Using the *Solid Waste Management Toolkit* to Address Plastic Waste in Your Community

A Webinar for ISWA Members September 5, 2023

Three audio options:

- 1. Listen via computer
- 2. Use the "Call Me" feature
- 3. Dial 1-415-655-0002 or 1-855-797-9485; Event Number: 2436 051 8661

Presented by the U.S. Environmental Protection Agency (EPA) in partnership with the International Solid Waste Association (ISWA)









Webinar Panels

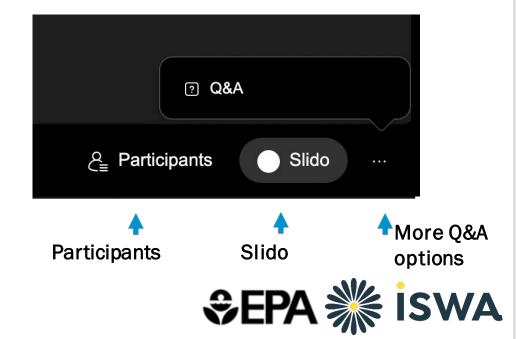
We'll use three panels

- Participants, Slido, and Question & Answer (Q&A)
- Use the arrow to expand or collapse the panels

Adding Panels

- If some panels don't appear, hover over the bottom of the screen and select the desired panels
- Select More Options (...) for additional panels
- Highlighted backgrounds indicate active panels



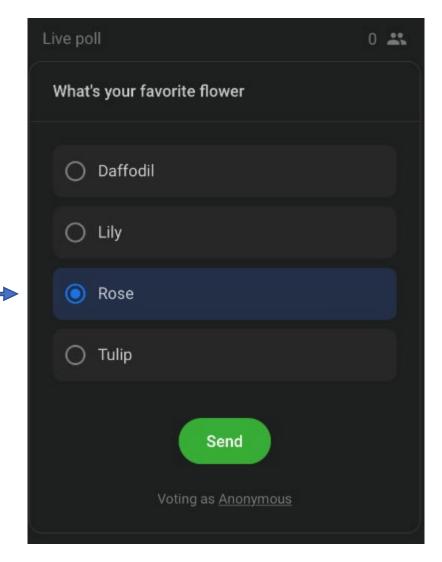




Polling using Slido

Polling

- We'll ask several poll questions during the webinar
- The Slido panel will appear when we open the first poll
- Select your desired response and hit "Send"







Q&A Panel

- Participants are muted
- There will be a moderated discussion at the end
- To ask a question:
 - 1. Select "All Panelists" from the drop-down menu
 - 2. Enter your question in the Q&A box
 - 3. Hit "Enter"
- EPA will post final materials on the Webinar Series page: <u>The Solid Waste Management</u> <u>Toolkit for Developing Countries | US EPA</u>

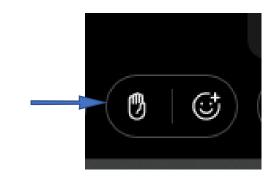


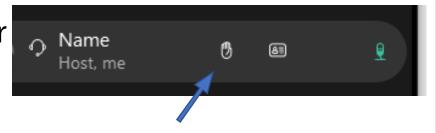




Q&A/Discussion

- At the end of the webinar, there will be a moderated discussion.
- To speak during the discussion, we will use the "raise hand" feature.
- To raise your hand:
 - 1. Click the "hand" on the bottom of the screen, or
 - 2. Click the "hand" next to your name under the participants panel
- We will call your name and unmute you when it is your turn to speak.
- After you speak, click the "hand" again to put your hand down.









Bios

Carlos RV Silva Filho, ISWA President

- Attorney at Law specialized in Administrative, Governance and Economic Regulation
- Member of the United Nations (UN) Secretary General Advisory Board on Zero Waste
- Member of the Steering Committee for the Global Waste Management Outlook and for the Latin America and Caribbean Regional Waste Outlook, developed by UN Environment
- Member of the Steering Committee of the Coalition for the progressive Closure of Dumpsites in Latin America and the Caribbean, coordinated by UN Environment Regional Office
- Coordinator of the Brazilian National Solid Waste Plan Planares 2022
- General Coordinator and implementer of several projects related to waste management, waste strategies, regulation, public-private partnerships and marine litter.
- Author of the book "Solid Waste: what the law says" and "Solid Waste Framework in Brazil", co-editor of the book "Effective Waste Management and Circular Economy".







About ISWA

ISWA is the world's leading network promoting professional and sustainable waste- and resource management.

ISWA represents all aspects and stakeholders within the waste management sector: the public, the private and the academic.

With more than 1,300 Members in 109 countries, ISWA has a unique global network.

To Promote and Develop
Sustainable and
Professional Waste
Management Worldwide
and the transition to a
Circular Economy

- Our mission

ISWA is a global waste management network that works together for a cleaner, healthier and sustainable planet.





What's happening at the global level?

Global outreach through members

- ► Report 'the future of waste management'
- ISWA's Position Paper on Plastics Pollution, presented at UNEA 5.2 Key messages for the first INC meeting + written submission INC-2
- Declaration on Climate Change, endorsed by our National Members
- ► Hosting the 1st Waste And Resources Pavilion at COP28

INC process

- ► Establishing internal ISWA Task Force on Plastic Pollution
- ▶ INC-1 presence Uruguay, INC-2 input, member activation
- ► Presence at INC-2 Paris, with a side event
- Submission to INC-3 Nairobi (Nov/23)

















Side event during INC-2 (Tentative Program)

Key elements from solid waste and water management perspectives to beat plastic pollution May 30th

Breakfast format: Welcome 7:30 am – event from 8 am to 10 am. Location: Rooftop Grenelle, 1 Quai Grenelle (outside of UNESCO)

8h00-8h05: Opening and Welcome

- Gilles KLEITZ Executive Director for Sustainable Development Solutions Agence Française de Développement (AFD)
- Carlos Silva Filho President of the International Solid Waste Association

8h05-8h15: Making the impacts of mis-managed plastic on water quality visible to decision makers.

- Barbara Pompili, Chair of the OECD Water Governance Initiative, Former French Minister for the Environmental Transition
- Pierre Hirtzberger, President of ASTEE

8h15-8h45 - Panel 1: Translating the necessity to reduce the volume of plastics into practice

Moderated by **Sabine Roux de Bézieux**, VP of the International Affairs commission of French Council on Environment, Social and Economic policies; Author of the <u>CESE report</u> preparing the plastic treaty negotiation

Opening remark by **HE Mariam bint Mohammed Saeed Hareb Almheiri**, UAE Minister of Climate Change (TBC)

Panelists:

- o Sophie Sicard, Sustainable Development deputy Director Paprec Group
- Norway delegate for INC2 (TBD)

8h45-9h15 - Panel 2: Success factors of a holistic waste managen "Reduce leakage"

Moderated by Corinne Trommsdorff, General Director of the French Solid Opening remark by **Jan Janssen**, Director of PROMAR (Marine Litter Preve Caribbean)

Panelists:

- o Alexandra Monteiro, AFD Technical Lead on Waste Management
- o Mr. Adalberto Maluf, National Secretary of Environment Brazil

9h15-9h20 Launch of the UNEP/ISWA Report

"Assessing the contribution of plastic credit schemes to reducing plastics pollution recycling" by:

- Carlos Silva Filho ISWA President
- UNEP representative (TBD)

9h20-9h50 - Panel 3: The need and complexity of initiating recyce while driving volume reduction

Moderated by Aditi Ramola, Technical Director of ISWA

Panelists:

- o Cecilie Lind, CEO Norwegian Retailer' Environment Fund
- o Jacob Rognhaug, VP Public Affairs System Design at TOMRA Syster
- o Representative from the French INC-2 Treaty negotiation delegation

9h50-9h55: Launch of the ISWA position paper

Nancy Strand, Senior Advisor at Avfall Norge, Lead of the ISWA Task Force pollution

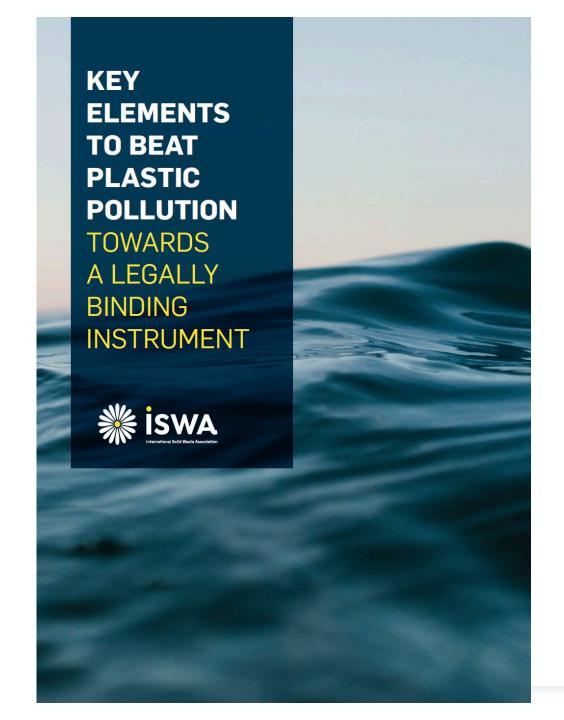
9h55-10h00: Closing remarks

 Gérard Wolf - Advisor to the Minister of Foreign Affairs on Integrated Sus Development (TBC)









I - REDUCTION



II - CIRCULARITY



III - SOUND WASTE MANAGEMENT AND LEAKAGE PREVENTION



IV - GOVERNANCE AND FUNDING



V - SUSTAINABLE COMMUNITIES





PRINCIPLES FOR THE PLASTIC TREATY



COLLABORATION

The exchange of experiences and cooperation will create opportunities to increase public, technical, and scientific knowledge, which will help to avoid deficiencies and unnecessary failures along value chains, as well as to increase resource efficiency and achieve the improvements that the treaty seeks.



INNOVATION, RESEARCH, AND DEVELOPMENT

Research, development, and innovation programs linked to product design, resource recovery, collection logistics, and finance are essential for overcoming barriers in circular economy and sustainable waste management.



AWARENESS RAISING

Awareness raising must focus on developing and implementing solutions that make up the entire value chain of plastics and are adaptable according to the local reality. The activities should work on creative, practical, playful, participatory, and collaborative solutions that use resources efficiently and involve different stakeholders from civil society, and the public and private sectors.



EQUITY

All treaty decisions should be implemented equitably, with a win-win arrangement and burden-sharing across sectors, geographical borders, and generations. They should be feasible and viable for all nations, with risk-based and plausibility approaches as core considerations.



Bios

Katie Linder, EPA Office of Resource Conservation and Recovery

- Coordinates development and outreach efforts for US EPA's Solid Waste Management Toolkit for Decision-Makers in Developing Countries.
- Additionally specializes in the implementation of the notice and consent process for US imports and exports of hazardous waste.
- Returned US Peace Corps Volunteer, Peru 2018-2020. Worked with municipal and local level officials to design and carry out education and employability programming for youth.
- Graduated from the University of California, Los Angeles in 2018 with a Bachelor of Arts in Political Science: concentration in International Relations.







What is your industry/ field of work?

- Municipal/ City employee
- State/ Regional employee
- Federal/ National employee
- Private waste facility/ Services operator or employee
- Academic/ Researcher
- Non-governmental organization
- Other

If other, please describe.

 [Submit your answer in the Slido textbox on the right side of your screen]





Poll

What country do you primarily work in?

• [submit your answer in the Slido textbox on the right side of your screen]

How familiar are you with how plastic waste is managed in your country/ region?

 Rate your current knowledge from 1-5 (1=no knowledge, 5 = expert knowledge).





What do you hope to learn from this webinar? Select all that apply.

- Plastic waste overview
- Useful resources
- Regional context
- Technical concepts
- Stakeholder engagement strategies
- Policy and regulatory concepts
- Economic and financing considerations
- Education strategies
- Approaches other ISWA members have taken

What key challenges are you facing in addressing plastic waste in your community or place of work? Select all the apply.

- Lack of regulations
- Insufficient infrastructure or solid waste management (SWM) systems
- Funding shortages
- Limited enforcement of regulations
- Need for partnerships or stakeholder participation
- Insufficient local knowledge or understanding





WEBINAR OVERVIEW



Agenda

- Learning Objectives
- The Solid Waste Management Toolkit Overview
- Understanding Plastic Waste
- Addressing Plastic Waste in Your Region Using the SWM Toolkit
- Facilitated Discussion







Learning Objectives

After this training, ISWA members should understand:

- The scope and topics of the Solid Waste Management Toolkit and how the Toolkit can be used to support the implementation of plastic-related projects
- The importance and challenges of addressing plastic waste
- How ISWA members can identify and overcome plastic waste challenges using Toolkit resources
- The challenges and successes of other ISWA members





THE SOLID WASTE MANAGEMENT TOOLKIT





Solid Waste Management Toolkit

- Best Practices for Solid Waste
 Management: A Guide for Decision Makers in Developing Countries (the Guide)
- Four Companion Chapters:
 - Addressing Plastic Waste
 - Equity in Solid Waste Management
 - Recycling Markets
 - Solid Waste Management and Climate Change
- Learning Modules
- Videos

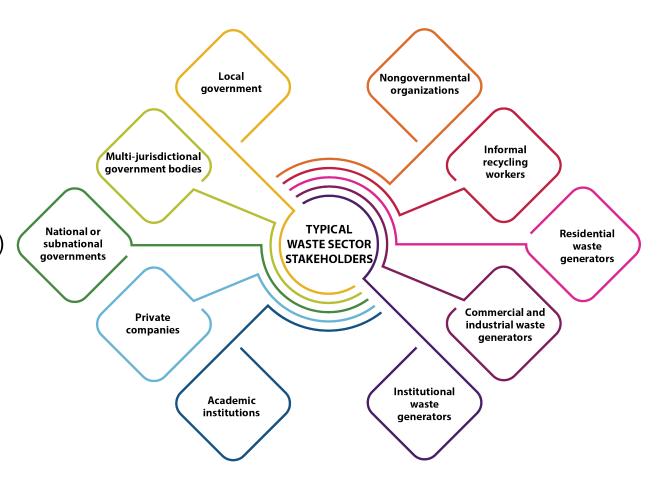






The Toolkit is Applicable to Many Audiences

- Designed for:
 - Decision-makers
 - Policymakers
 - Agency staff involved in waste management
- Applicable to:
 - Non-governmental organizations (NGOs)
 - Private sector
 - Civil society
- Encourages stakeholder engagement to gain support for waste management policies, programs, and services

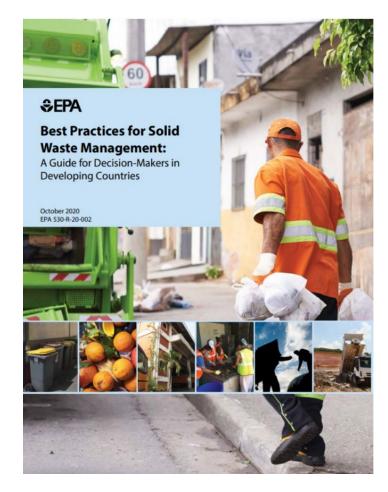






The Solid Waste Management Guide

- Best practices for solid waste management in medium and large urban centers in developing countries
- Includes sections on:
 - Stakeholder engagement
 - Separation, collection, and transportation
 - Organic waste management
 - Dumpsite management
 - And so much more!
- Available in Arabic, Bahasa Indonesian, English, French, Spanish, Thai, and Vietnamese







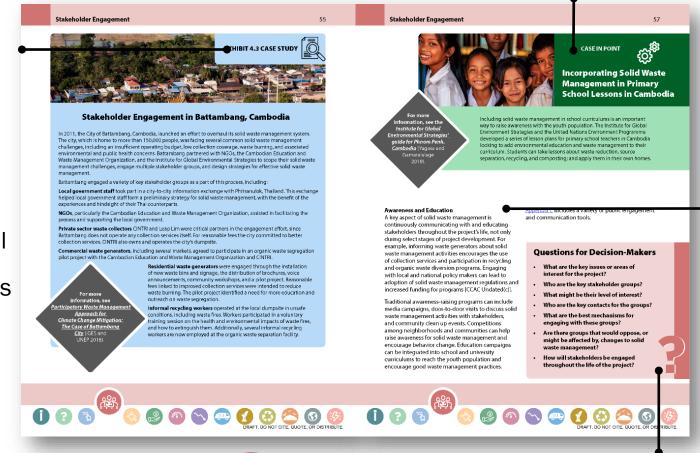
Guide Features

Case in points share brief examples of projects or activities from around the globe





Case studies detail descriptions of projects or activities from cities across the world



Best practices
highlight solid waste
management options
and benefits





Questions for decision-makers to consider when evaluating options for improving solid waste managemer





Learning Modules and Videos

- Designed to complement the Toolkit
- Mobile-friendly and usable with lower bandwidth
- Discusses and includes links to case studies and specific chapters within the Guide
- Allows users to learn at their own pace
- Available in English, Spanish, French and Arabic

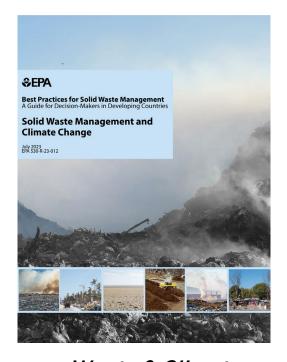








Companion Chapters



Waste & Climate



Waste & Equity



Plastic Waste



Recycling Markets





UNDERSTANDING PLASTIC WASTE



Why Address Plastic Waste?

- 400 million tons of plastic waste are produced each year¹
- Only 15% of plastic products were collected for recycling in 2019²
- Plastic consumption and waste expected to **triple** by 2060
- Plastic leakage into the environment expected to double by 2060
- Use of new, virgin materials accounts for:
 - 50% of all global greenhouse gas emissions
 - 90% of biodiversity loss and water stress³







What are the Impacts of Plastic Waste?

- Environmental Impacts
 - Threats to marine life
 - Greenhouse gas emissions
- Human Health Impacts
 - Exposure to microplastics
 - Exposure to chemical additives
 - Spread of infectious diseases
 - Exposure to air pollution from waste burning
- Socioeconomic Impacts
 - \$1,500 USD (US dollar) billion in ocean damage
 - \$695 billion in emissions
 - \$25 billion in land pollutants









Opportunities From Addressing Plastic Waste

Reuse and recycling can:

- Promote a circular economy
- Reduce environmental and human health impacts
- Mitigate the effects of emissions associated with virgin plastics manufacturing
- Support economic development by increasing green jobs, wages, and tax revenue for cities¹







ADDRESSING PLASTIC WASTE IN YOUR REGION USING THE SWM TOOLKIT



Poll

- What plastic waste issues are you aware of in your region or community?
 - [submit your answer in the Slido textbox on the right side of your screen]





What stakeholders in your region are currently engaged with this topic? Select

Local government

all that apply.

- Multi-jurisdictional government bodies
- National or subnational governments
- Private companies
- Academic institutions
- Institutional waste generators
- Commercial and industrial waste generators
- Residential waste generators
- Informal recycling workers
- Non-governmental organizations
- Educators

Which stakeholders are 'missing' in your region that are needed to fully address plastic waste? Select all that apply.

- Local government
- Multi-jurisdictional government bodies
- National or subnational governments
- Private companies
- Academic institutions
- Institutional waste generators
- Commercial and industrial waste generators
- Residential waste generators
- Informal recycling workers
- Non-governmental organizations
- Educators







Key Steps in Planning to Address Plastic Waste

- 1. Assess the state of resources in a community or region
- 2. Identify needs in a community or region
- 3. Set goals and objectives
- 4. Evaluate options
- 5. Recommend a project or strategy
- 6. Develop an implementation strategy
- 7. Secure funding for implementation
- 8. Launch project
- 9. Monitor, evaluate, and adapt

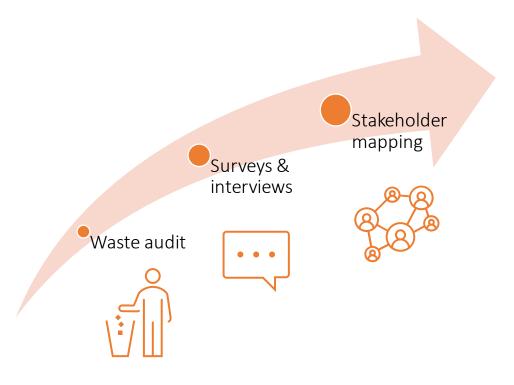






1. Assess the Current Plastic Waste Landscape

- Baseline data gathering
 - Waste audit
 - Brand audit
- Surveys & interviews
 - Residents
 - Waste generators
- Stakeholder mapping
 - Influential or affected groups

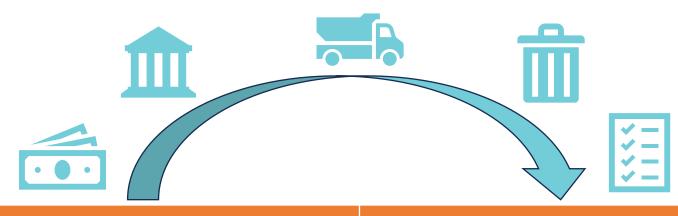








2. Identify What is Needed to Address Plastic Waste



Challenge	Solution(s)
High cost of collecting, sorting, and processing of plastic waste	 Public education on material contamination Link informal waste sector workers with formal waste collection systems Landfill bans Extended producer responsibility





3. Set Goals and Objectives

S.M.A.R.T Goals are:

- Specific
- Measurable
- Attainable
- Relevant
- Timely

Challenge: Poor data on plastic waste

S.M.A.R.T Goal: Improve our understanding of plastic waste by increasing data quantity and quality on the subject. Over the next 2 years, we will:

- 1) Collect 10 waste samples a year from each city neighborhood and analyze them for waste amount, material type, and degree of separation
- 2) Share the data collected each year with stakeholders and the public
- 3) Integrate data into SWM decision making to inform recycling targets, program strategy, and measures of success







4. Evaluate Options for Plastic Waste Projects

- Many cities find that a combination of strategies is most beneficial, including:
 - A. Policy and regulatory action
 - B. Behavioral change and educational campaigns
 - C. Multi-stakeholder partnerships
 - D. Technology and infrastructure









4A. Regulation and Policy

Challenges

- Lack of enforcement
- Lack of infrastructure
- Timing
- Economic factors
- Unintended consequences

Best Practices & Solutions

Product Bans

Recycling Laws and Incentives

- Pay-as-you-throw (PAYT)
- Landfill bans
- Deposit-refund schemes

Extended Producer Responsibility

- Taxes
- Recycled content standards







4B. Behavior Change and Educational Campaigns

Challenges

- Limited understanding or knowledge
- Inability to change habits due to lack of accessible alternatives



Best Practices & Solutions

- Influencing social or cultural norms
- Increasing education in schools
- Targeted media initiatives
- Enhancing tourism branding
- Increasing data collection







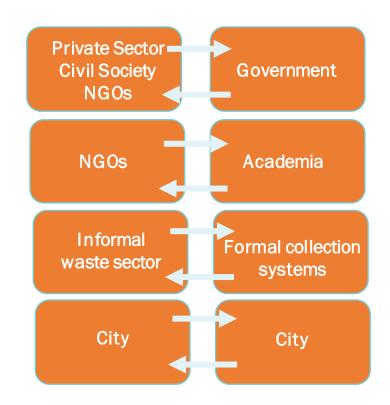
4C. Partnerships

Challenges

- Identifying the right partner organization
- Limited financial resources
- Lack of enforcement of certain agreements
- Lack of connectedness between partners

Best Practices & Solutions

Identify key common partnerships:









4D. Technology and Infrastructure Investments

Challenges

- Technology and infrastructure alone cannot be the single solution
- Requires additional workers with advanced technical training
- Specific technology required to recycle certain plastic resins
- Lack of infrastructure
- Lack of access to roads and trucks to transport
- Lack of funding

Best Practices & Solutions

- Increase access
- Offer plastic alternatives
- Address microplastics
- Detect and manage marine plastic pollution









5 & 6. Recommend and Strategize a Project

- Step 5. Recommend a plastic waste project
 - Stakeholders can use the S.M.A.R.T goals evaluation to select projects
 - EPA's SWM hierarchy may help inform decision making

- Step 6. Develop an implementation strategy
 - A strategy includes identifying specific actions, responsible stakeholders, and a timeline

Challenge	Solutions
High consumption of single use plastic	Campaigns to influence social norms and behaviors
	Partnerships with companies (e.g., shift from plastic to paper straws)
	Develop alternative materials

Partners	Actions	Timeline
Government	Develop educational materials and media initiatives	6 months
Civil society, educators	Disseminate educational materials	3-6 months
Academia	Research impact of materials on attitudes and behaviors	1-2 years

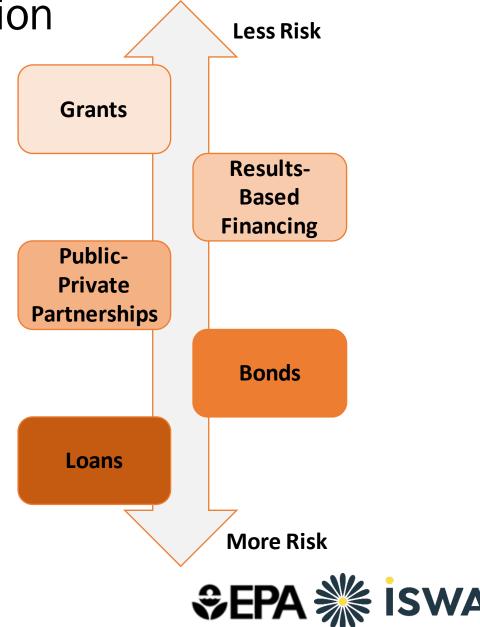






7. Secure funding for implementation

- Funding can present a significant barrier for implementing a plastic waste project
- Toolkit resources can help determine costs for implementation, assist with financial readiness, and offer suggestions on engaging with financial institutions
- Common financing instruments include:
 - Grants
 - Results-based financing
 - Public-Private partnerships
 - Bonds
 - Loans





8 & 9. Implement and Monitor and Evaluate a Project

- Step 8: Implement the project
 - Stakeholder engagement
 - Public, private, or shared



- Step 9: Monitor, evaluate, and adapt
 - Regular, predetermined checkpoints
 - Performance indicators
 - Based upon available or collected data
 - Transparent data sharing
 - Stakeholders, public
 - Demonstrate results
 - Awareness and support





FACILITATED DISCUSSION



Poll Questions Instructions

For each question:

- 1. Virtual WebEx survey
- 2. View the initial results in real-time
- 3. Discussion

Please wait to speak until the WebEx survey has been answered, and make sure to use the 'raise hand' feature.





Which of these overarching strategies have you had the most success with in addressing plastic waste in your region/community?

- Regulation and policy
- Behavior change and educational campaigns
- Partnerships
- Technology and Infrastructure





Of the following common challenges, which are the top 3 most challenging for your organization? Select 3.

- Weak strategic planning
- Lack of SWM systems and infrastructure
- High cost of collection and transportation
- Shortage of funding
- Legal constraints and limited enforcement
- Other

If other, please describe.

 [Submit your answer in the Slido textbox on the right side of your screen]





What educational resources or opportunities are needed/currently lacking? Select all that apply.

- Technical documents
- Policy documents
- Financing documents
- Case studies
- Data (general)
- Data (local or regional)
- Trainings
- Conferences or meetings
- Other

- If other, please describe.
 - [Submit your answer in the Slido textbox on the right side of your screen]





- Is your organization aware of the UN Global Plastics Treaty?
 - Yes/No
- How do you anticipate the UN Plastics Treaty will impact efforts to address plastic waste in your community/region?
 - [submit your answer in the Slido textbox on the right side of your screen]
- What do you need to implement the eventual actions of the UN Plastics Treaty? Select all that apply.
 - Technical documents
 - Data (general)
 - Data (local or regional)
 - Trainings
 - Consultations
 - Conferences or meetings





Please complete the following questions using the Slido textbox on your screen.





- I found this webinar helpful to my role as an ISWA member.
 - Strongly agree
 - Somewhat agree
 - Neither agree nor disagree
 - Somewhat disagree
 - Strongly disagree

- The learning objectives were met for this training.
 - Strongly agree
 - Somewhat agree
 - Neither agree nor disagree
 - Somewhat disagree
 - Strongly disagree





- I will use what I learned during this webinar.
 - Strongly agree
 - Somewhat agree
 - Neither agree nor disagree
 - Somewhat disagree
 - Strongly disagree

- I would be interested in participating in future topic-specific webinars.
 - Strongly agree
 - Somewhat agree
 - Neither agree nor disagree
 - Somewhat disagree
 - Strongly disagree





- What did you find most helpful during this webinar?
 - [Submit your answer in the Slido textbox on the right side of your screen]
- What did you find least helpful during this webinar?
 - [Submit your answer in the Slido textbox on the right side of your screen]





- What could we do to improve this webinar?
 - [Submit your answer in the Slido textbox on the right side of your screen]
- What did you learn from this webinar that you didn't know before? What topics did you expect to learn about but did not?
 - [Submit your answer in the Slido textbox on the right side of your screen]



