



Pacific Workshop on Plastic Pollution, Material Substitutes and Enabling Green & Blue Finance

Fiji, Suva, 17-19 October 2023

Event report

Introduction

The Pacific Workshop on Plastic Pollution and Material Substitutes was organized by the United Nations Conference on Trade and Development (UNCTAD), in collaboration with the United Nations Development Programme (UNDP) Pacific Office and the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), with support from the United Kingdom Foreign, Commonwealth and Development Office (UK-FCDO). The workshop happened between 17 and 19 October 2023 at the Grand Pacific Hotel in Suva, Fiji. It was attended by National Trade and Environmental Agencies, businesses linked to natural materials, local academia, and civil society organizations from Fiji, Samoa, Tonga, Vanuatu, Solomon Islands and Nauru. The event was opened by Ms. Sandeep Singh, Environment Director, Fiji Prime Minister's Office. This was followed by opening interventions by [Mr. David Vivas Eugui](#) and Ms. Diana Barrowclough on behalf of UNCTAD, while UNDP was represented by [Mr. Kiye Mwakawago](#), Project Delivery Acceleration & Implementation Support Advisor.

The workshop sought to support regional discussions around [non-plastic material substitutes](#), which have been explicitly included in ongoing multilateral and regional discussions on international plastics material system reform (in particular the [UNEA-mandated INC process](#) and the World Trade Organization (WTO) Dialogue on Plastics Pollution), and ultimately, for a healthy [Oceans Economy](#).

The workshop delivered a careful examination of material substitutes, their recent trade trends, and their enabling conditions to complement measures being contemplated by countries to regulate and control trade in plastics. Material substitutes can at the same time support mitigation and prevention of plastic pollution, whose consequences disproportionately affect Small Island Developing States (SIDS). The event also discussed the role of green and blue finance as part of solutions for achieving United Nations Sustainable Development Goals 14 and 12.

Plastic substitutes and their role in multilateral processes on plastic pollution

Countries in the Pacific region lie at a complex confluence of the problematic related to plastic pollution, and opportunities related to the ocean economy, which makes up the majority of their economic zones. Pacific people are custodians of over 28 million square kilometres of ocean and Pacific Island Countries make up 20% of the world's combined Exclusive Economic Zones (EEZs). The global value of trade flows of [ocean-based goods and services](#) was about USD 1.6 trillion in 2021. Many new and emerging sustainable sectors such as seaweed production, non-plastic substitutes, and carbon absorption services using marine biotechnology are contributing to this market. In contrast, plastic trade was estimated at USD 1.2 trillion globally. Unfortunately, only 10% of plastic waste is recycled and most plastics become waste.

Those dynamics raise important questions. How can production and trade of conventional plastics be limited? How can recycling rates be increased and waste management capabilities further refined? How can recycling and waste management capacities be increased? How can non-plastic material substitutes be used responsibly, to shift the demand towards more natural, biodegradable, compostable, and recyclable materials, that are locally sourced and deliver local employment effects? The workshop discussed these questions with stakeholders. Also discussed were the legal implications of the [Zero Draft Treaty to end plastic pollution on substitutes](#). These points were addressed in a way to stimulate participants to exchange experiences and listen to various national perspectives related to options and opportunities linked to the UN Intergovernmental Negotiating Committee process, as well as the [WTO Dialogue on Plastic Pollution \(DPP\)](#) in understanding of these important issues.

Presentation: [Finance and Industrial Policies for Pollution-Free and Climate-Aligned Development](#)

In this presentation, the focus was on the imperative need for finance and industrial policies that drive pollution-free and climate-aligned development, with particular emphasis on the Pacific Islands and the concept of a Green and [Blue New Deal](#).

The central theme revolved around the Sustainable Development Goals (SDGs), climate adaptation, and climate mitigation, recognized as the most substantial investment endeavor in history. The critical question posed was, what is required in the financial architecture to actualize this vision? The answer provided was a call for sufficient, reliable capital at scale, with a long-term commitment and privileged terms. To complement this financial backing, a set of complementary policies were outlined, spanning trade, industry, macroeconomics, employment, income, social, and environmental policies. The aim was to bolster productive capabilities and foster the creation of quality jobs. While markets play a vital role, it was stressed that a proactive, informed, and developmental state's leadership and guidance are indispensable for the heavy lifting required.

Key guiding principles were articulated to ensure that the transformation is just and sustainable. Development, sustainability, and ecology were highlighted as intertwined goals, with a strong emphasis on the Special and Differential Treatment (SDT) and the UNFCCC principle of 'common but differentiated responsibilities' (CBDR). It was stressed that finance should be grant-based or concessional, recognizing the debt distress faced by many developing countries. In some cases, interest servicing payments surpass expenditures on health or education. The point was made that certain essential projects might never be "bankable."

The presentation raised important questions about the roles of individual countries and the global community, as well as the potential for initiatives at the south-south or regional level to address these challenges.

Concerns were voiced regarding several issues, including the overestimation of what private investment alone can provide, the ambiguous definition of a "bankable project," high levels of private non-official debt unrelated to green activities, the need for ongoing support for public and Multilateral Development Banks (MDBs) in terms of capitalization, political backing, and AAA credit requirements, and the problematic persistence of financial flows into fossil fuels and derivatives. The heavy reliance on Official Development Assistance (ODA) was also noted, particularly in the context of sluggish global economic growth, with world growth at 2.7% and Oceania at 2.2%, leaving South Asia as one of the few regions still experiencing high growth at 5.4%.

In conclusion, the presentation underscored the critical need for financial and industrial policies that promote pollution-free and climate-aligned development, offering guiding principles and raising pertinent concerns for consideration.

Presentation: [Toward a Global Plastic treaty: Control measures, prevention & mitigation services](#)

The presentation discussed the progress toward a Global Plastic Treaty, emphasizing control measures on plastics, as well as prevention, and mitigation services.

As part of the Zero Draft Text of INC-3 on Control and Mitigation (Part II), the subject matter included primary plastic polymers, chemicals, problematic plastic products, and product design. Control and mitigation measures were outlined to prevent adverse impacts on human health and the environment, reduce production and demand, regulate trade, adopt national plans, and address the presence of certain chemicals and polymers.

At the World Trade Organization's Dialogue on Plastic Pollution (Draft WTO/W10), discussions are focused on unnecessary or harmful plastics and trade-related measures, such as improving transparency in trade flows, capacity building for developing members, reducing harmful plastics, addressing environmental and health impacts, controlling cross-border plastic pollution, and promoting trade of goods, services, and technologies to combat plastic pollution.

Some suggestions were made for sustainable plastics trade agenda for the Pacific, including supporting sustainable production and consumption measures, fair and non-discriminatory trade control measures, attention to regions with limited productive capacities, green industrial policies, technology transfer, and special support for Small Island Developing States (SIDS) due to the complexity and uniqueness of their economies.

Presentation on [The potential of plastic substitutes for the Asia- Pacific Region](#)

During the presentation, the focus was on exploring the potential for plastic substitutes in the Asia-Pacific region. The rising trend of plastics trade was highlighted, based on UNCTAD stats findings that a significant increase in trade volume and value of plastics occurred in the region. This escalating

trade poses challenges for waste management, prompting the need to identify and implement effective and safe materials or products as substitutes for plastics.

The Zero Draft Text INC-3 on Non-Plastic Substitutes (Art.6) was discussed, emphasizing the importance of fostering innovation and incentivizing the development and widespread use of safe, environmentally sound, and sustainable non-plastic substitutes. Regulatory and economic instruments, public procurement, and incentives were encouraged to support the adoption of such substitutes at scale.

The presentation also delved into the WTO IDP on Non-Plastic Substitutes (Draft WTO/W10). The focus here was on promoting trade in environmentally sustainable non-plastic substitutes and plastic alternatives. This involved implementing trade-related measures, especially for developing members and Small Island Developing States (SIDS), along with their Micro, Small, and Medium-sized Enterprises (MSMEs).

An important aspect of the presentation was the mapping of Harmonized System (HS) codes for potential plastic substitutes, based on an [UNCTAD Report from 2023](#), which mapped 282 products in the HS system that can perform similar functions to plastics. Charts were presented to illustrate the trade value of plastic substitutes, emphasizing the need for policy coherence in tariff schedules concerning control measures and incentives.

The presentation also emphasized the significance of considering life-cycle views when evaluating material substitutions and their role in mitigating plastic waste and pollution. Several case studies were presented, showcasing various non-plastic substitutes, such as bamboo, Notpla (seaweed-based packaging), Bio-Lutions (natural fiber-based disposables and packaging), Bananatex (fabric from banana plants), and Gaia Biomaterials (biodegradable fishing nets). This was well complemented by field visits by the workshop participants to a local paper mill and to a business deriving cosmetics out of seaweed.

Additionally, selected insights from the UNCTAD-SMEP [Catchgreen project](#) were discussed, which focuses on the development of renewable-based, biodegradable, and compostable fishing nets, using materials like PBAT, PLA, and Calcium Carbonate.

In summary, the presentation shed light on the increasing trade in plastics and the imperative need to explore and upscale non-plastic alternatives. It also emphasized the potential for reducing plastic use and pollution through alternative materials, while advocating for coherent policies across different material sectors and sustainable trade in the Asia-Pacific region.

Presentation **on** the [Trade and Environment Review 2023](#)

UNCTAD's [Trade and Environment Review 2023](#), estimates the worth of oceans goods and services at \$3-6 trillion – and assesses how human activity and multiple global crises have significantly affected different sectors, including fishing, seafood, shipping, and coastal tourism.

Investing in emerging ocean sectors could help developing countries to diversify their ocean exports. The global export value of ocean-based goods, such as seafood and port equipment, and services including shipping and coastal tourism was estimated at \$1.6 trillion in 2021.

The COVID-19 crisis revealed the potential and resilience of some sectors and the extreme vulnerability of others. In general, exports of ocean-based goods, which fell by 3.2%, held up better than services, which collapsed by 59% in 2020.

The report, presented at the [3rd UN Trade Forum](#), calls for a global trade, investment and innovation “[Blue Deal](#)” to sustainably use our ocean, home to 80% of all life. It builds on the recommendations from the [4th UN Oceans Forum](#) and the [2nd UN Ocean Conference](#) held in 2022. A follow up analytical piece

Presentation: [Ethnographic study by UNDP Pacific Office](#)

Dr. Mohseen Dean presented UNDP’s ethnographic study on SIDS stakeholder behavior concerning plastics and plastic pollution. The study highlighted that waste management ecosystems are influenced by many factors in Pacific countries including the ones covered in the study such as Tuvalu, Fiji, Vanuatu, and Tonga.

The ethno-graphic study focused on factors behind community handling of plastic waste. Its primary finding was that “*people who are closest to the problem are the ones closest to the solution*”. Other complexity layers were also noted, such as in the Tonga context, which is facing an ongoing water crisis.

One important question raised for reflection was how local solutions find their way into local policies and legislations, and how local policies and legislations find its way into international agreements, treaties, and others. These binding instruments need to be inclusive of voices of unpopular, marginalized, and underprivileged voices to be transformative in society – voices that are non-represented or underrepresented. Educational factors also compound the problems, such as youngsters not having many environmental themes in school curricula in Pacific countries. The UNDP study also noted a disconnect between actors in the system, as those who contribute to causing the plastic pollution problem are often not those affected by its consequences.

Among its recommendations, the Ethnographic study called for:

- A more concrete regional approach (including regulatory instruments) to deal with plastic pollution.
- Shift regulatory attention to earlier upstream design and production stages, coupled with private sector investment, for example policies and regulations that tax importers of plastics in the Pacific
- Strengthening of data informed decision making by decision and policy makers
- Leverage cross cutting social aspects, such as the social outreach power of faith-based and community managed organizations and institutions, to accelerate awareness raising and environmental action on plastics.
- The importance of finding locally-workable strategies to deal with legacy waste accumulated in nature, even as current waste streams are being gradually addressed.

- Local policies and legislations to be informed via micro-narratives of the users of plastics and plastic products, and the experimentation and scaling of bottom-up solutions.
- Interventions in the Circular Economy space for each Pacific Island nation will require thorough analysis of contextual situations that will help incentivize for the realization of the same
- Loss and Damage arising from transboundary waste movements should be made an integral topic when discussing issues and challenges associated with plastics or other wastes produced, manufactured, and utilized by non-Pacific nations, but as a consequence end up in the Pacific through transboundary movements such as through the ocean
- A more focused form of awareness raising, campaigns, lobbying for sustainable consumerism

General Discussions and Commentary amongst speakers/ participants:

Key remarks from National Pacific representatives and experts working on material substitution options.

Nauru:

(Rep: Mr John Short -Entrepreneur and Environmental Activist)

- As a Nauru representative who is also active in the secondary timber industry in the island state, mentioned that community action is essential when addressing plastics pollution, with a special focus on how policies and high-level decisions affect the ability of recyclers and everyday persons on the ground to do their part.
- It is difficult to get government support in environmental initiatives related to reduction of plastic pollution or waste management, especially with limited resources and a small population (less than 13 000), and high reliance on imports.
- There is potential for stimulating collection of materials and upcycling through corporate sponsorship. Tyre upcycling into creative products such as pot plants and mats is also seen but at a small scale.

Vanuatu:

(Rep: Mr. Michel Raikatalau – Owner Vanuatu Organic Fertilizer)

- Waste hubs: 5 hubs in the country. Using youth suffering from unemployment.
- People have a lax attitude when it comes to waste disposal/ polluting behavior; local initiatives often focus on schools first, women in communities, pastors of churches, in order to sensitize people for action.
- Transportation is complex in Vanuatu – the country is composed of many islands, logistical costs are immense.
- Government is working on adopting policy for CDS for PET bottles, recycling centres.
- Vanuatu has banned plastic bags but it is important to ensure proper alternatives are readily available before introducing bans.
- Vanuatu lacks options for packaging materials; But coconut husks and copra can be used in lieu of mulch films. Banana plants could be used to make fibres. Limited banana leaf usage as packaging material as well, and no exports possible with such material. Lots of sugarcane

waste also available but they need options / capabilities on what to do with it (currently only used for compost). Considering also charcoal briquette production to meet charcoal demand. Opportunities to work with 'Mamas markets' to increase production of plastic substitutes such as woven bags made from natural materials.

Samoa:

(Rep: Ms. Hetta Fuimaono, Samoa Tokelau Association of Recyclers)

Government is unable to fund collection of plastic waste, separate from general waste streams.

- Important to inform legislators to take regulation to next level, prioritizing specific products (such as plastics) instead of general collection.
- There has been some local production of plastic alternatives using coconut fibre but locals still prefer to use plastic products because they are cheaper
- Collection of plastic recyclables are done by organisations such as Samoa Tokelau Association of Recyclers (STAR) but this is self-funded as there is a lack of financial support/ incentives from government
- Movement of non-commercial recyclables: shipping companies are part of the problem as they bring in plastic packaging, so they should also be part of the solution. Moana Taka Partnership with Swire Shipping is a good example of this.

Solomon Islands:

(Rep: Mr. Ezekiel Legunau, Solomon Islands Government, Ministry of Environment)

- Natural fibres are used for basket-making (replaces SUP plastic bags) but it is difficult to achieve consistent standards with locally produced natural material plastic substitutes.
- Straw substitutes could also be produced in Solomon Islands using natural materials/ local plants.
- Bamboo is commonly used by locals to make baskets and waste bins. The problem is that plastic bags are often inserted inside such baskets. Lack of government support for locals to advertise products. Production of bamboo baskets are made on a homemade or small-scale basis, hard to scale up / industrial production scale to meet export markets.
- Solomon Islands passed a bill in September 2023 – 5 products being banned: straw, plastic bags, Styrofoam, PET bottles for water of less than 1.5 liters, plastic utensils (cups, cutlery etc.).
- Another concern is ensuring sustainability of natural material plastic substitutes – one province in the Solomon Islands switched from plastic packaging/ bags to coconut leaves but quickly noticed a depletion of these.

Fiji

(Reps: Dr. David Rohindra – USP, Ms. Janice Taga – Pacific Ocean Litter Youth Project, Virashna Singh – Swire Shipping, Ms. Archana Gupta – Department of Environment)

- Fiji is using some traditional practices involving coconut shells for eating and banana leaves for packaging but requires better thinking of economics of scale to increase product / service delivery capacity. Frequency of transportation logistics is also a challenge, for example, Lau island receives boats only twice per week.
- Traditional materials / pottery making in Fiji used to be large in the past, could be revisited.

- Fiji has a plastic bag ban existing since 2020. Ban applies only to plastic bags smaller than 50 microns (so thicker plastic bags are still in circulation). Thicker plastic bags can cause relatively more damage to nature. Therefore, solutions can make the problem worse. Natural fibres, if used, can be better but we need to be careful with agriculture, reforestation, replanting, and soil quality to avoid agricultural / soil degradation. We should ensure any additives we are using in substitutes are tested to understand the impact on the natural environment.
- It is crucial that cost favours substitutes, otherwise people will choose plastics if the cost is lower. Local recyclers struggle to find enough (separated) materials to process.
- Coconut shells are used for kava drinking, but the design serves only for drinking kava. The design of products need to be changed in order for the product to be more multi-use (drinking juice, serving food, etc.) so the substitute material can be used in more sectors.
- Biosecurity issues can also exist when disseminating substitute materials across countries, such as in Pacific Island states.
- Any bans or market curtails should be taken only if there are suitable alternatives or substitutes in the market.
- Some hygiene products like sanitary pads can be complicated to substitute, as they are expensive and contain plastics. Even locally made ones with alternative materials are expensive for the locals.
- Lack of education in the country explaining types of plastics available and that they should not be mixed.
- Alternatives and substitutes require a lot of creativity. For example, testing has shown that egg coated with cassava starch has potential to keep egg good even if outside fridge for 2 months. But the industry is very reluctant to use such coating.
- In design thinking, disposal is often missing in the thinking process (disposal and end of life). Food radiation /gamma rays should also be considered.

Tonga

(Ms. Mele Tovi – Tonga Government, Ministry of Environment)

- Locals are very creative, and can make products from natural materials, however, making products from plastics is easier, hence its intense utilization.
- Traditional knowledge is present and often seen in the production of plastic substitutes using coconut leaves.
- Funding is a problem for material transition. Support is needed to address lack of human capital, and urgent need to educate communities on negative impacts of plastics, to change behavior and high reliance on plastic utilization.
- Tonga is heavily reliant on imports as there are no manufacturing facilities in the country.
- Tonga's Department of Environment is looking at restricting imports of plastic bottles and potentially setting quotas for imports of plastics.

UNESCAP – Mr. Alexey Kravchenko

UNESCAP has integrated a plastic substitutes list, developed by UNCTAD, into its platform, Trade Intelligence and Negotiations Advisor, (<https://tina.trade>). TINA is an online tool designed to assist trade policymakers and researchers in carrying out analytical tasks commonly conducted as part of

trade agreement negotiations. Many of the tasks undertaken for trade agreement negotiations require specialized analytical and data management skills and are time-consuming when performed manually. TINA automates many such tasks, enabling countries with limited resources to benefit from the same level of preparation as those afforded by larger economies. It was developed in close consultation with current and former members of trade negotiation teams and experts, using state-of-the-art methodologies and technologies.

Since its inception in 2018, TINA has assisted several countries in the region. For example, the at the request of the Government of Bangladesh, TINA was used to help them with the Bangladesh-India trade agreement feasibility study; for the Government of India – studying the potential effects of India-EU, India-UK trade agreements; and for the Government of Mongolia – the potential of the Mongolia-Republic of Korea trade agreement. Bangladesh, Cambodia, Nepal, and Vanuatu have also benefitted from using an additional key feature of TINA which evaluates the trade impacts of least developed country (LDC) status graduation and resulting partial withdrawal of preferences by major trading partners such as the European Union, the United States and China. The relevance of TINA has been repeatedly acknowledged during various intergovernmental events.

The most recent module on plastic substitutes highlights HS six-digit products in negotiations lists as a priority, even if they may be filtered out by other criteria (such as low trade volumes, low tariffs or low competitive advantage). As such, trade policymakers utilizing TINA for feasibility studies will, in the early stages of analysis be reminded of the importance of nature-based solutions. Global online training on this new extension will be forthcoming shortly.

Curtin University representative – Dr. Kate Ringvall

The basis of work should be like the Ikea experience of believing that raw materials could no longer exist if business models were not circular. Curtin is working on specific sectors for plastic substitutes:

- agriculture mulch (used for weed, pest prevention) but creates microplastics. In the long run agriculture mulch kills the soil, as it limits photosynthesis of soil organisms. Agri mulch alternatives are very important. Revisiting traditional agricultural methods is important, as those were useful and sustainable in the long run.
- Substitutes for fishing nets: an area which is problematic and difficult to find alternatives for, finding an alternative can be quite difficult. Expectations for larger catches of fish, raises questions on whether fish nets made of alternative materials can deliver that.
- Packaging materials: Plays into the barrier function, keeping food as fresh as possible, also travel long distances (even overseas) maintaining nutritional and food safety properties.

More research is needed to find out if there are different ways markets to move food / fish / protect soils and still get the end product being affordable. Product design is important, and considerations should be done in the design stage for the return of products to nature. Circular approaches require new ideas on how to get something into a market. Example: lighting as a service / instead of bulb as a service. That shifted responsibility for bulb management onto Phillips (producer) instead of the consumer. Extended Product Responsibility is key in addressing plastic pollution.

Steering Committee, Scientists' Coalition Scientists' Coalition for an Effective Plastics Treaty (SCEPT)
- Professor Richard Thompson

Scientists coalition is a voluntary contribution by scientific community, sponsored by Norway. They are examining biodegradable plastics as a potential alternative material, which has complexities in LCA aspects. Many developed countries do not support alternative materials (e.g., biodegradables) due to sustainability concerns.

Much attention is needed to identify where ideal opportunities exist for insertion of biodegradable plastics. Biodegradables should not be seen as an alternative to proper solid waste management. Biodegradability is a systems process – property of material and the receiving environment. (e.g. commercial composting facility vis-à-vis local environment). Important to have details in the labelling to clearly communicate how packaging materials can degrade, with this information visible on the labelling. For example, the conditions on a tropical beach are very different than in a cold beach / deep sea / water surface, etc. The potential for degradation varies.

Fishing gear and agriculture are examples of sectors where plastics usage is delicate, and few options are available. Important to understand how plastics will biodegrade in soils and waters. Specific barrier plastics such as those used to pack meat and fish could be made biodegradable to be thrown together to composting sites together with biomass.

There is a risk that if public believes that products degrade in the environment, more lax public behavior may emerge as a consequence. There is scientific evidence that many carrier bags labelled as biodegradable are still functional after 3 years on the environment (e.g., biodegradation can be very slow).

We should be careful on using oceans to source material freedstocks from, as even if it doesn't take land, it provides ecosystem services to various ecosystems. Agricultural residues utilization also has limits (as some need to be kept on fields in traditional practices to maintain soil properties). Products aren't necessarily green or sustainable if they come from a renewable source – they can also accumulate in nature, if transformed into a plastic just like conventional fossil plastics.

Sometimes resins and chemicals are added to products (such as banana and bamboo fiber) to make it perform well. Those additives make those products less sustainable and more problematic to engage in circularity. Proper lifecycle assessment is very important to really gauge materials and products performance. There is no "given" sustainable product, evidence is always needed to be able to make such claims.

Day 3 – Finance

Presentation: [Greening the economy - The case of fossil fuels, plastics and plastic substitutes.](#)

[Aligning climate and development finance.](#)

There is serious international concern over the continuously increasing global average long-term atmospheric concentration of carbon dioxide (CO₂); and with no end in sight for fossil fuel finance, this has a direct impact on supply of plastics (plastics are the fossil fuel derivative). Therefore, the need for a plastics treaty is crucial – with trade in plastics being a big and growing business where at least 75% of plastics become waste.

Pacific Island Countries import a significantly larger number of plastics than they export. There may be an opportunity for Pacific Island Countries to increase exports of substitutes. Some options for financial support in the transition to non-plastic material substitutes include Green Climate Fund (GCF), National public or development banks, regional development banks, Asia Development Bank (ADB), Asian Infrastructure Investment Bank (AIIB), World Bank, China Policy Banks, Bilateral Funds, and Sovereign Wealth Funds.

Importance of ensuring a just transition to support the process of transformation. For example, if there is to be an increase in trade policies to support national efforts to reduce unsustainable production and consumption and encourage alternatives & substitutes, then there should be support for technology transfer and capacity building for developing countries to adapt production for greater sustainability, trade in waste management services and technologies, and production of substitutes.

Considerations for how countries will be affected differently by changing plastic trade policies as some are large plastics exporters, while others have a heavy reliance on plastic imports. Special and differential treatment (SDT) and the UNFCCC principle of 'common but differentiated responsibilities' (CBDR) can provide the starting point. More emphasis is needed on support to LDCs and SIDS, especially given the complexities of international climate finance.

Presentation: [Climate Finance](#)

Pacific Small Island Developing States (PSIDS) are disproportionately affected by the impacts of Climate Change – this is exacerbated by limited access to adequate finance which further hinders PSIDS ability to mitigate climate issues, adapt to altered circumstances or recover from loss and damage.

Research shows that there is a significant gap between climate finance flows and climate investment needs through to 2050, with much of this being focused on mitigation rather than adaptation.

Principles for the New Collective Quantified Goal on Climate Finance (NCQG) include Collective But Differentiated Responsibilities & Respective Capabilities (CBDR &RC), Quality of sources and Implementation (results based and effectiveness), Accessibility, Predictable and Flexible, and Sustainability.

Presentation: [Mobilizing Financial Resources for a Green New Deal: Supporting Fiji's Pathway towards a Green Economy](#)

Challenges and Opportunities for Green and Blue Initiatives include:

- Capacity and Partnership - Need for more people that have knowledge of green transition and financial restructuring to be involved in greening the economy.
- Risk Aversion - State and commercial banks lack the risk appetite to provide funds to investors given the lack of experience and confidence.
- Access to climate finance - Issues of climate finance effectiveness relative to the share of funds transferred to the Pacific.
- Difficulties in mobilizing private capital - Difficult getting buy-in from the private sector for climate change adaptation and green economy projects, as private actors perceive the regulatory and legal framework as overly complex and inhibitive.

Challenges in the Energy Sector include high reliance on imported fossil fuels, and transition of the energy sector to renewable energy supply stifled by a monopolistic structure. Opportunities include a high share of 'hydropower in total electricity production, and financial incentives for energy transition.

Challenges in the Tourism Sector include industry being dominated by large chains, and Lack of indigenous owned tourism businesses. Opportunities include various private-sector initiatives contributing to greening the sector, and awareness on the importance of an intact environment and a thriving Indigenous culture.

Recommendations included:

- Acknowledging the private sector as a partner not as a source of finance
- Aligning climate policies, pandemic recovery plans and green growth strategies
- Developing a green tourism industry that is focused on high-yield and low-impact travelers
- Leading the establishment of a Pacific Development Bank

General Discussions and Commentary amongst speakers/ participants:

Need for bankable projects that can be scaled, and a regional integration mechanism for pooling resources and scaling.

- Oceans assets – 24 trillion dollars, but its realization requires protection for ocean biodiversity and stocks assets.
- Working on loss and damage issues, which arise when adaptation fails. E.g. if we don't mitigate, we start to adapt. If we don't adapt, we incur losses and damages. There are economic and non-economic loss and damages. Fisheries is an economic sector where loss and damages is easier to predict. Non-economic damages: Heritage, cultural losses, cultural linkages with coastlines (broken cultural linkages). (Pacific Island Forum)
- Cultural and traditional aspects important in the Pacific. Economic and ecological development sometimes do not take that into account.
- Climate finance is the risk premium on development.
- Development can be forward looking or backward looking. Most negotiations focus on energy transition, but focus should be on just transition. Needs to examine multiple areas, such as education, health systems.
- Most packaging coming into Vanuatu coming from suppliers / imported.
- International Finance Corporation (IFC) commentary: Working with various Fiji authorities for climate resilient housing, green financial system, etc. Seeking examples that can be demonstrated across the Pacific. Developed green finance taxonomy. Debt distress: climate change exacerbates it. But the issue is already there, since export basis is very narrow. Many projects are rejected for financing. The regulator and central bank play a key role, which can enable financial flows into projects. Projects linked to adaptation need to be tailored to country context. Taxonomy is nice but implementation is difficult. Taxonomy identifies what is identified as "green, sustainable or blue" to avoid greenwashing and avoid opportunists taking advantage of the system. Development banks, national banks should be more capitalized to pool more resources. No need to create a regional development bank (where others can play that role). Human resource capacities in SIDS are limited to dealing with novel projects and their management. Communications to people on the street is important for broader popular support to the projects. All projects financed should have embedded climate resilience.

- Blue Prosperity (Andrew Paris) commentary: Worked on mapping levels of plastics on the environment. There is a need to simplify materials, and avoid chemicals added to materials. Substitution of plastics should not be focused on product swapping alone. It should be looking at swapping products to systems.
- Association of recyclers asked how to access funds to make their projects happen. Responses: Asian Development Bank – support mechanisms for SMEs that have bankable projects. Fiji development bank (MSME department) - Business plans are presented to the bank (or to the green climate fund) should be concept note form, usually assisted by UNDP.
- Suggestion to have think tank group that meets on a regular basis; there seems to be potential to pool resources and facilities by different agencies and local institutions to localize activities as much as possible. (Professor David Rohindra)
- A similar proposal made by Prime Minister's Office (Ms. Sandeep Singh - Director Department of Environment), to have a regular coordinating working group of ODA agencies where knowledge can flow across agencies (such as quarterly roundtables).



Workshop participants during enabling finance session on 19 October 2023.



Mr. Henrique Pacini presents on UNCTAD's Trade and Environment Review 2023



Dr. David Rohindra, representative from the University of the South Pacific, comments on feasibility of locally-developed substitutes on October 18th, 2023.



Workshop participants during visit to paper mill (South Pacific Waste Recyclers) in Suva, Fiji on 17 October 2023.

Field visits

Two field missions were organized for workshop participants, to exemplify the practical application of circular economy principles in a paper recycling facility and on the use of domestic natural ingredients (e.g., coconut, noni, hibiscus and passionflower) to produce local personal care products under a refilling and recycling business model. A bilateral meeting was also held with a Fijian start-up that has developed national and international markets for a new range of cosmetic and care products based on harvesting wild seaweed. The company is also exploring the potential of seaweed for food products and for packaging production, with UNCTAD linking them subsequently with some industrial stakeholders and researchers working on seaweed-based cellulose and PHA production. The field visits also assisted workshop participants to link up with industrialists and discuss ideas and tech transfer options to be able to better derive products based on natural fibres from existing agricultural feedstocks, such as textile applications from coconut fibre in Vanuatu.

Contacts:

Marissa.assen@undp.org

Henrique.pacini@un.org

Annex 1: List of Participants

	Participant	Institution	Position	Contact
1	Dr. Kate Ringvall	Curtin University of Technology	Researcher	atiq.zaman@curtin.edu.au
2	Ms Mele Tu'akalau	Ministry of Environment - Tonga	Solid Waste Officer	mele.tovi94@gmail.com
3	Matautia Heta Fuimaono	Samoa	Samoa Tokelau Association of Recyclers (ST	starsamoa2021@gmail.com
4	Michel Raikatalau	Vanuatu	Waste Managment contracted by DOE	raikatalaum@gmail.com
5	Ezekiel Leghunau	Solomon Islands	Environment Officer	ELeghunau@mecdm.gov.sb
6	John Short	Nauru	Parliamentarian	short.john55@gamil.com
7	Karishma NarayanDeepika Singh (P	Fiji - Ministry of Trade, Co-operatives	Director	karishma.narayan@trade.gov.fj
8	Sandeep Singh	Fiji - Department of Environment (Pri	Director	singhsk@environment.gov.fj
9	Dr. David Rohindra	University of South Pacific	Associate Professor	david.rohindra@usp.ac.fj
10	Andrea Volretras	SPREP	POLP manager	andreav@sprep.org
11	Bradley Nolan	SPREP	PacWatePlus manager	bradley@sprep.org
12	Varea Romanu	IUCN	Acting Regional Director/ Head of Oceania Environmental Law Programme	
13	Rufino Varea	Pacific Islands Development Program	Research Fellow	rvarea97@gmail.com
14	Andrew Paris	Blue Prosperity	Environment Coordinator	
15	Laisa Vereti (or)	Pacific Disability Forum (PDF)	Director Operations	Laisa.Vereti@pacificdisability.org
16	Rev James Bhagwan	Pacific Conference of Churches	General Secretary	Jamesb@pcc.org.fj
17	Olivia Baro	Youth Engagement and Empowerment		oliviab@pcc.org.fj
18	Makumo Iwatani	JICA	Assistant Resident Representative (Fiji Office)	Iwatani.Makumo@jica.go.jp
19	Janice Taga	POLYP	MSc Marine Science Graduate	janicetaga@gmail.com
20	Esita Ciri			
21	Archana Gupta			
22	Unaisi Malani	WWF	Program Manager	umalani@wwfpacific.org
23	Virashna Singh	Swire Shipping	SD Management Associate	virashna.singh@swireshipping.com
24	Filimoni Tagicakibau			filimoni.tagicakibau@dfat.gov.au
25	Ms. Diana Barrowclough	UNCTAD	Senior Economic Affairs Officer	diana.barrowclough@unctad.org
26	Mr. Henrique Pacini	UNCTAD	Economic Affairs Officer	henrique.pacini@unctad.org
27	Mr. David Vivas-Eugui	UNCTAD	Senior Economic Affairs Officer	david.vivaseugui@unctad.org
28	Mr. Alexey Kravchenko	UNESCAP	Economic Affairs Officer	kravchenkoa@un.org
29	Mohseen Dean	UNDP	AccLab Head of Solutions Mapping	mohseen.dean@undp.org
30	Filimoni Yaya	UNDP	AccLab Head of Experimentation	filimoni.yaya@undp.org
31	Marissa Asen	UNDP	AccLab Head of Exploration	marissa.asen@undp.org
32	Cynthia Ehmes and Patricia Pedrus	FSM - Department of Environment, CI	Acting Secretary	Cynthia.ehmes@decem.gov.fm
33	Scott Hook			scottmhook@gmail.com
34	Richard Thomson	Plymouth University	Professor	R.C.Thompson@plymouth.ac.uk
35	Sivendra Michael	UNDP		sivendra.michael@undp.org
36	Dhanushki Sahabandu	UNCTAD Asycuda	Team member	dhanushki.sahabandu@unctad.org
37	Kritika Raj	Fiji - Department of Environment (Prime Ministers Office)		kritika.raj@environment.gov.fj
38	Bedi Racule	Ecological Stewardship and Climate Justice		oliviab@pcc.org.fj
39	Emmaline Spring	Fiji Development Bank	Manager Micro Finance	emmaline.spring@fdb.com.fj
40	Fred Wayne Fualikau	Pacific Grow		fred@pacificgrow.co
41	Navi Tuivuniwai	Phama Plus	Country Manager	n.tuivuniwai@phamaplus.com.au
42	Isoa Wainiqolo	ADB	Economist	iwainiqolo@adb.org
43	Sameer Chand	IMF	Acting Officer-in-Charge	schand@ifc.org
44	Talei Cavu	Prime Ministers Office		taleicavu15@gmail.com
45	Vineil Narayan	UNDP	Blue Economy	vineil.narayan@undp.org
46	Manish Reddy	Investment Fiji	Senior Trade Advisor	Manish@investmentfiji.org.fj
47	Karlos Lee	PIF	Res Fin Advisor	karlosm@forumsec.org
48	Tricia Farrelly	Massey University	Professor / Scientists Coallition	T.Farrelly@massey.ac.nz