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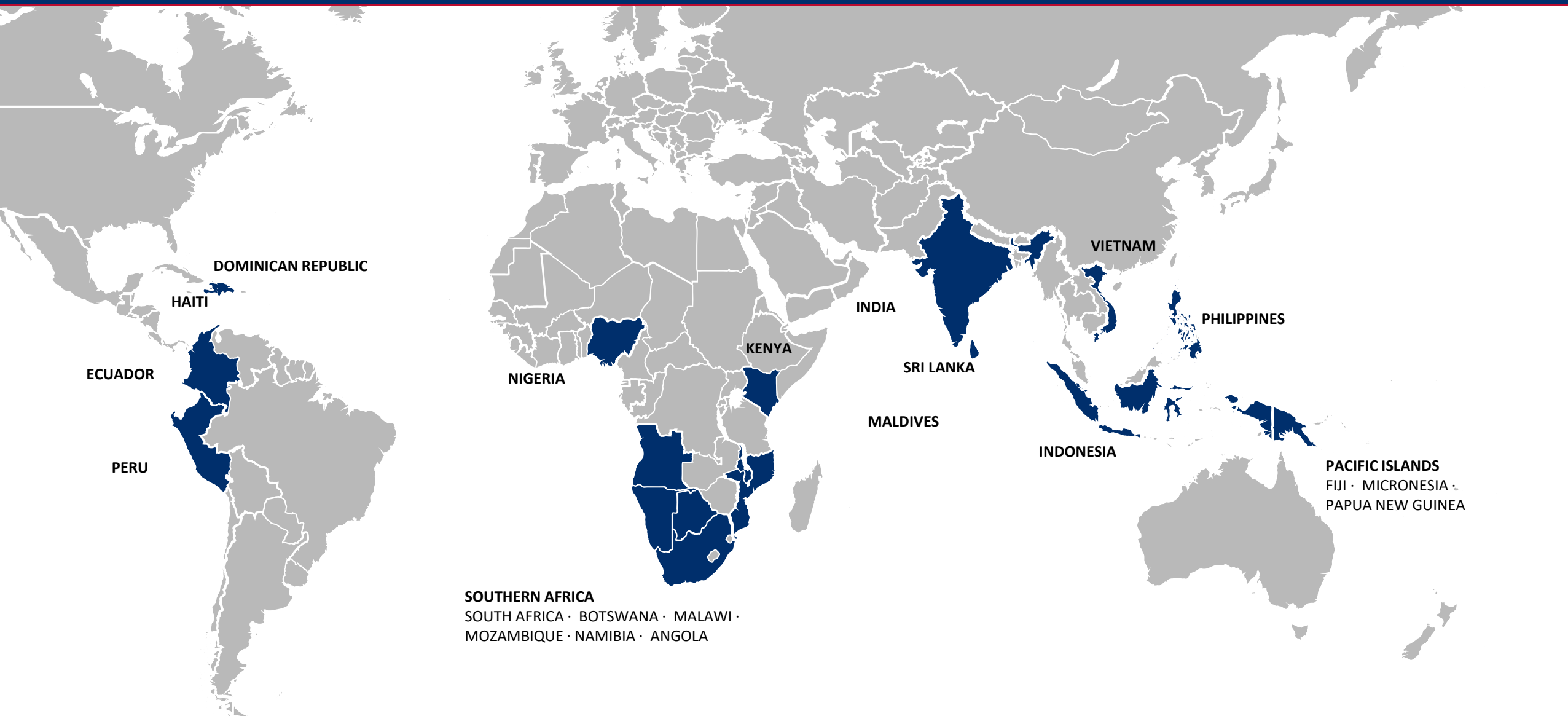
## **USAID's Clean Cities Blue Ocean**

Working to end plastic pollution  
while creating an inclusive circular economy

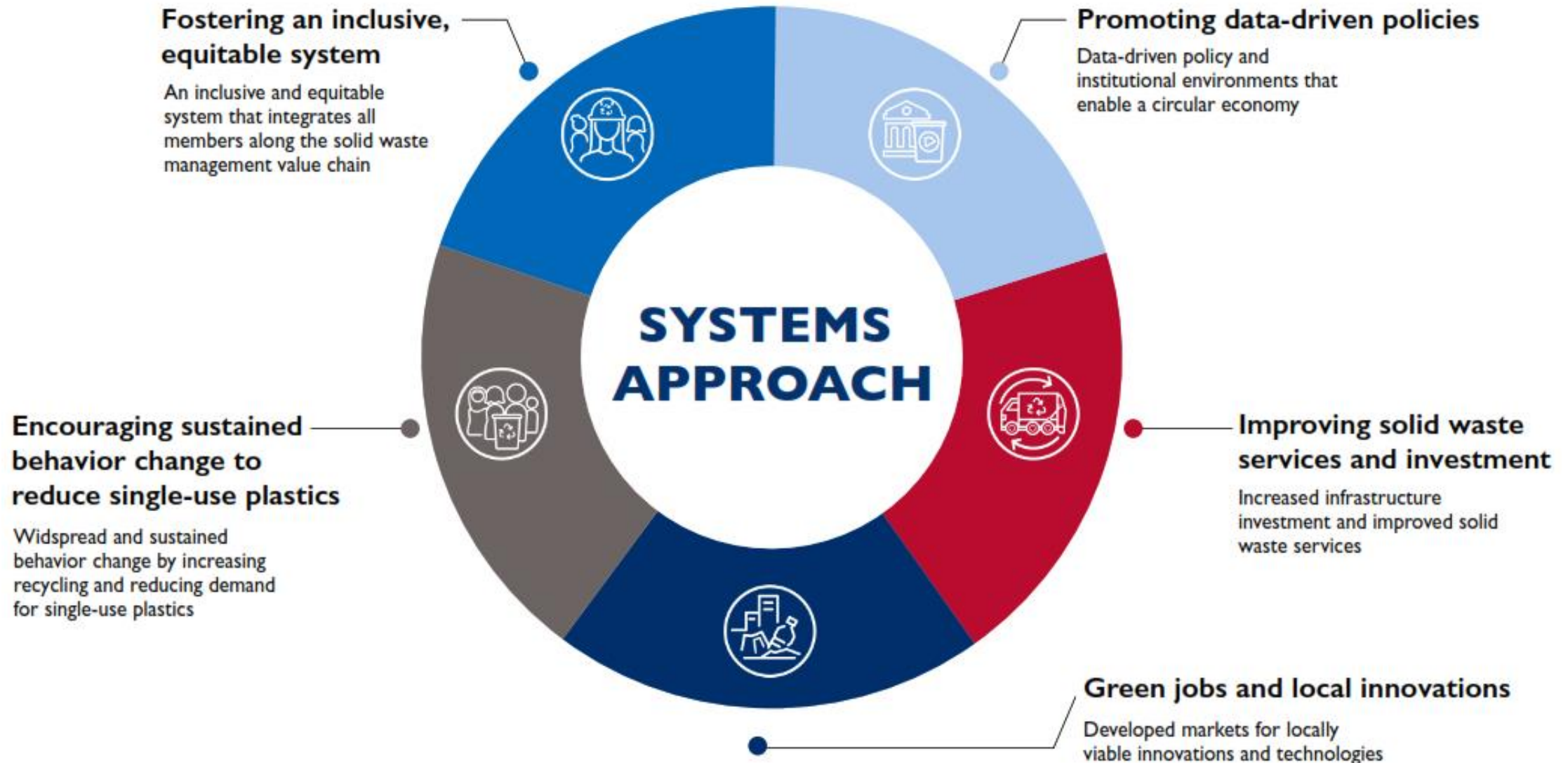
ASEAN Smart Cities Study Tour | October 2022

February 2023

# USAID's Ocean Plastics Programs Geographic Scope



# USAID's Local Systems Approach to a Circular Economy



# Engaging All Stakeholders

## ACTORS

national government

local government

non-governmental  
organizations

advocacy groups

hotels and  
hospitality

consumer brands

investors

universities

communities

producers

recycling businesses

schools

youth

women

waste  
managers

informal waste  
collectors

vulnerable populations







# USAID Clean Cities Blue Ocean

Ten (10) countries / 25+ cities

- Philippines, Indonesia, Vietnam, Sri Lanka, Maldives, Peru, Dominican Republic, Fiji, Micronesia, Papua New Guinea

Build local capacity and resources for circularity:

- Root cause analysis to develop targeted and actionable solutions
- Proof of concept models to increase investment in waste treatment and recovery
- Strengthening the enabling environment, including policies, tools, technologies, and behavior change



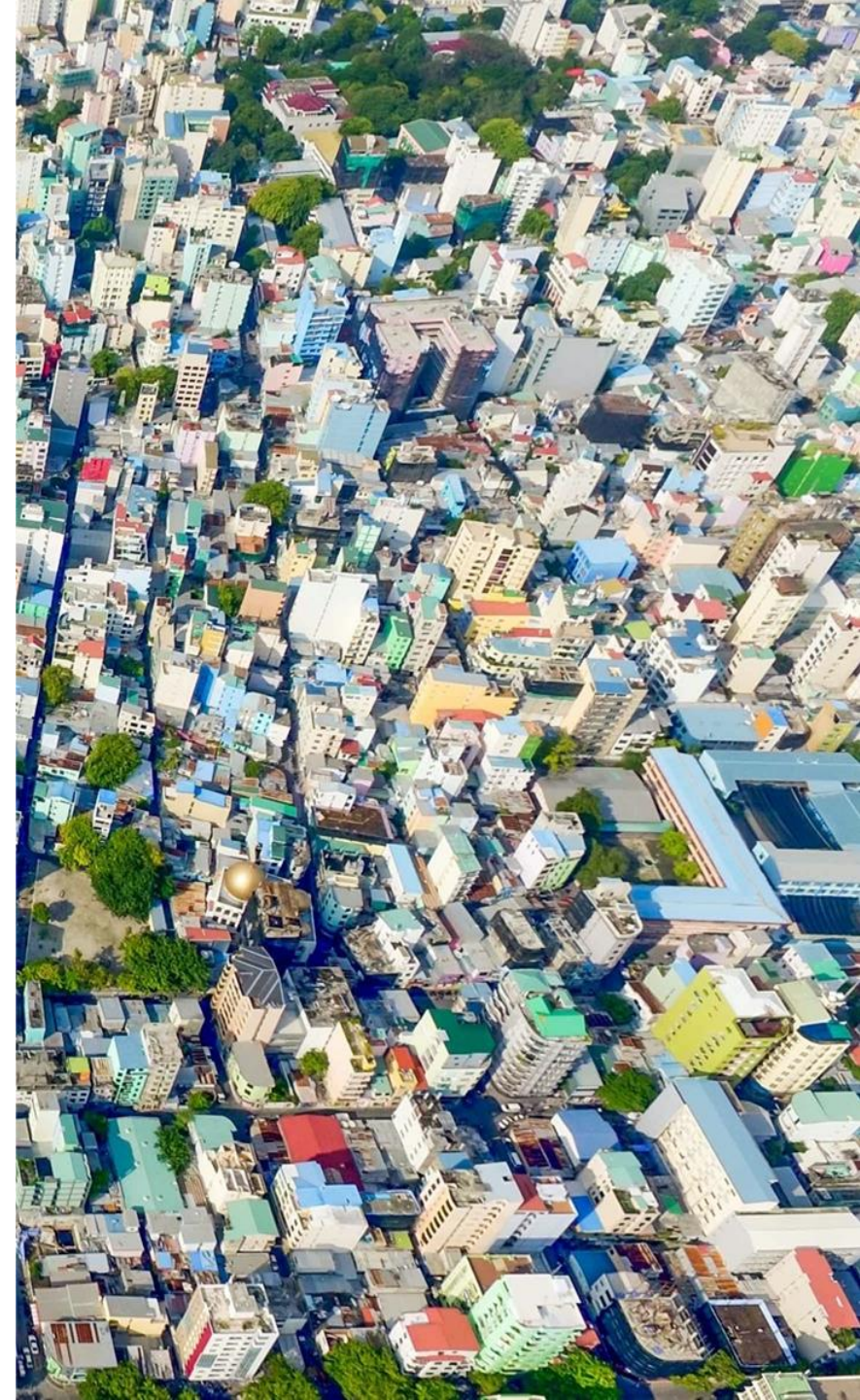
# Establishing the Foundation

*Building local government capacity to facilitate and sustain new systems*

**Solid Waste Capacity Index for Local Governments (SCIL)** is an assessment-based tool designed to determine local government capacity around six essential areas:

1. Planning
2. Policy and Legal Framework
3. Financial Management
4. Service Delivery
5. Human Resources
6. Community Engagement

*Combined with cost-of-service analysis and SWM planning, the process has already commenced in more than 17 cities*





# Solid Waste Infrastructure Management System (SWIMS)

The screenshot displays the CCBO Indonesia SWIMS web application. The browser tabs include 'Indonesia Map', 'CCBO Indonesia SWIMS', 'RAFT Indonesia - Data', and 'SIPSN - Sistem Informasi Pengel...'. The address bar shows the URL: <https://ttard-ccbo.maps.arcgis.com/apps/webappviewer/index.html?id=9c1320f017a844e8a95a39d65fd4a491>. The application header features the CCBO Indonesia SWIMS logo and the text 'with USAID CCBO SWIMS'. The main map area shows a satellite view of Indonesia with various cities labeled. A popup window titled 'Rapid Appraisal Facility Tool (RAFT)' is open, displaying data for Kota Ambon. The popup includes fields for City, Country, Survey, Population, Active Dump Sites, Active Recycling Facilities, and a checkbox for Solid Waste Management Plan. A 'Layer List' panel on the right shows the active layers: Jurisdiction, RAFT Indonesia, Recycling Facility, and Disposal Facility. A list of features is displayed on the right side of the screen.

**CCBO Indonesia SWIMS** with USAID CCBO SWIMS

Find address or place

**Layer List**

**Layers**

- ☒ Jurisdiction
- ☒ RAFT Indonesia
- ☒ Recycling Facility
- ☒ Disposal Facility

**Rapid Appraisal Facility Tool (RAFT)**

City, Municipality or Jurisdiction Name:	Kota Ambon
Country Name:	Indonesia
Survey Being Completed For:	Jurisdiction
Country Population:	275,000,000
City, Municipality or Jurisdiction Population:	347,300
Number of Active Dump Sites:	1
Number of Active "Recycling" Processing Facilities:	18
Does the City Have A Solid Waste Management Plan:	No

[Zoom to](#)

- Map Centric
- Smart Forms
- Offline Data Collection
- Real-Time
- Statistics
- Dashboards
- Story Maps



# Rapid Appraisal Facility Tool

*Assesses infrastructure to inform solid waste management planning*

A smart form,  
geodatabase,  
mapping tool



**Rapid Appraisal Facility Tool**

**Disposal Facilities (Landfills and Open Dumps)**

▼ **Facility Information**

**Facility Name:**  **Facility Address:**

**Type of Facility:**  
(Select from List)

- ☐ Sanitary Landfill
- ☐ Controlled Dump
- ☐ Open Dump
- ☐ Other

**Facility Ownership:**  
(Check One)

- ☐ Municipality/Local Government
- ☐ Private
- ☐ Combination Public/Private
- ☐ Other
- ☐ Unknown

**Does the Facility Have Water, Sewer and/or Power:**  
(Check All That Apply)

- ☐ Water
- ☐ Sewer
- ☐ Power
- ☐ Septic Tank

**Days of Operation:**  
(Check All That Apply)

<input type="checkbox"/> Monday	<input type="checkbox"/> Tuesday
<input type="checkbox"/> Wednesday	<input type="checkbox"/> Thursday
<input type="checkbox"/> Friday	<input type="checkbox"/> Saturday
<input type="checkbox"/> Sunday	

▼ **Hours of Operation:**

▼ **Staff Information**

<b>Total Number of Full-Time Staff:</b>	<b>How many full-time staff are women:</b>	<b>Total Number of Part-Time Staff:</b>
<input type="text"/>	<input type="text"/>	<input type="text"/>

▼ **Equipment**

**Is There an Entrance Gate and Fence:**

- ☐ Yes
- ☐ No

**Is There a Weighbridge or Scale-House:**

- ☐ Yes
- ☐ No

**Is There a Gate Attendant on Duty During Operating Hours:**

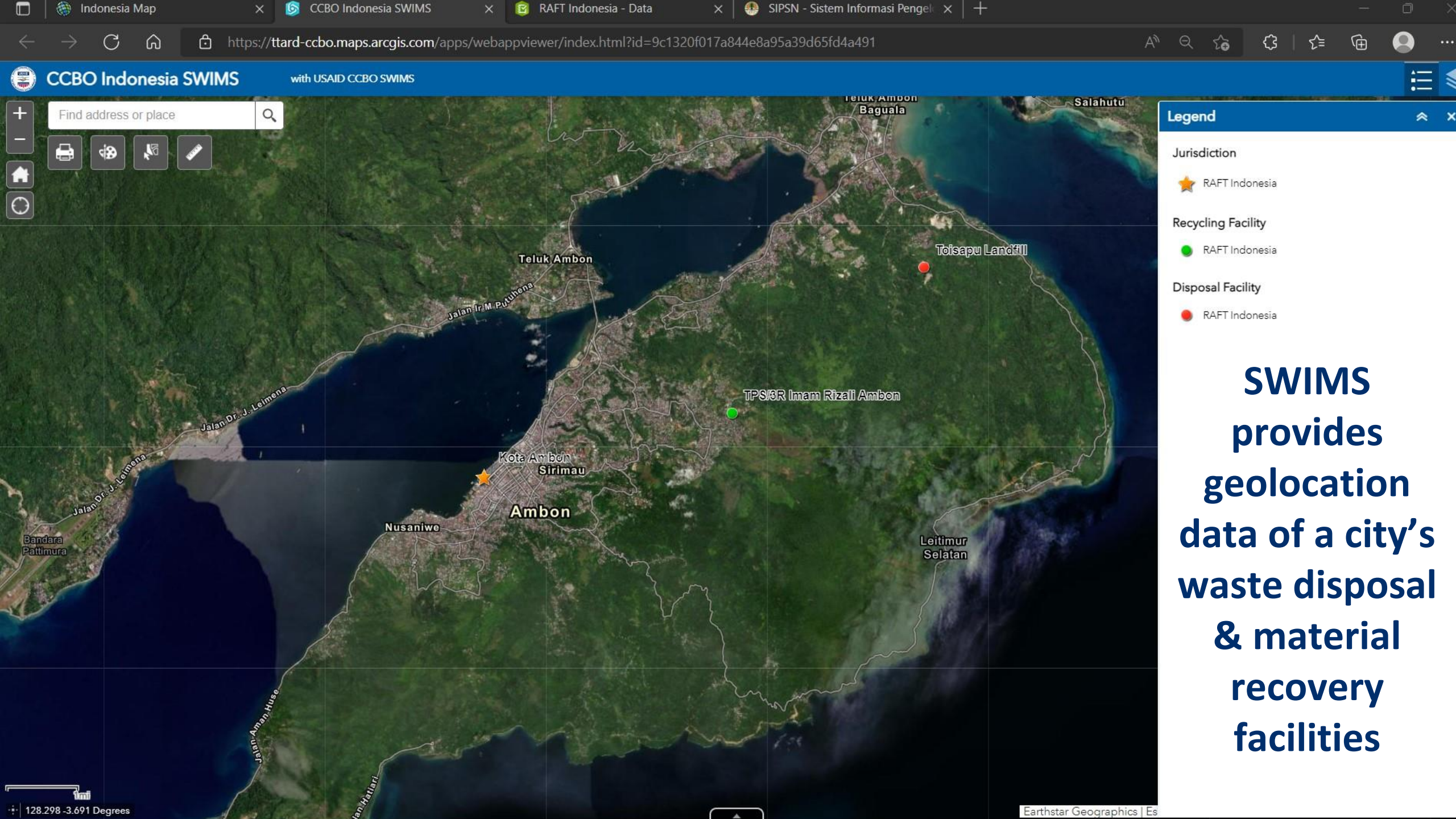
- ☐ Yes
- ☐ No

**What Type of Heavy Equipment Is Being Used at the Site:**  
(Check All That Apply)

<input type="checkbox"/> Dozers	<input type="checkbox"/> Skip Loaders
<input type="checkbox"/> Pick-up Trucks	<input type="checkbox"/> Compactors
<input type="checkbox"/> Dump Trucks	<input type="checkbox"/> Back Hoes
<input type="checkbox"/> Road Graders	<input type="checkbox"/> Grapple Loader
<input type="checkbox"/> Bucket Loader	<input type="checkbox"/> Other

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# Sample of Data Collected from Materials Recovery Facility

Primary data collected via:

- Interview manager/workers
- Observations / Visual evidence

Documents:

- ☐ Location & Size
- ☐ Equipment type & condition
- ☐ Workers (informal, women)
- ☐ PPE available
- ☐ Materials accepted
- ☐ Rates charged
- ☐ Conditions (e.g. animals on site)

<b>SITE NAME:</b>		TPS/3R Imam Rizali Ambon
<b>Site Photo</b>		<b>Facility Location Map</b>
		

General Information	
Facility Name:	TPS/3R Imam Rizali Ambon
Facility Address:	Jl. Ust Harmin Mursalin SHI, Batu Merah, Kec. Sirimau, Kota Ambon
Type of Facility:	Small Recycling Facility, Separate Organics Facility, Combined Recycling & Organics Facility, TPS/3R (Indonesia Only)
Facility Ownership:	Municipality/Local Government
Days of Operation:	Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday
Estimated Number of Households Served:	80 households
Is there a Weighbridge and Scale House on Site:	No
Estimated (or True) Size of Plot (List Feet or Meters)	1,200 Square Meters
Approximate Size of Sorting Area:	200 m <sup>2</sup>
How Long Has Facility Been Operating:	4 years
Utilities on Site:	Water, Power, Septic Tank
Number of Total Full Time Staff:	Two (2)
Number of Women Full Time Staff:	None
Materials Accepted:	# 1PET, #2 HDPE, #3 PVC, #4 LDPE, #5 PP, Aluminum Cans, Cardboard, Paper, Yard Waste
Where is Residue (Trash) Sent for Processing:	Toisapu Landfill
What Rates are Charged to Unload:	None
What On-Site Equipment is Available:	Scale, Bag Shredder
What Condition is the Equipment In:	Good
Sorting Line/ Conveyor Belt System in Place:	No
What PPE is Available to Staff:	Gloves, Shoes
Feedstock Origin (For Biodegradables Only)	
Mixed Waste Sorted with Onsite Separation:	Yes



# Marine Litter Audit

*A smart form, geodatabase,  
mapping tool*



Beach in Las Terrenas, Dominican Republic, July 2022







## Marine Litter Field Form

- For collecting primary data on litter found in beach areas, waterways, streets, roadways, parks
- With little training, can be used by local government staff
- Ensures that data collected are standardized and mapped to identify hotspots
- Creates statistically credible data with a simple survey that measures the rate, extent and composition of litter observed








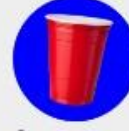

Marine Litter Field Form

Tally Sheet

▼ Beverage Containers

	All Other Beverage Containers:		Glass Beverage Containers:		Metal Beverage Containers:
—	0 ⊗ +	—	0 ⊗ +	—	0 ⊗ +
	Plastic Beverage Containers:				
—	0 ⊗ +				

▼ Take Out Food Packaging

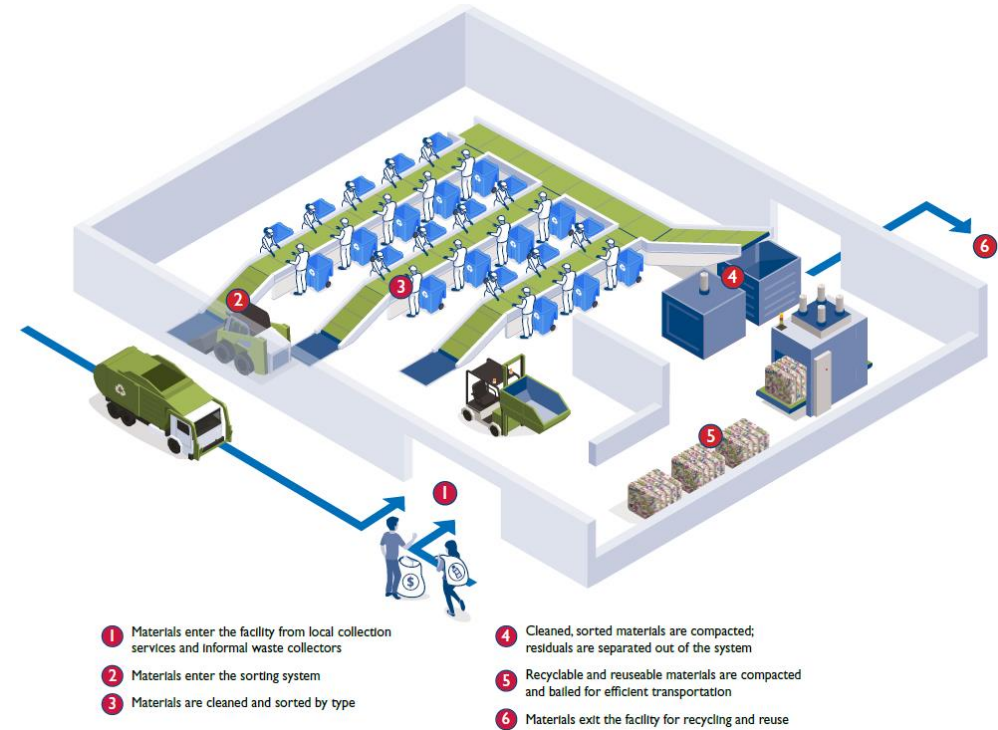
	Burger Wrappers:		Cup Lids: (with and w/o straws)		Napkins:
—	0 ⊗ +	—	0 ⊗ +	—	0 ⊗ +
	Paper Cups:		Paper Fast Food Bags:		Paper French Fries Packaging:
—	0 ⊗ +	—	0 ⊗ +	—	0 ⊗ +
	Plastic Drink Cups:		Polystyrene Cups:		Straws/ Wrappers: (not in lids)
—	0 ⊗ +	—	0 ⊗ +	—	0 ⊗ +

2 of 3

# Building Basic Infrastructure for Sorting and Aggregation in Parañaque City, Metro Manila

A holistic approach:

- After SCIL, supporting data-driven Solid Waste Management Planning, cost-of-service analysis
- Right-sizing and strengthening recycling infrastructure through improvements to an *existing* Material Recovery Facility that will *increase output and create local jobs*
- Working with public and private sources for feedstock and offtake agreements







## Improving solid waste services through more efficient collection and routing

- **Optimizing collection routes in *Pisco, Peru***
  - *Analyzing collection routes and identifying redundancies*
  - *Updating automated mapping tools and repairing vehicles*
  - *Efficient routing creates capacity for preventive maintenance*
- **Improving health, safety and efficiencies for waste collectors in *Puerto Princesa, Philippines***
  - *Providing basic tools and resources, uniforms and equipment to increase effectiveness, efficiency and community pride*





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**[urban-links.org/ccbo](https://urban-links.org/ccbo)**  
Online trainings at  
**[bit.ly/ccbohub](https://bit.ly/ccbohub)**

**Clare Romanik**

USAID, Lead Ocean Plastics and Urban Advisor  
[cromanik@usaid.gov](mailto:cromanik@usaid.gov)



# Open Dump Mitigation

## Securing Waste in Las Terrenas (Samaná Province), Dominican Republic



January 2020



- To date, we have secured 47,000 tons of plastic and 360,000 tons of MSW from leaking into the environment
- Mitigated critical environmental impacts in marine biodiversity hotspots, known for tourism and addresses food security
- Reduced plastic leakage, odors and eliminated open burning issues immediately



January 2022



- Built transfer stations on closed sites and transitioning informal sector to safer working conditions
- A regional sanitary landfill is currently being developed to take the place of the open dumps and will serve as the National model for solid waste disposal



July 2022