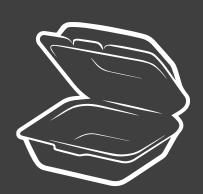
# Marine Plastic Pollution in the Pacific region

太平洋地域における海洋プラスチックごみ













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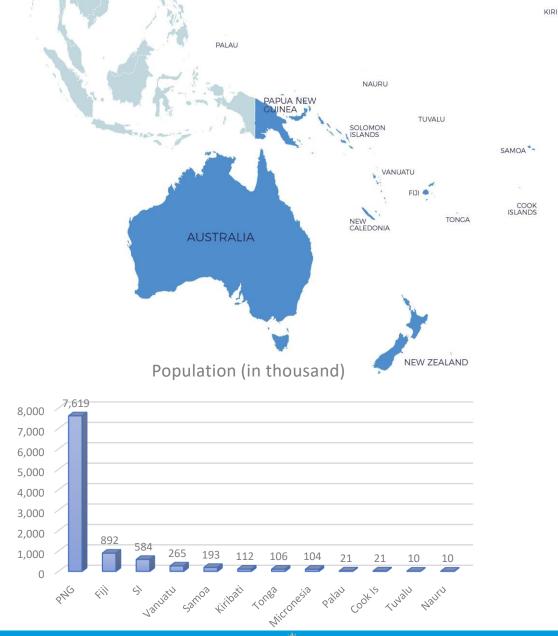


### **Introduction: the Pacific Island Countries**



- 22 island countries and territories, each with different characteristics and uneven rates of urbanization.
  - 22のそれぞれ特徴の異なる島嶼国からなる
- Demographics of the region varies, ranging from a population of almost 8 million (PNG) to small island countries with just over 10.000 inhabitants. 人口規模もPNGの800万から1万足らずの国まで多様
- The region share some common issues and threats such as exposure to climate change impacts and natural hazards.
  - 気候変動の影響など共通の課題もある
- The Pacific is characterised by limited land for urban expansion and for waste management. 都市の拡張やゴミ処理など土地の不足の問題も共通
- Rural-Urban Migration is resulting in informal settlement growing.

農村から都会への移動の増加によって都市が拡大





 Oceania covers 100 million km<sup>2</sup>, more than half of the Pacific Ocean and almost a fifth pf the world's ocean area.

### オセアニア地域は太平洋の半分の面積を占める

• PIC generate around 310,000 tonnes of waste plastics per year and much of it ends up in coastal waterways and coastal waters.

### 太平洋諸島では毎年31万トンのプラごみが海岸に排出

 Although PIC contribute less than 1% to the mismanaged plastic waste loading in all the world's oceans, the region often bears the burden of marine plastic pollution.

世界の海に排出されるプラごみのうち、太平洋諸島のゴミは1%以下だが、プラごみの影響を最も受ける

 The Pacific Urban Forum highlighted the persistent and growing solid waste management problem in the region.

来t氏開催された太平洋都市フォーラムでも廃棄物の課題

は議論された





# Challenges: Status of SWM and plastic problem in the region

太平洋地域における廃棄物とプラスチックの現状











### Source of marine plastics pollution in the Pacific Island Countries

太平洋島嶼国の海プラゴミの発生元



### **Uncollected solid waste**

- Take-away food and beverage containers;
- Packaging and various end of life consumer products;
- General litter.

適切な廃棄物管理が行われていない



### Maritime source of plastic pollution

- Shipping vessels;
- Fishing operations;
- Cruise ships.

船舶・漁船・客船からのゴミ投棄





### Source of marine plastics pollution in the Pacific Island Countries

太平洋島嶼国の海プラゴミの発生元



### **Disaster waste**

- Cyclones, typhoons and tsunamis transport all types of waste to river, lagoon,
   estuary and ocean accelerating loads of marine litter;
- Disaster recovery often involves extra waste.

サイクロン・台風・津波などを原因とする災害ガレキ・復興事業にともなって発生するガレキ



### **Beachside tourist enterprises**

- Tourist-based beach food containers and packaging.
- Public events and public littering.

観光業に係る海岸汚染:容器や包装など





### How to tackle the problem?

海プラごみへの対応









• **Fiji** in 2017 introduced a 10-cent plastic bag levy which considerably reduced plastic bag consumption within society. Fiji voluntary committed to ban plastic bags by 2025.

<u>フィジー</u>では、10セントの有料レジ袋を導入したことにより使用が少し減少。2025年までにレジ袋禁止を明言。



 Vanuatu was the first Pacific country to announce a complete ban on plastic bags and polystyrene containers, and the first country in the world to introduce a ban on plastic straws. In 2019, Vanuatu announced a ban on disposal nappies.

<u>バヌアツ</u> は他の太平洋諸国に先駆けてレジ袋やポリ容器を禁止、世界で初めてプラスチックストローも禁止。2019年には、使い捨てオムツも禁止を発表。

• **Samoa** in 2019 introduced a ban on import, manufacture, export, sale and distribution of plastic shopping bags, packing bags and straws.

<u>サモア</u> 2019年にすべてのプラスチック買い物袋、容器、ストローの輸入・製造・輸出・ 販売を禁止





• **Papua New Guinea** has announced the introduction of a plastic ban in 2018. The ban is not yet enforced.

パプアニューギニア では2018年にプラスチック禁止を発表したが、まだ実施はされていない。



• The Republic of the Marshall Islands banned the importation, manufacture and use of single-use plastic shopping bags, Styrofoam cups and packaging.

<u>マーシャル諸島</u> 使い捨てプラスチック袋、発泡スチロール製のカップや梱包材の輸入・製造・ 使用を禁止

• **Niue** in 2018 has announced a plan to ban plastic bags providing reusable organic bags for the families living in the island.

<u>ニウエ</u> では2018年にプラスチック袋を禁止し、再利用可能なオーガニックの袋を島の住民世帯に配布した



- Solomon Islands' Western Province has published a White Paper on Prohibition of Sale of Single Use Plastic in 2019 ソロモン諸島の西部集では、2019年に使い捨てプラスチックの販売を禁止する白書を出版
- Gizo Island in Solomon Islands has a Plastic Free Initiative ソロモン諸島のギゾ島では、プラスチック・フリー政策を実施
- A plastic sales scam is growing in Honiara and other towns of Solomon Islands ソロモン諸島のホニアラや他の町でプラスチック







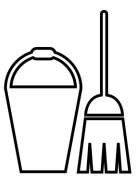


In addition, clean-ups and other community mobilisation/sensitisation events are taking place in order to remove plastics from beaches and waterways, for example:

海岸や水路からプラスチックをなくすための清掃や他のコミュニティ活動・イベントを実施

### **World Clean-up Day**

Taking place worldwide every year in September;



### **Private sector initiatives**

A private Beach Resort in Fiji organised its Environment Day initiative with over 70 volunteer cleaners collecting rubbish in its surrounding mangroves and dive area.

### Pacific Games 2019

Samoa organised the first "green" and plastic free edition of the Pacific Games in 2019, raising awareness among the population and region-wide.





 Kiribati introduced a sustainable waste management system in 2003 consisting in a "money-back" process for aluminum cans, PET bottles and used car batteries.

キリバスでは2003年よりアルミ缶・ペットボトル・使用 積みカーバッテリーのリサイクルに'返金'システム を導入

 Niue is building a waste recycling facility to help recycle imported goods that will be exported offshore beginning with glass bottles and PET plastic bottles.

ニウエでは、リサイクル施設を建設し、輸入ガラス瓶やペットボトルなどをリサイクルし輸出加工する予定

A number of initiatives aiming to improving landfills are implemented as part of the J-PRISM project I & II. Sites improved include: Samoa, Tonga, Solomon Islands, PNG, Vanuatu, Fiji, Palau, Micronesia and Marshall Islands.

JICAのJ-PRISM(大洋州地域廃棄物管理改善支援 プロジェクト)がサモア、トンガ、ソロモン諸島、パプ アニューギニア、バヌアツ、フィジー、パラオ、などを







Examples drawn by Pacific Island countries

Moving forward from classical solution, there are innovative projects which aim to give a second life to plastic waste.

プラスチックごみに第二の人生を与える革新的なプロジェクトもはじまる

### **Plastic waste for 3-D printers**

USAid in the Pacific supports the establishment of 3-D printers in small islands. The initiative hopes to be a solution for recycling plastic. In this way, useful tools, parts or souvenirs for tourists can be made out of plastic waste.

プラスチックをリサイクルする解決策のひとつとして、小規模の島では廃プラスチックで観光客への土産品やパーツなどを製作するために3Dプリンターを導入(USAID支援事業)









### Mataniko Clean Up and Rehabilitation Project

マタニコ川・クリーンアップ・プロジェクト





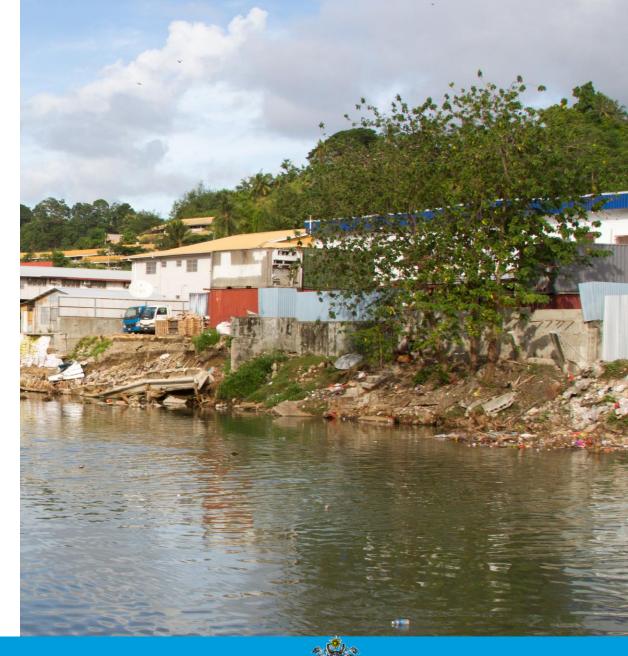




### **Background information**

- The Mataniko River Clean Up / Rehabilitation Project aims to clean up, rehabilitate and promote proper waste management practices through awareness, education and training and promotion of 3R activities;
- Started in 2014 5 year project;
- Funded by Solomon Island Government and lead implemented by Ministry of Environment, Conservation and Disaster Management (MECDM);
- Other Partners: Ministry of Lands, Housing & Survey / UNHABITAT

マタニコ川清掃プロジェクトは2014年に始まった 5ヵ年プロジェクトで啓発・教育・研修などを通じ て正しい廃棄物管理や3R活動を目指すもの

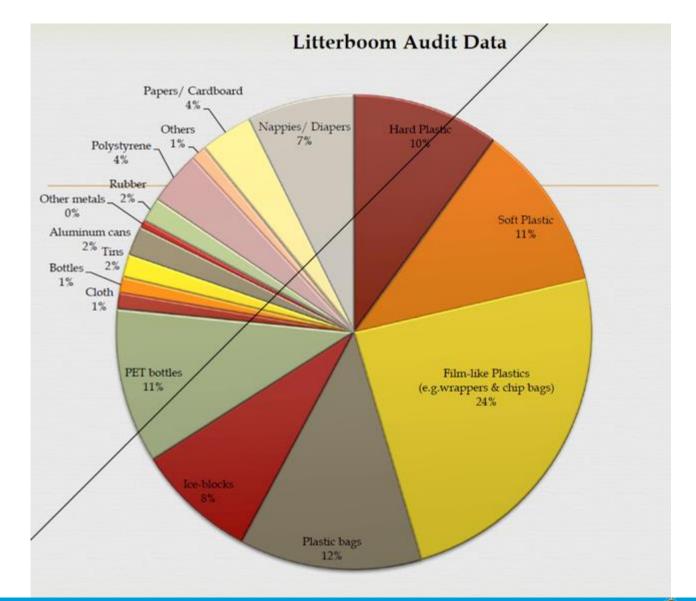






### Types of plastic waste

### プラスチックごみの内訳





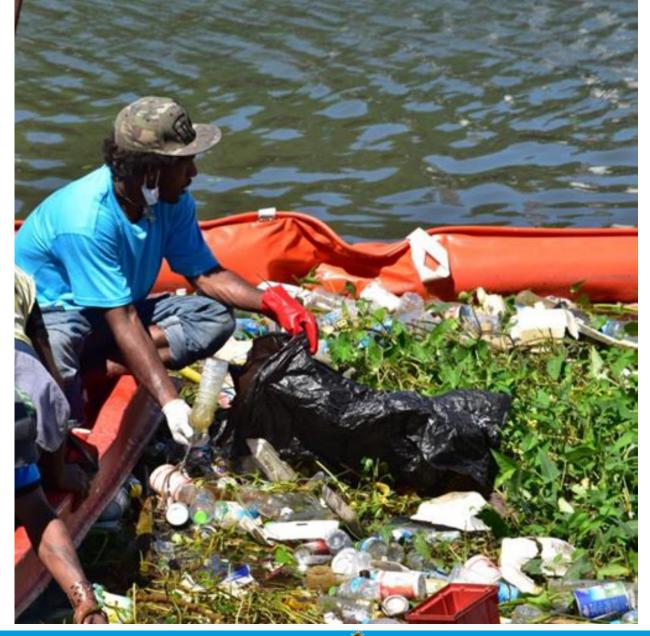


### **Activities / Outputs since 2015**

### 2015年以降の活動成果

- Installation of Litter Boom Project 2015;
- Data collection, analysis and reporting of data for media awareness (SIBC and newspaper);
- Installation of collection bins;
- Awareness programmes to schools;
- Communities and schools around Mataniko.

データ収集や分析、メディアを活用した周知、ゴミ 箱の設置、学校での注意喚起プログラム、マタニコ 川沿岸の学校やコミュニティを巻き込む





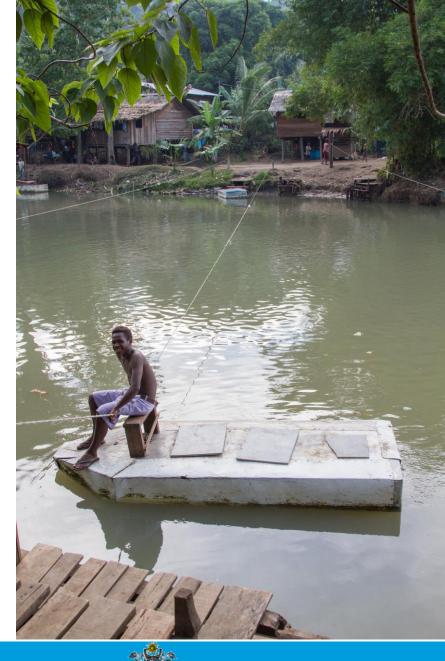


### **Activities / Outputs**

2015年以降の活動成果

- Mataniko schools to be part of the ecoschool program;
- Beach clean up World Environment Day
- Established a working partnership Pacific Ecosystem-Based Adaptation to Climate Change (PEBACC) Project;
- Community household collection bin survey;
- River cleaning and canoe race.

マタニコ川周辺の学校でのエコ授業の実施、世界環境の日の海岸清掃、コミュニティ単位での世帯ゴミ箱回収調査の実施、河川清掃やカヌー競技大会の実施





### **Activities / Outputs**

### 2015年以降の活動成果

• Established a working partnership with the SI Ridge to Reef Project



Support to Renlau Community for composting コンポストの普及



Solid Waste Management Training at Renlau Community 廃棄物管理トレーニング



### **Activities / Outputs**

### 2015年以降の活動成果

Tree planting on June 5 during World Environment Day;

世界環境デーでの植樹イベント

• Create partnership with Nufuels Company and Caritas New Zealand to implement waste to energy pilot project in collaboration with Mataniko and R2R projects. A demonstration was conducted at Tuvruhu community on the pyrolysis system that was promoted by the project.

民間企業とのパートナーシップによるゴミ発電プロジェクトの実施



Pyrolysis System Demonstration at Tuvaruhu Community . Waste to Energy Project



Mataniko Solid Waste Action Plan Development Workshop

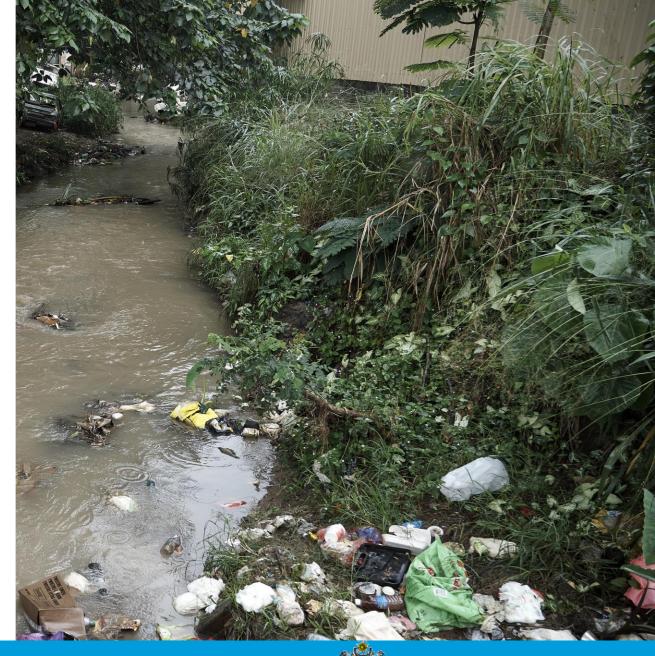




### Challenges 課題

- No full-time coordinator for the program; このような事業の専従者がいないこと
- Inefficient collection system;ごみの回収が不十分・非効率
- River is used as dump site;
   河川にごみが投棄される
- Different types of waste are dumped in the river (liquid, solid, war relics);
  - 色々な廃棄物が河川に投棄される(汚水、固形、ガレキ) No proper land use planning – No buffer along
- No proper land use planning No buffer along the river.

適切な土地利用計画がない、護岸設備がない







### **Opportunities**

今後の機会

- Potential for further collaborations by various partners;
   多様なパートナーとの連携
- Youth involvement in plastic waste initiatives is encouraging; 若者の参加
- Need for technological solutions to local plastic waste problems;

プラごみ問題の解決のための技術的な解決の検討

- Provincial and community level groups are taking the lead;
   ローカルレベルのリーダーシップ
- Plastic scam reveals opportunities for income generation on plastic trade;

プラスチックビジネスによる収入創出の機会

Increase recognition of plastic waste as a problem.

プラスチックごみ問題の認識

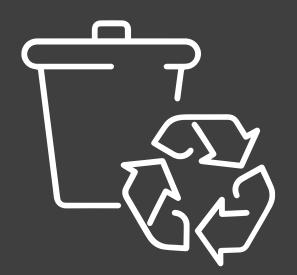






## Conclusion What future for plastics?

プラスチックの未来は?











The fight against plastics pollution will be a crucial challenge Pacific island Communities in coming years.

プラスチックごみとの戦いは、太平洋諸国にとって最大の課題となる

Innovative and smart solution for plastic reuse and recycle are growing around the world with some remarkable success – allowing for recycling at large scale – road construction & building materials.

プラゴミを道路や建設資材として再利用するなど、革新的な技術によって新しい再利用・リサイクルの方法を考える

In order to be effective, policy work must improve, working towards the promotion of a 3R culture among civil society and private sector – in the Pacific the ban of single use plastic needs to be accelerated supported by new technologies with support from Japan..

日本の支援や経験から学び、政策レベルでの改善と市民・民間を巻き込んだ3Rの文化を根付かせる、使い捨てプラスチックの際はな業界

3 の廃止を普及

Community based solutions for reduce, reuse, recycling – to be integrated in informal settlements upgrading sustainable livelihood solutions.

コミュニティ単位での3R、インフォーマル集落の生活改善の中にも盛り込む

At the local level fighting plastic pollution must be linked with broader initiatives for the general economic and social development, improvement of SWM systems (including Fukuoka Method) and promotion of new-lifestyles.

より広い経済社会開発の枠組みのなかで(福岡方式などの技術を含む)廃棄物管理システムの改善を通してプラごみ問題の

解決を図る







## Thankyou