



Mid-Term Evaluation Brief /2023

PacWaste Plus (PWP) is a regional programme working with Pacific Island States to improve their solid waste management practices. Funded by the **European Union**, PWP is implemented by the **Secretariat of the Pacific Regional Environment Programme (SPREP)**. Between January and August 2023, **NIRAS** conducted a mid-term evaluation of PacWaste Plus, producing a series of findings, conclusions, and recommendations to improve the programme implementation.

Solomon Islands



Country project focus:



Organics Management



Advance Recovery Fees & Deposits (ARFD)

Local actors involved:

Ministry of Environment Climate Change Disaster Management and Meteorology, Western Provincial Government, Gizo Town Council, Gizo Central Market, Honiara Referral Hospital, Gizo Hospital.



Good practices

The Solomon Islands' country project takes place in Gizo, a small town with 7,000 inhabitants. Gizo Town staff are planning to upgrade the dumpsite and transform it into a central waste management site. PacWaste Plus' organic processing facility will be built in that location, which demonstrates that local staff are ensuring synergies between different projects and funds. That same staff is also active in Civil Society Organisations, such as PlasticWise Gizo, which teaches women to make handicrafts from recyclable materials. This small, tight and committed community shows a lot of potential for success.

Lessons learned:

- Gizo market is plastic-free, offering an easy entry point for implementing organic waste processing, as the waste is already sorted. This could be later expanded to household waste, provided that it is accompanied by awareness raising on waste segregation.
- Although solid waste management responsibilities fall within provincial governments, civil society and private sector are important actors to involve, as they can engage in awareness raising, urban cleaning, and technology development.
- Sustainable financing principles applied in recyclables are yet to be incorporated into organic processing to sustain operations beyond the programme implementation period.



Main results achieved:

- A stocktake of existing waste legislation and an assessment of legislative frameworks were completed.
- A waste audit for Gizo Market was completed.
- A feasibility study on sustainable financing legislation for ARFD was developed.
- A paper on sustainable financing legislation was drafted and sent to Cabinet.
- The healthcare waste incinerators at Honiara Referral Hospital and Helena Goldie Hospital, purchased by PacWASTE, were repaired; operational training, spare parts and personal protective equipment was provided to hospital staff.

Next steps:

- Design and implement an organic processing programme in Gizo.
- Build and operate an organic processing facility in Gizo.
- Train staff on the operation of the organic processing facility.
- Passing of sustainable financing law.
- Facilitate awareness programmes for local communities.



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Cook Islands



Country project focus:



Advance Recovery Fees & Deposits (ARFD)

Local actors involved:

Infrastructure Cook Islands (ICI), National Environment Service, Pa Enea councils, Ministry of Finance and Economic Management (Customs and Planning Division).

Good practices

Before PacWaste Plus started, the Cook Islands had introduced segregation at the source for different recyclable waste streams, encouraged household composting and prohibited landfilling of organic waste. A recycling facility in Rarotonga currently has its operations subsidised by the government. When the ARFD legislation drafted by PWP enters into force, this sustainable financing mechanism will ensure the independent operation of the recycling facility. The required infrastructure and technical capacities are already in place, and little behaviour change will be needed, as citizens are already used to segregating their waste. Moreover, the ban on landfilling organic waste drastically reduces the operational costs, leachate pollution and CO₂ emissions.

Main results achieved:

- A waste audit was completed.
- An ARFD policy was developed and a Waste Bill was elaborated.
- Parliament adopted the ARFD policy.
- A detailed model for tariff setting and rollout of the ARFD system was developed.
- Customs systems were updated to enable capture of ARFD items upon import.
- Customs staff was equipped to assume their role in the ARFD system through on-the-job support.
- Feasibility Study and Legislative Guidance completed to guide ICI on options for implementation of ARFD.
- A pilot hand crusher was purchased.

Lessons learned:

- Work on legislation and sustainable financing mechanisms have a high potential for impactful and sustainable project outcomes and should be encouraged to other countries and waste streams where possible.
- Although solid waste management responsibilities fall within federal governments, civil society and the private sector are important actors to involve, as they can engage in awareness raising, urban cleaning, and technology development.
- Besides investing in recycling, activities promoting waste prevention are key, such as banning single-use plastics and other undesirable materials from entering the countries in the first place.



Next steps:

- Adoption of the Waste Bill by Parliament.
- Adoption of the ARFD regulation and implementation in Rarotonga and Pa Enea.
- Train ICI and government staff in ARFD operation.
- Establish community ARFD depots.
- Implement the national education and awareness programme.



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Federated States of Micronesia



Country project focus:



Organics Management

Local actors involved:

Department of Environment, Climate Change, and Emergency Management, Chuuk Environment Protection Agency, Chuuk Public Works Division, Chuuk Women's Council, Yap Environment Protection Agency, Yap Division of Agriculture and Forestry, Yap Public Works Division.

Good practices

The design of the country project in FSM stands out for the evolution from a national to a state approach, covering two of the country's four states: Yap and Chuuk. This project governance implies that SPREP interacts with State Environment Protection Agencies and has mobilised two state officers to support project activities on the ground. In Yap, the project builds on previous initiatives of implementing a composting programme with the existing composting facility managed by Yap Division of Agriculture and Forestry. In Chuuk, the project works with Chuuk Women's Council which is already involved in community awareness raising. In both states, rural communities are targeted and there is a big demand for compost produced in the future composting facilities.

Main results achieved:

- An assessment of legislative frameworks governing waste management was completed.
- A waste audit was completed for the four states: Pohnpei, Chuuk, Kosrae and Yap.
- Yap and Chuuk states were selected for the pilot country project.
- Standard Operating Procedures for the organic facility in Yap was drafted.
- An organic waste monitoring system was established for Yap state.

Lessons learned:

- Although solid waste management responsibilities fall within municipal governments, civil society and the private sector are important actors to involve, as they can engage in awareness raising, community engagement for neighbourhood cleaning, and technology development.
- FSM do not have a wide market of suppliers to fulfil the project needs, implicating that all goods and services are sourced from abroad.
- The involvement of different actors enriches the project by strengthening its ownership and sustainability. However, it demands more cooperation and coordination. Thus, local presence is key to ensuring local actors contribute to the project's objectives.
- Sustainable financing principles are yet to be incorporated into organic processing to sustain operations beyond the programme implementation period.



Next steps:

- Design and build an organic processing facility in Chuuk.
- Implement Standard Operating Procedures for the organic facility in Yap.
- Design and implement an organic processing programme and an organic waste monitoring system in Yap and Chuuk.
- Facilitate awareness programmes and training for local communities.
- Draft and implement community waste monitoring and management plans.

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Fiji



Country project focus:



Organics Management

Local actors involved:

Local actors involved: Ministry of Environment, iTaukei Affairs Board (ITAB) through its Provincial Conservation Division, 25 selected communities from nine provinces.



Main results achieved:

- An asbestos management brief was developed.
- A stocktaking of waste legislation was developed, in co-operation with the Pacific Ocean Litter Project (POLP).
- A waste audit was conducted by the Pacific Region Infra-structural Facility (PRIF) and supported by PWP.
- PacWastePlus with Provincial Conservation Officers from iTAB facilitated community consultations and awareness-raising workshops with 346 people from nine communities located in the provinces of Rewa, Tailevu, Nadroga and Namosi. The consultations included hands-on activities, such as waste audits.

Good practices

The country project in Fiji works with 25 communities in nine provinces. Apart from consulting community members, the project will provide guidance on creating a clean and healthy community by drafting and implementing waste management plans and empower community members to segregate waste and operate the organic processing facility with the possibility to produce compost. PacWaste Plus is cooperating with the Global Environment Facility's Implementing Sustainable Low and Non-Chemical Development in Small Island Developing States ([GEF-ISLANDS](#)) project on recycling and waste collection for these communities. iTAB plans to replicate the organic and recyclables pilot projects across Fiji, based on the Resource Toolkit that the project will develop.

Lessons learned:

- The involvement of different actors enriches the project by strengthening its ownership and sustainability. However, it demands more cooperation and coordination. Thus, local presence is key to ensuring local actors contribute to the project's objectives.
- Although solid waste management responsibilities fall within municipal governments, civil society and private sector are important actors to involve, as they can engage in awareness raising, urban cleaning, and technology development.
- Programmes can achieve much more when collaborating and exploring synergies with other programmes (such as PRIF and POLP).
- Sustainable financing principles are yet to be incorporated into organic processing to sustain operations beyond the programme implementation period.

Next steps:

- Design and implement an organic processing programme in all selected communities.
- Build and operate an organic processing facility in each of the ten pilot communities.
- Establish an organic waste monitoring system.
- Conduct waste audits in 25 communities.
- Draft and implement community waste management and monitoring plans in 25 communities.



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Kiribati



Country project focus:



Asbestos Management

Local actors involved:

Local actors involved: Ministry of Environment, Lands and Agriculture Development, Ministry of Internal Affairs, Banaba Island Council, Rabi Council of Leaders.

Good practices

Kiribati is a small country in territory, but its islands spread over a large area in the Pacific Ocean. Banaba Island is the most Western of Kiribati's islands and is considered an outer island. PacWaste Plus is working to remove asbestos from Banaba Island that were left as legacy from phosphate mining carried out by the British Phosphate Commission for over 80 years. Outer islands do not always benefit from international cooperation, as they have small populations and are logistically challenging to work with. Choosing to work in areas where fewer actors are willing to go and pay the price, such as Banaba Island, is a good practice that highlights the European Union's and SPREP's commitment to priorities established by partner countries and to solve waste pollution where it exists, despite the challenges.

Main results achieved:

- A stocktake of existing waste legislation and an assessment of legislative frameworks were completed.
- An asbestos management brief was developed.
- A justification brief for leaders on Asbestos Management Policy and Regulation for Pacific Island Countries and Timor Leste was produced.
- An asbestos assessment was conducted in the three priority buildings on Banaba Island.



Lessons learned:

- Legislation work has long-term positive consequences to the country if approved. A stronger legislative framework creates the basic conditions for behaviour change, allows better environmental control, and encourages businesses to adapt towards a desired direction.
- Supporting countries to implement bans on the importation of hazardous materials, such as asbestos, prevents waste from being generated in the first place and contributes to the regional goal of an 'asbestos-free Pacific'.

Next steps:

- Conduct a field study to identify high-risk Asbestos Containing Materials-sites, best disposal options with costing and plan for abatement.
- Develop an action plan with short- and long-term management options for Asbestos Containing Materials.
- Remove Asbestos Containing Materials from Banaba Island.
- Support in drafting an asbestos ban legislation and policy.
- Train customs officers on Asbestos Containing Materials identification and asbestos ban legislation.



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Republic of the Marshall Islands



Country project focus:



Organics Management

Local actors involved:

RMI Environmental Protection Authority, Majuro Atoll Waste Company (MAWC), Laura Organics Facility, Jable-Batkan landfill.

Main results achieved:

- A stocktake of existing waste legislation and an assessment of legislative frameworks were completed.
- A waste audit was completed.
- A feasibility study was undertaken to analyse opportunities for introducing an Advance Recovery Fee and Deposit system.
- One week-long hands-on composting training was conducted for six staff at the Majuro Atoll Waste Company.

Good practices

The country project in the Marshall Islands seeks to increase the capacity and improve composting operations of the existing Laura Organics Facility, in Majuro. PacWaste Plus provided a one-week training to staff at MAWC which was highly appreciated by trainees, due to its focus on simple techniques to ensure the right moist, temperature and nutrient conditions. The newly acquired knowledge will allow quick intervention by staff when conditions are not ideal. Previously, staff would make compost only when they had fish meal. With the training, they learned that the most common organic materials they process already contain carbon and nitrogen and can be composted without fish meal. Thus, the organics facility will operate more often and process a larger amount of organics than before. As other PWP's country projects also focus on organics processing, this training could be replicated in other Pacific countries as a good practice.

Lessons learned:

- Improving capacities where they already exist is more straightforward than building them from scratch. Building on the work from previous programmes and addressing the challenges faced by actors working with waste management increases the impact and sustainability of the intervention.
- Sustainable financing principles are yet to be incorporated into organic processing to sustain operations beyond the programme implementation period.

Next steps:

- Purchase organics shredder and equipment to enable diversion and re-use of paper and cardboard, and cardboard collection bins for businesses.
- Develop Standard Operating Procedures (SOP) and easy-to-follow materials for composting and landfill diversion.
- Conduct awareness and educational activities.
- Upgrade the Laura Organics Facility for effective composting.



“ New knowledge to the compost process helps us sustain the knowledge of fertilizing our own food. ”

Majuro Atoll Waste Company staff member



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Nauru



Country project focus:



Asbestos Management

Local actors involved:

Department of Commerce, Industry and Environment (DCIE),
National Waste Management Advisory Taskforce.



Good practices

Nauru's choice of priority waste stream provides a clear continuation of the previous PacWASTE programme (which ran from 2014-2017 focusing only on hazardous waste) and demonstrates coherence between the interventions. PacWASTE surveyed Asbestos Containing Materials in Nauru and replaced them in several Nauru public buildings. Now, PacWaste Plus will venture to remove from the island the asbestos that were collected by PacWASTE and properly dispose them. The country project approach in Nauru highlights that development partners can plan and implement long-term solutions even if their programming cycles are shorter, by planning accordingly and building on previous work. However, the asbestos that PWP will remove are only a fraction of the total asbestos containing materials on the island, a legacy from historic phosphate mining. It is estimated that US\$ 17,3 million are needed to free Nauru of asbestos.

Lessons learned:

- Legislation work has long-term positive consequences to the country if approved. A stronger legislative framework creates the basic conditions for behaviour change, allows better environmental control, and encourages businesses to adapt towards a desired direction.
- Supporting countries to implement bans on the importation of hazardous materials, such as asbestos, prevents waste from being generated in the first place and contributes to the regional goal of an 'asbestos-free Pacific'.

Next steps:

- Remove selected asbestos from the island and adequately dispose of them.
- Develop and implement an asbestos ban draft law.
- Train customs officers on Asbestos Containing Materials identification and asbestos ban legislation.
- Train and certify asbestos abatement personnel consistent with the Asbestos Code of Practice.
- Develop and implement community and business education on asbestos management.

Main results achieved:

- A stocktake of existing waste legislation was completed.
- A waste audit was completed.
- An asbestos management brief was developed.
- A justification brief for leaders on Asbestos Management Policy and Regulation for Pacific Island Countries and Timor Leste was produced.
- Nauru's Asbestos Code of Practice was revised and approved.
- A National Recycling Plan recommending Advance Recovery Fees & Deposit (ARFD) was prepared and submitted to cabinet for approval.



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Niue



Country project focus:



Advance Recovery Fees & Deposits (ARFD)



e-Waste Management

Local actors involved:

Department of Environment of the Ministry of Natural Resources, Niue Waste Recycling Facility, Catholic Church (operating a refund system for aluminium cans).

Good practices

One of the evaluation's findings is that PacWaste Plus is "a piece of the puzzle" of waste management interventions in the Pacific region. The fact that SPREP implements many environmental programmes in the region facilitate donor coordination at the regional level. In Niue, the Australian Government is funding the construction of a waste recycling facility, and PacWaste Plus will support the facility with training and the recycling sector with legislation and policymaking. This is a best practice to ensure coherence and complementarity of interventions, and it ultimately multiplies the benefits from funds invested in Niue.

Lessons learned:

- Legislation work has long-term positive consequences to the country if approved. A stronger legislative framework creates the basic conditions for behaviour change, allows better environmental control, and encourages businesses to adapt towards a desired direction.
- Implementing sustainable financing mechanisms such as ARFD will fund the recycling of aluminium cans, plastic bottles, white goods, and electronic waste. It can potentially increase the financial independence of the country's waste management systems.

Next steps:

- Draft the Waste Management (WM) Bill and the ARFD Regulation.
- Develop a Niue Waste Data Collection monitoring programme.
- Define Standard Operation Procedures (SOP) for ARFD operation.
- Train government staff on ARFD operation and e-waste dismantling and processing.
- Support the removal of recyclables and e-waste from the country by exporting them overseas for recycling.
- Establish an e-waste dismantling centre in the newly built Recycling Facility.

Main results achieved:

- A stocktake of existing waste legislation and an assessment of legislative frameworks were completed.
- A waste audit was completed.
- The Department of Environment collected 4 to 6 containers of electronic waste.
- The Department of Environment collected 150 bulk bags of plastic bottles (PET & HDPE).
- Stakeholder consultations were conducted, and gaps and opportunities were mapped for legislative drafting.
- A feasibility study and legislative guidance on ARFD were developed.





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Palau



Country project focus:



Bulky Waste Management

Local actors involved:

Environment Quality Control Board of Palau (EQCB), Solid Waste Management Division of the Bureau of Public Works, Koror State government, and Customs Office.



Good practices

The design of Palau's country programme is focused on only one waste stream, end-of-life tyres. However, the country project is comprehensive, as it covers several fundamental aspects and principles. It addresses waste prevention by working on importation regulation, waste recycling and reuse by exploring tyres processing options. The project is working on legislation, training, public awareness, and partnerships with the private sector, all of which are necessary conditions for sustainable waste management. Finally, the incorporation of sustainable financing mechanisms will ensure that the end-of-tyre repurposing system finances itself.

Lessons learned:

- Legislation work has long-term positive consequences to the country if approved. A stronger legislative framework creates the basic conditions for behaviour change, allows better environmental control, and encourages businesses to adapt towards a desired direction.
- Expanding the sustainable financing mechanism already in place in Palau for cans and bottles will fund the recycling of used tyres, and it has the potential to increase the financial independence of the country's waste management systems.
- Although solid waste management responsibilities fall within municipal governments, civil society and private sector are important actors to involve, as they can engage in awareness raising, urban cleaning, and technology development.

Next steps:

- Develop an end-of-life tyre legal framework to establish a national standard on importation and allow the financially sustainable management of end-of-life tyres in Palau.
- Design and implement an end-of-life tyre repurposing and recycling programme.
- Train government staff on the end-of-life tyres management system and enforcement of the new legislation.
- Facilitate awareness programmes on end-of-life tyres for local communities.
- Establish public-private partnerships for the management of end-of-life tyres.

Main results achieved:

- A stocktake of existing waste legislation and an assessment of legislative frameworks were completed.
- An assessment of end-of-life tyres in the Pacific and research on the possible uses or processing options for end-of-life tyres were conducted.
- Stakeholder consultations were conducted on the end-of-life tyres repurposing programme and the National Education and Awareness Plan (NEAP).



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Papua New Guinea - PNG



Country project focus:



Local actors involved:

Conservation and Environment Protection Authority (CEPA), National Department of Health (NDoH), Office of State Solicitor – Department of Justice & Attorney General, PNG Customs Authority, Port Moresby General Hospital (PMGH).

Good practices

PNG's choice of priority waste streams provides a clear continuation of the previous PacWASTE programme (which ran from 2014-2017 focusing only on hazardous waste) and demonstrates coherence between the interventions. The selection of hazardous waste for the country project allows SPREP to build on the work and achievements from the previous programme. Moreover, the focus on legislation and policy-making is a great asset of the country project, as a stronger legislative framework will enable the conditions for positive change in the country.

Main results achieved:

- A stocktake of existing waste legislation and an assessment of legislative frameworks were completed.
- A waste audit was completed.
- An asbestos management brief was developed.
- PNG's national healthcare waste management policy was reviewed.

Next steps:

- Develop a national e-waste strategy.
- Finalise the national healthcare waste management policy and guidelines.
- Develop an asbestos Code of Practice and action plan for long-term asbestos management.
- Develop an asbestos importation ban draft law.
- Conduct awareness-raising campaigns on the impact of hazardous waste on the environment and human health.
- Train hospital staff on healthcare waste management, train customs officers to enforce asbestos ban laws and certify CEPA staff on dismantling, handling and disposal of asbestos.

Lessons learned:

- Papua New Guinea is much larger than other Pacific Island States, having its own European Union Delegation (EUD) in Port Moresby. This country's different needs and challenges undermine the contribution of a regional programme such as PacWaste Plus. Supervision of the country project delegated to the EUD in Papua New Guinea, and a stronger mandate to coordinate with local actors would have strengthened the project, especially during travel bans enforced due to the COVID-19 pandemic.
- Cross-cultural challenges in PNG demand bottom-up approaches to foster relationship building and collaboration. Incorporating systems thinking and upgrading local actors' adaptive leadership skills are possible ways to locally contextualize the regional programme.
- Sustainable financing principles are yet to be incorporated into hazardous waste management to sustain operations beyond the programme implementation period.
- Supporting countries to implement bans on the importation of hazardous materials, such as asbestos, prevents waste from being generated in the first place and contributes to the regional goal of an 'asbestos-free Pacific'.





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Samoa



Country project focus:



e-Waste
Management

Local actors involved:

Ministry of Natural Resources and Environment (MNRE), Samoa Recycling & Waste Management Association (SRWMA), Ministry of Finance, Customs Authority, and Samoa Tokelau Association of Recyclers (STAR).

Good practices

Exploring synergies with projects and programmes financed by other institutions than the European Union is a way to increase the impact of interventions and ensure a more sustainable and coherent approach to waste management in the Pacific region. In Samoa, coordination with the Global Environment Facility's *Implementing Sustainable Low and Non-Chemical Development in Small Island Developing States (GEF ISLANDS)* has been particularly good. While PacWaste Plus will support the construction of an e-waste dismantling and storage facility, GEF ISLANDS will support the construction of an e-waste learning centre to provide electronic repair training to the community. Both programmes coordinate by organising joint meetings with MNRE, and since 2022, they share a National Officer hired specifically to assist both projects.

Main results achieved:

- A stocktake of existing waste legislation and an assessment of legislative frameworks were completed.
- An asbestos management brief was completed.
- An Advance Recovery Fees & Deposit (ARFD) Feasibility Study was completed, covering several waste streams, including e-waste.
- A National Consultation was facilitated to gather input from relevant stakeholders.
- The location of the e-waste dismantling site was selected.

Lessons learned:

- The Government of Samoa has established a separate division within the Ministry of Natural Resources and Environment to focus solely on Waste Management. This will allow the specialisation of solid waste management experts, avoiding overload caused by minimal human resources.
- Implementing sustainable financing mechanisms such as ARFD will fund the recycling of end-of-life electrical and electronic products, among others. It can potentially increase the financial independence of the country's waste management systems.
- Although solid waste management responsibilities fall within governments, civil society and private sector are important actors to involve, as they can engage in awareness raising, urban cleaning, and technology development.



Next steps:

- Design and implement an e-waste "Take Back system".
- Build and operate an e-waste dismantling and storage facility in Tafa'igata.
- Design and implement an e-waste monitoring system.
- Facilitate training on Safe dismantling and handling of e-waste.
- Continue the implementation of awareness programmes for local communities.



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Timor-Leste



Country project focus:



Healthcare Waste Management

Local actors involved:

Ministry of Health, Ministry of Foreign Affairs (with former National Authorizing Officer), National Authority for Water and Sanitation (ANAS), Secretary of State of Environment.



Good practices

The waste audit was reported as a main contribution of the project, according to the National Authority for Water and Sanitation (ANAS). A private contractor translated the materials into Tetum and remotely trained ANAS' staff on the waste audit methodology in 2021, as there were still travel restrictions in place. The local staff collected qualitative and quantitative data from households and businesses in urban, peri-urban and rural areas. Having conducted this work themselves will allow ANAS to perform waste audits in other locations and use the data in decision-making.

Lessons learned:

- Language is a significant barrier to implementing project activities in Timor-Leste. While some people speak English, some others speak Portuguese, the common national language is Tetum.
- Timor-Leste is a much larger country than other Pacific Island States, having its own European Union Delegation (EUD) in Dili. This country's different needs and challenges undermine the contribution of a regional programme such as PacWaste Plus. Supervision of the country project delegated to the EUD in Timor-Leste, and a stronger mandate to coordinate with local actors would have strengthened the project, especially during travel bans enforced due to the COVID-19 pandemic.
- Sustainable financing principles are yet to be incorporated into healthcare waste management to sustain operations beyond the programme implementation period.

Main results achieved:

- A stocktake of existing waste legislation and an assessment of legislative frameworks were completed.
- A household waste audit was completed in the Baucau and Covalima Districts.
- An asbestos management brief was developed.
- A healthcare waste management strategy was drafted and discussed with relevant stakeholders.
- A technical assessment of the condition and needed repairs of healthcare waste incinerators in Baucau, Maubisse and Suai hospitals was conducted.

Next steps:

- Repair and commission healthcare waste incinerators purchased during the previous PacWASTE programme.
- Prepare and implement healthcare waste management plans for three hospitals.
- Remove contaminated soil due to open burning of healthcare waste from Baucau hospital grounds.
- Carry out healthcare waste management training with hospital staff.



Rezumu avaliasaun Termu-Médiu /2023

PacWastePlus (PWP) ne'e programa rejional ida ne'ebé servisu hamutuk ho estadu illa Pasífiku nian atu hadia sira nia prátika jestaun Lixu Sólidu. Finansia husi **Uniaun Europeia**, PWP ne'e implementa husi **Sekretariadu Programa Ambiental Rejional Pasífiku nian (SPREP)**. Entre Janeiru no Agostu 2023, **NIRAS** halo avaliasaun (termu-mediun) ba PacWastePlus, produs deskoberta lubuk ida, konluzaun, no rekomendasaun atu hadia implementasaun programa ida ne'e.

Foko Projetu nasaun nian:



Lixu Saúde nian

Autor Lokal ne'ebé involve:

Ministériu Saúde Ministériu Negósiu Estranjeiru (Ho antigo, Ordenador Nasiona), Autoridade Nasiona ba Be'e no Sanitasaun (ANAS), Sekretáriu Estadu Meu Ambiente.



Resultadu prinsipál ne'ebé hetan:

- Konkluí tiha ona levantamentu husi lejislasaun existente kona ba lixu no avaliasaun ba kuadru lejislativu.
- Auditóriu lixu ba uma kain kompleta ona iha distritu Baukau no Kovalima.
- Resumu jestaun ba amiantu/absestu dezenvolve tiha ona.
- Estratéjia jestaun ba lixu saúde elabora tiha ona no diskute tiha ona ho parte interessada sira.
- Realiza tiha ona avaliasaun téknika ida hodi hadia kondisaun Insinerador Lixu Saúde nian iha hospital Baukau, Maubisse no Suai.

Timor-Leste



Pratika diak

Auditoria lixu sai hanesan kontribusaun prinsipal ida husi projetu ida ne'e, haktuir Autoridade Nasiona Be'e no Sanitasaun (ANAS). Kontratór privadu ida tradus material sira ba Tetum, no fó treinamentu liu husi plataforma virtual ba ofisial ANAS nian kona ba metodolojia auditoria lixu nian iha 2021, tamba momentu ne'ebá sei iha hela restrisaun viajen ba rai liur. Ofisial lokál sira halibur dadus kualitativu no kuantitativu iha area urbanu, pre-urbanu no rural. Halao tiha servisu ne'e rasik sei permite ANAS hodi bele halo tan servisu ne'ebé hanesan iha fatin seluk no uza dadus sira ne'e hodi foti desizaun.

Lisaun aprendidas:

- Lingua sai barreira siknifikativu ba implementasaun atividade projetu iha Timor-Leste. Enkuantu ema balun koalia Inglés, balun koalia Portugés, lingua komún nasional mak Tetum.
- Timor-Leste ne'e nasaun boot liu kompara ho illa estadu pasífiku sira seluk, ho iha rasik Delegasaun Uniaun Europeia (EUD) iha Dili. Nasaun ida ne'e iha nia nesiedade no dizafiu ne'ebé diferente tan ne'e hafraku tiha kontribusaun programa rejional nian hanesan PacWaste Plus. Supervizaun ba projetu iha nasaun ne'e wainhira delega ba EUD iha Timor-Leste, ho mandatu ida ne'ebé forsa liu hodi koorde-na ho autór lokál sira sei haforsa liu projetu, liu-liu durante tempu bandu hodi halo viajem tamba pandemia COVID-19.
- Prinsipiu finansiamentu ne'ebé sustentavel sidauk inkorpora ba iha jestaun Lixu saúde nian atu sustenta operasaun bainhira periodu implementasaun programa ne'e remata.

Passu tuir Mai:

- Hadí'a no tau iha operasaun insinerador lixu saúde ne'ebé sosa durante iha programa PacWASTE.
- Prepara no implementa planu jestaun lixu saúde ba hospital tolu.
- Hasai rai-foer-tahu sira ne'ebé kontaminadu tamba sunu lixu saúde iha rai-area nakloke iha hospital Baukau.
- Halao atividade treinamentu jestaun lixu saúde ba ofisial hospital sira.



Mid-Term Evaluation Brief /2023

PacWaste Plus (PWP) is a regional programme working with Pacific Island States to improve their solid waste management practices. Funded by the **European Union**, PWP is implemented by the **Secretariat of the Pacific Regional Environment Programme (SPREP)**. Between January and August 2023, **NIRAS** conducted a mid-term evaluation of PacWaste Plus, producing a series of findings, conclusions, and recommendations to improve the programme implementation.

Tonga



Country project focus:



Asbestos Management

Local actors involved:

Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change & Communication (MEIDECC), Ministry of Infrastructure, Tapuhia Landfill.

Main results achieved:

- A stocktake of existing waste legislation and an assessment of legislative frameworks were completed.
- An asbestos management brief was developed.
- A justification brief for leaders on Asbestos Management Policy and Regulation for Pacific Island Countries and Timor Leste was produced.
- An asbestos assessment was conducted in Tongatapu, to identify priority buildings for asbestos abatement.
- An Asbestos Code of Practice was developed for Tonga.
- A Case Study on the Asbestos Containing Material Disposal process at Tapuhia Landfill was conducted.
- The healthcare waste incinerator at Prince Ngu Hospital, on Vava'u, Tongatapu, purchased by PacWASTE, was repaired; operational training, spare parts and personal protective equipment was provided to hospital staff.



Good practices

Tonga's choice of priority waste stream provides a clear continuation of the previous PacWASTE programme (which ran from 2014-2017 focusing only on hazardous waste) and demonstrates coherence between the interventions. PacWASTE surveyed Asbestos Containing Materials in Tongatapu and Vava'u. The Pacific Asbestos Assessment Report issued by PacWASTE recommended work on legislation to manage and ban importation of asbestos. Apart from building on previous work, PacWaste Plus recognizes the urgency of asbestos management in Tonga due to risks of exposure to asbestos-containing debris from natural disasters, such as tropical cyclones.

Lessons learned:

- Legislation work has long-term positive consequences to the country if approved. A stronger legislative framework creates the basic conditions for behaviour change, allows better environmental control, and encourages businesses to adapt towards a desired direction.
- Supporting countries to implement bans on the importation of hazardous materials, such as asbestos, prevents waste from being generated in the first place and contributes to the regional goal of an 'asbestos-free Pacific'.



Next steps:

- Support in drafting an asbestos ban legislation and policy.
- Implement the Tonga Asbestos Code of Practice.
- Train customs officers on Asbestos Containing Materials identification and asbestos ban legislation.
- Train and certify asbestos abatement personnel consistent with the Asbestos Code of Practice.
- Develop a strategic action plan with long-term management options for Asbestos Containing Materials.
- Remove Asbestos Containing Materials from Tongatapu.



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Tuvalu



Country project focus:



Advance Recovery Fees & Deposits (ARFD)



Asbestos Management

Local actors involved:

Department of Environment, Department of Waste Management (DWM), Department of Customs, Department of Surveying.



Good practices

The Tuvalu government chose to focus PWP's country project on six outer islands: to remove asbestos and expand the waste levy system existing in the capital, Funafuti, to other islands. Outer islands do not always benefit from international cooperation, as they have small populations and are logistically challenging to work with. Choosing to work in areas where fewer actors are willing to go and pay the price is a good practice that highlights the European Union's and SPREP's commitment to priorities established by partner countries and to solve waste pollution where it exists, despite implementation challenges.

Lessons learned:

- Legislation work has long-term positive consequences to the country if approved. A stronger legislative framework creates the basic conditions for behaviour change, allows better environmental control, and encourages businesses to adapt towards a desired direction.
- Supporting countries to implement bans on the importation of hazardous materials, such as asbestos, prevents waste from being generated in the first place and contributes to the regional goal of an 'asbestos-free Pacific'.
- Expanding the sustainable financing mechanism already in place in Tuvalu will fund the recycling of aluminium cans, plastic bottles and car batteries, and it has the potential to increase the financial independence of the country's waste management systems. Community members will be able to claim refunds from the waste levy and benefit from a cleaner environment.

Next steps:

- Update Island by-laws to provide for collection and handling of waste levy (ARFD) items.
- Approve and enact asbestos importation ban regulation.
- Build Waste Levy Depots on six outer islands of Tuvalu.
- Identify the quantity and location of asbestos on all outer islands, and develop a strategic action plan for their removal or abatement.
- Train government staff on asbestos assessment.
- Train government staff on ARFD operation, including safe shipping of hazardous waste.

Main results achieved:

- An assessment of legislative frameworks was completed.
- A waste audit was completed.
- An asbestos management brief was developed.
- Awareness and consultation sessions have shown considerable support for an asbestos importation ban.
- A paper regulating an asbestos importation ban was submitted to Cabinet for approval.
- A rapid diagnostic tool for measuring asbestos in materials was tested by DWM staff, along with training on basic asbestos identification.
- A Standard Operation Procedures (SOP) to conduct asbestos assessment on outer islands was developed.



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Vanuatu



Country project focus:



**Advance Recovery Fees
& Deposits (ARFD)**

Local actors involved:

Department of Environmental Protection and Conservation (DEPC), Product Stewardship Scheme Working Group (formed by government and private sector stakeholders), Vanuatu Council of Ministers, Port Vila Municipal Council, Luganville Municipal Council (LMC).

Main results achieved:

- A stocktake of existing waste legislation and an assessment of legislative frameworks were completed.
- A waste audit was conducted in Luganville and Espiritu Santo islands.
- **Following Tropical Cyclone Harold in 2020**, PWP conducted disaster recovery community training for 202 people and developed disaster waste management plans for nine communities.
- A community waste clean-up involving 106 people collected 239 m³ of disaster waste.
- Support to drafting an ARFD policy was given.
- A feasibility study and legislative guidance on ARFD were developed.
- The healthcare waste incinerator at Norsup Hospital, purchased by PacWASTE, was repaired; operational training, spare parts and personal protective equipment was provided to hospital staff.

Good practices

Vanuatu has been developing an ARFD solution named Product Stewardship Scheme (PSS) since 2017, through a public and private sector working group supported by the Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management in Pacific Island Countries (J-PRISM). PacWaste Plus will contribute to implementing the PSS with legislation and policymaking, training, and operation procedures to enable the proper functioning of the recovery fee system. The Vanuatu government has seized the opportunity to use a new programme (PWP) to build on and expand the on-going work in the country, ultimately multiplying the benefits from funds invested in Vanuatu.

Lessons learned:

- Get approval on the ARFD policy and draft the ARFD regulation.
- Develop a Vanuatu Waste Data Collection monitoring programme.
- Support the implementation and operation of the ARFD system.
- Conduct training on Effective Inclusive Consultation and ARFD operations for government staff.
- Define Standard Operation Procedures (SOP) for ARFD operations.
- Deliver a legacy waste buy-back event to clean up communities and avoid overflow of the PSS once it is introduced.

Next steps:

- Flexibility in implementing the programme allows for urgent needs to be taken in even though they were not initially planned, such as the Tropical Cyclone Harold recovery.
- Implementing sustainable financing mechanisms such as ARFD will fund the recycling of aluminium cans, plastic bottles, and eventually bulky and electronic waste, and it has the potential to increase the financial independence of the country's waste management systems.

