<b>G7</b>	Group of Seven	<b>T</b>	
<b>GFANZ</b>	Glasgow Financial Alliance for Net Zero	<b>TSMC</b>	Taiwan Semiconductor Manufacturing Company
<b>GHG</b>	Greenhouse Gas	<b>TW</b>	Terawatt
<b>GW</b>	Gigawatts	<b>TRACTION</b>	Transition Credit Coalition
<b>I</b>		<b>U</b>	
<b>IEA</b>	International Energy Agency	<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>IEEFA</b>	Institute for Energy Economics and Financial Analysis		
<b>IFIs</b>	International Financial Institutions		
<b>ILO</b>	International Labour Organisation		
<b>IMF</b>	International Monetary Fund		
<b>J</b>			
<b>JETP</b>	Just Energy Transition Partnership		
<b>L</b>			
<b>LEI</b>	LUMS Energy Institute		

