

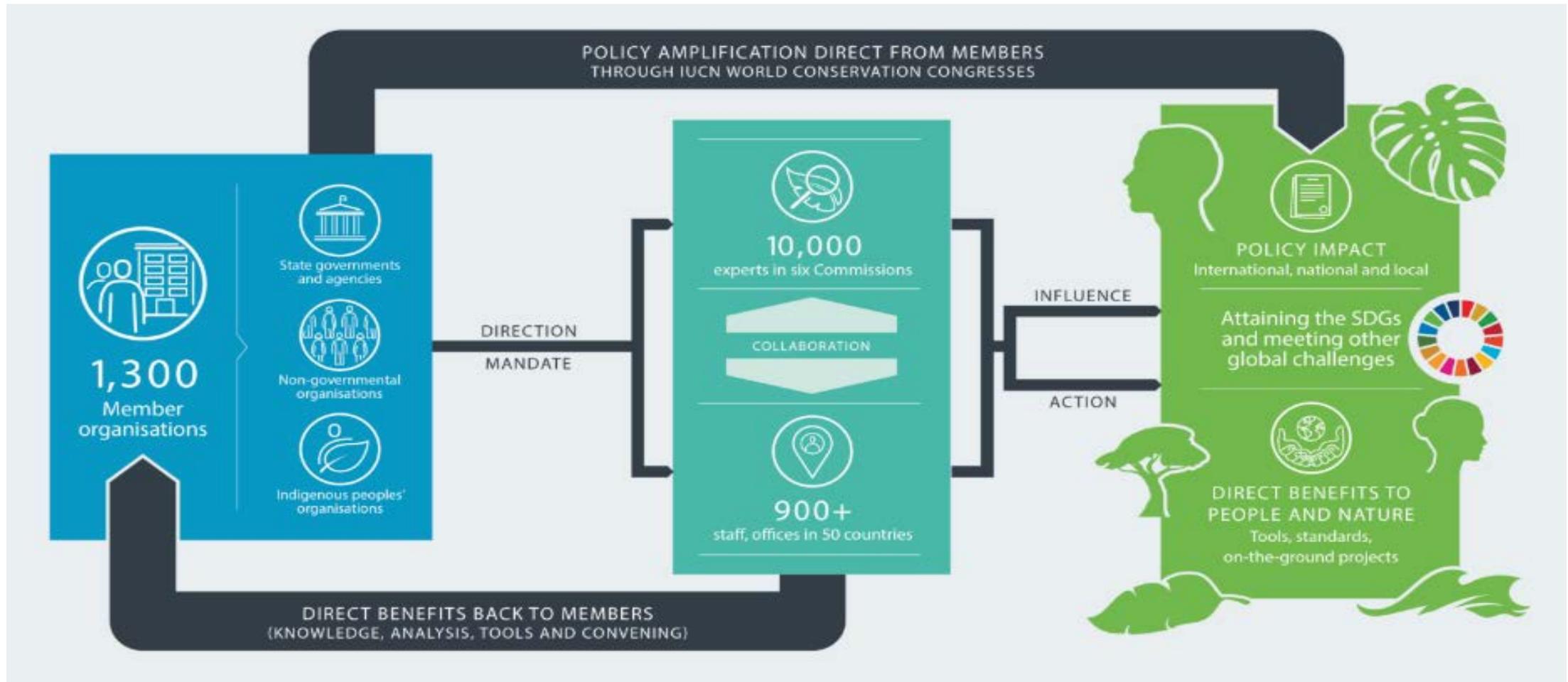
# Plastic Waste Pollution in Vietnam

## IUCN's Activities

October 4, 2019



# IUCN- The World's Largest Environmental Network



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# IUCN's Plastics Projects

## Current

- Plastic Waste Free Islands
- PlastiCoco
- Marine Plastics and Coastal Communities—**MARPLASTICCS**
- PlastiMed
- Baltic Solutions to Plastic Pollution
- Tackling Marine Plastics in Thailand: from Community-Based Actions to Policies
- PlastiMed BeMed: Closing the Plastic Tap
- Source to Sea— Solid Waste Flow



## Past

- Azores Project
- Odyssey Project
- Monaco Stakeholder Platform



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# MARPLATICCS Objectives

- Assist governments and regional bodies to strengthen, develop and implement legislation and other measures
- Equip governments, industry and civil society with tools, knowledge, capacity and policy options
- Ensure that the full life cycle of plastics is taken into consideration, not just the impacts of downstream marine litter



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# MARPLATICCS Pillars

## KNOWLEDGE

Support research and analysis on the issue of plastic pollution

## POLICY

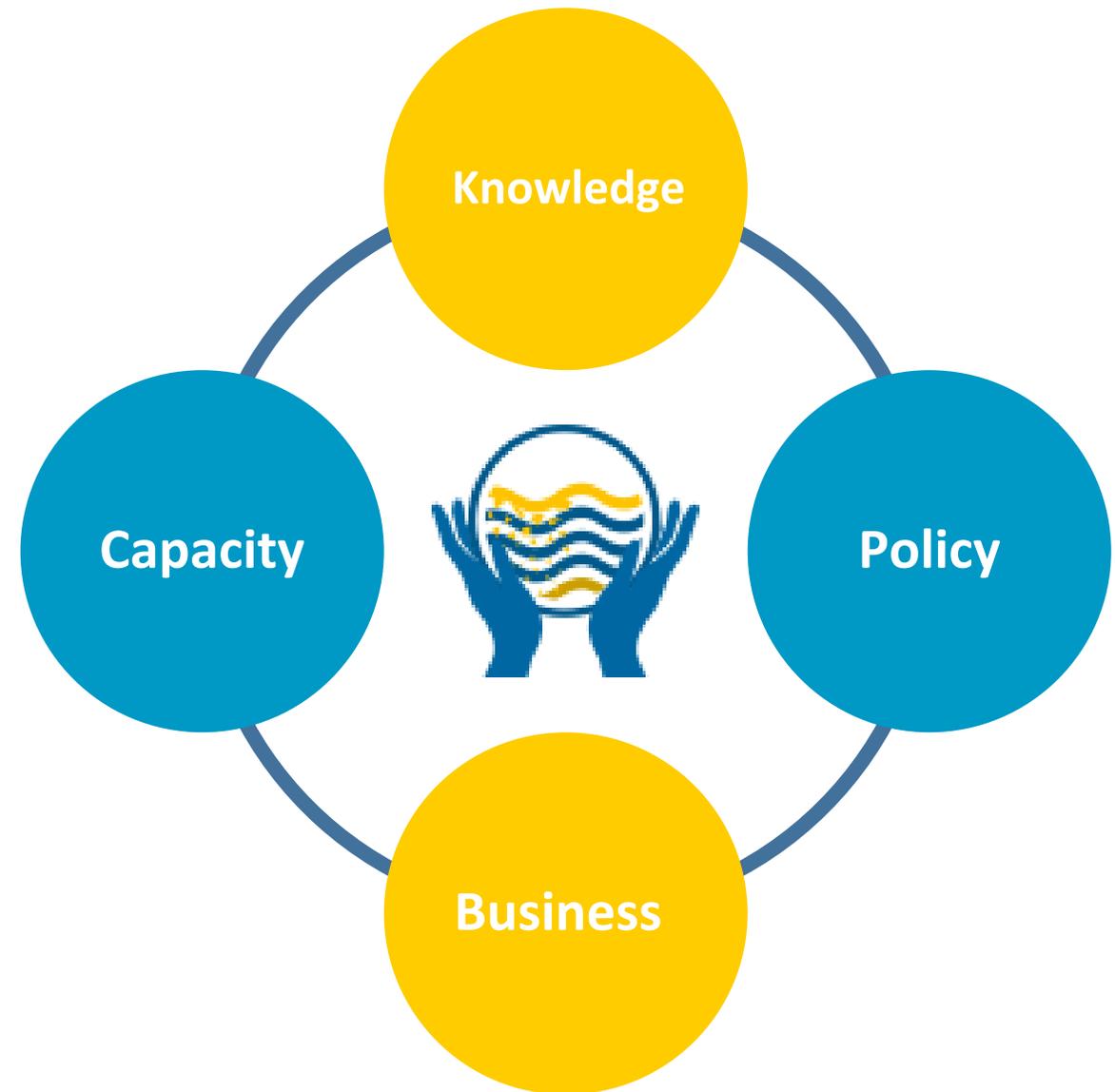
Assess the effectiveness and efficiency of existing legal and regulatory frameworks, define recommendations and legal solutions

## BUSINESS

Enable private sector platforms, support companies in assessing the plastic footprint of their value chains, and encourage market solutions and innovation

## CAPACITY BUILDING

Facilitate dialogue and encourage coordinated action



# Policy

## Creating and Supporting Frameworks for Reform

- ✓ Supporting policy and **legislative analysis** and reform
- ✓ Facilitating the development of national programmes, including **action plans** and green economy roadmaps



# Who are in charge of Solid Waste Management in Vietnam?



# Competence, Power and Function of the Agency in Charge of Solid Waste Management

## MOC

Municipal waste management; construction waste; decide the method for determining price of domestic solid waste treatment services (collection, transportation and treatment), the investment of domestic solid waste treatment facilities

## MARD

Waste management in agriculture productions and aquaculture, especially the pesticide containers after use; and solid waste management in rural areas

## MOH

Waste management in hospitals and medical facilities

## MOST

Management of radioactive waste and used radioactive sources; research on solid waste treatment technology; approval the treatment technology applied 1<sup>st</sup> time in Vietnam

## MOT

Management of ship-generated wastes in seaport waters

# Competence, Power and Function of the Agency in Charge of Solid Waste Management

## MONRE

Hazardous waste; imported scraps; environmental National technical regulations (QCVN); EIA environmental protection plan (simpler EIA report); Post EIA; Certificate of environmental management system.

## MPI

Provide guidelines for investment the facilities of waste management

## MOF

Provide guidelines for, balance and allocate capital of state budget and other sources to carry out the waste management investment.

## Provincial People's Committee

Organize the implementation of solid waste management in provinces.

## Other Ministries/ Departments

According to functions and missions assigned by the Government.

# Consequence for Marine Plastics Waste in Vietnam

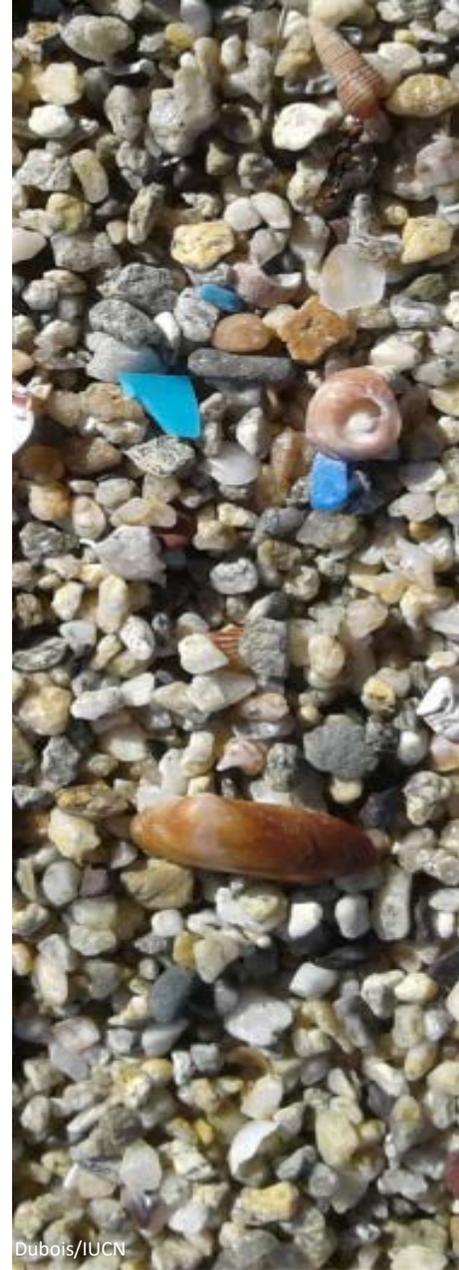
- Fragmented to number of competent authorities but none agency in charge.
- Assigned MONRE as focal agency to unify the state management of solid waste.
- VASI under MONRE is assigned for developing the National Action Plan on Plastic Debris Management
- The diversity and discretionary of legal regulations and agencies in charge made the challenges for its implementation and none agency take responsibility for pollution.



Knowledge

## Better Understanding the Status and Impact of Plastic Pollution

- ✓ Developing tools to **assess the plastic leaking** into the environment from source-to-sea
- ✓ Working with countries to co-generate credible, **salient and legitimate data and analysis to understand their current plastic leakage status**, set targets, agree and implement actions, and track progress towards targets over time



Dubois/IUCN



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# Where is the Data on Plastic Pollution in Vietnam?



- Today, **microplastic and macroplastic assessment are scarce in the region**. Most of the studies are conducted in high-income countries.
- **Asia is one of the least studied continents in term of microplastic contamination**, which is contradictory with recent estimations showing that Asian rivers introduce most of the worldwide continental plastic into the oceans (Lebreton et al., 2017).
- **Plastic waste mismanagement in Vietnam** (4th world ranked according to Jambeck et al., 2015) is a **critical issue** which has important environmental consequences.
- Let's explore the **unknown, to the benefits of both science and policy in Vietnam**.

# Solid Waste Management in Vietnam



1.

The rate of daily solid waste collection in cities is 85%, in rural areas 50-60%

3.

Many landfills are located right next to dykes, near surface water. Many places throw waste into rivers and canals

2.

Solid waste mainly buried (95%), at more than 500 landfill sites and thousands of small landfills, mostly open landfills

4.

Burning in public places, open burning or small incinerators, poorly treated (dust pollution, dioxin/furan....)



# Data on Beach Debris Monitoring – Citizen Science

(IUCN and GreenHub, 2019)

44 debris categories were collected from **132 transects (11 locations)** beaches in June to July 2019

Plastic items were the most numerous debris item (**92% of the total number – 61% in weight**) collected on the beaches during the survey period



# PLASTIC

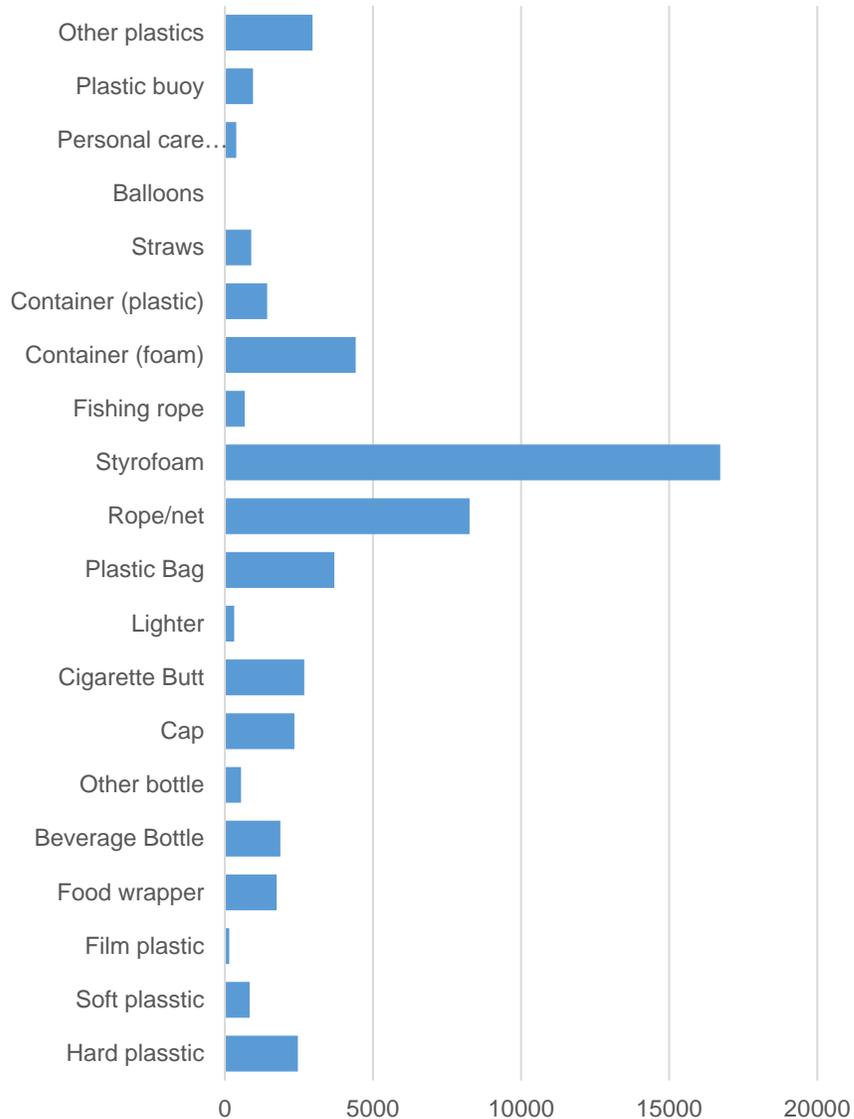
## Items (92%)

- **Styrofoam: 31.37%**
- **Fishing net - rope: 15.49%**
- **Container (foam): 8.28%**
- **Plastic bags: 6.93%**
- **Beverage bottle: 3.51%**

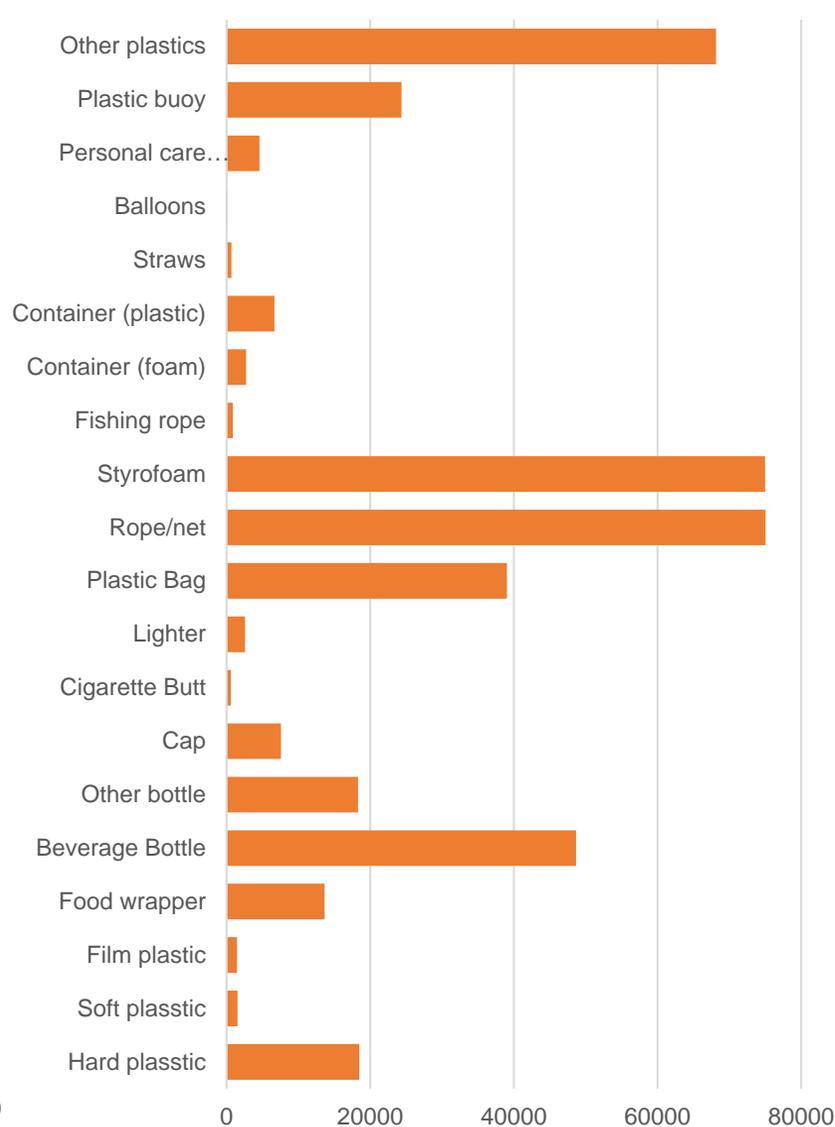
## Weight (61%)

- **Styrofoam: 18.29%**
- **Fishing net - rope: 18.31%**
- **Container (foam): 0.66%**
- **Plastic bag: 9.53%**
- **Beverage bottle: 11.87%**

Plastic number (count.100m<sup>-1</sup>)



Plastic weight (gram.100m<sup>-1</sup>)



Business

# Engaging and Mobilizing Business Actors

- ✓ Working with the private sector to develop a **plastic footprint methodology** measuring how much plastic is used, wasted and leaking into the environment along their value chain



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# Plastics Industry in Vietnam

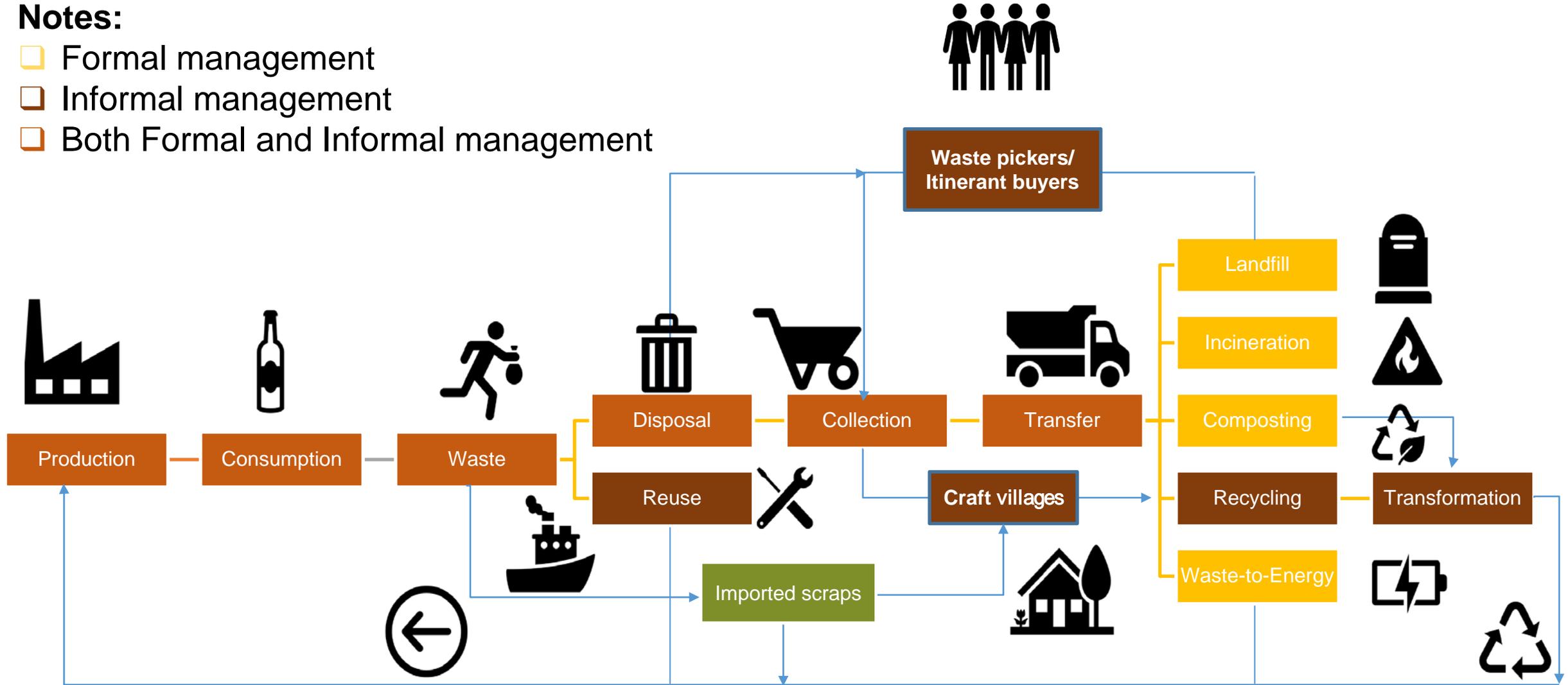
- In 2010-2015, growth of 16-18%/ year - the second highest growth industries in Vietnam; Revenue of \$15.6 billions in 2018 but **depend on 80% of imported raw materials**
- Top 4<sup>th</sup> ASEAN countries importing scrap plastics (on average of **91,400 tons/year** since 2013-2017)
- After China's ban on plastic scrap and waste imports, **Vietnam imported 274,700 tons scrap plastics in only the first 6 months of 2018**, double the amount of 2017
- Two of the country's biggest ports – Tan Cang-Cai Mep and Tan Cang-Cat Lai – are overwhelmed and have temporarily **stopped receiving all import laden containers of plastic scraps** from the middle of June until October, 2018



# A Chain of Plastics Waste in Vietnam

## Notes:

- Formal management
- Informal management
- Both Formal and Informal management



# Pilot Circular Economy Project: **ReForm Cham Island Landfill**

## Utilizing the Value of all Plastic Waste to Create Social Impact

- **Bringing low-grade, generally un-recycled**, plastics into a value chain of tradable and valuable end-products
- Utilizing low cost, low tech commodity machines
- Building on existing infrastructure and human capital
- **Serving the furniture, construction and agriculture industries**
- Focus on high value added products such as - Poles & Planks - Boards & Sheets - Tiles & Roofing
- Zero waste to landfill approach
- Paying fair trading prices & salaries



In Numbers: Waste composition in Cham Island: appx.

**70% organic**  
**20% plastic**  
**5% metal**  
**5% inert**



## Capacity

# Support National Action to Control Plastic Pollution

- ✓ Bringing together key stakeholders to promote circular economy actions, share best practices, and stimulate and leverage national action to address plastic pollution



# STRENGTHS

- Waste management is one of seven **priority programs** of the National Strategy for Environmental Protection
- The National Strategy on Integrated Solid Waste Management sets ambitious targets and provides for **charging sanitary fees from waste generators**
- Provision of **financial support for environmental protection activities** (including 3R activities) through the Vietnam Environment Protection Fund (VEPF)
- Opportunity **to attract more private investments** and increase the national budget allocation toward waste management
- Vietnam has already developed a **plan to deal with solid waste by 2025, which focuses on recycling** (National strategy for integrated solid waste management to 2025, vision to 2050)



# CHALLENGES

- Despite an exemplary early mover initiative for integrated waste management, there are a **lack of action plans and adequate funding** to meet the ambitious targets
- Mechanisms for **revenue collection are insufficient** and far from full-cost recovery.
- Need for **greater transparency and control of private sector monopolies**
- **Overlapping roles and responsibilities** among agencies involved in waste management.
- Vietnam **does not have the facilities to achieve NAP on solid waste management goal.** Most waste is simply being dumped - from left-over food to plastic bags, rubber, and plastic straws - into landfill sites across the country, where it is left unsorted and untreated.



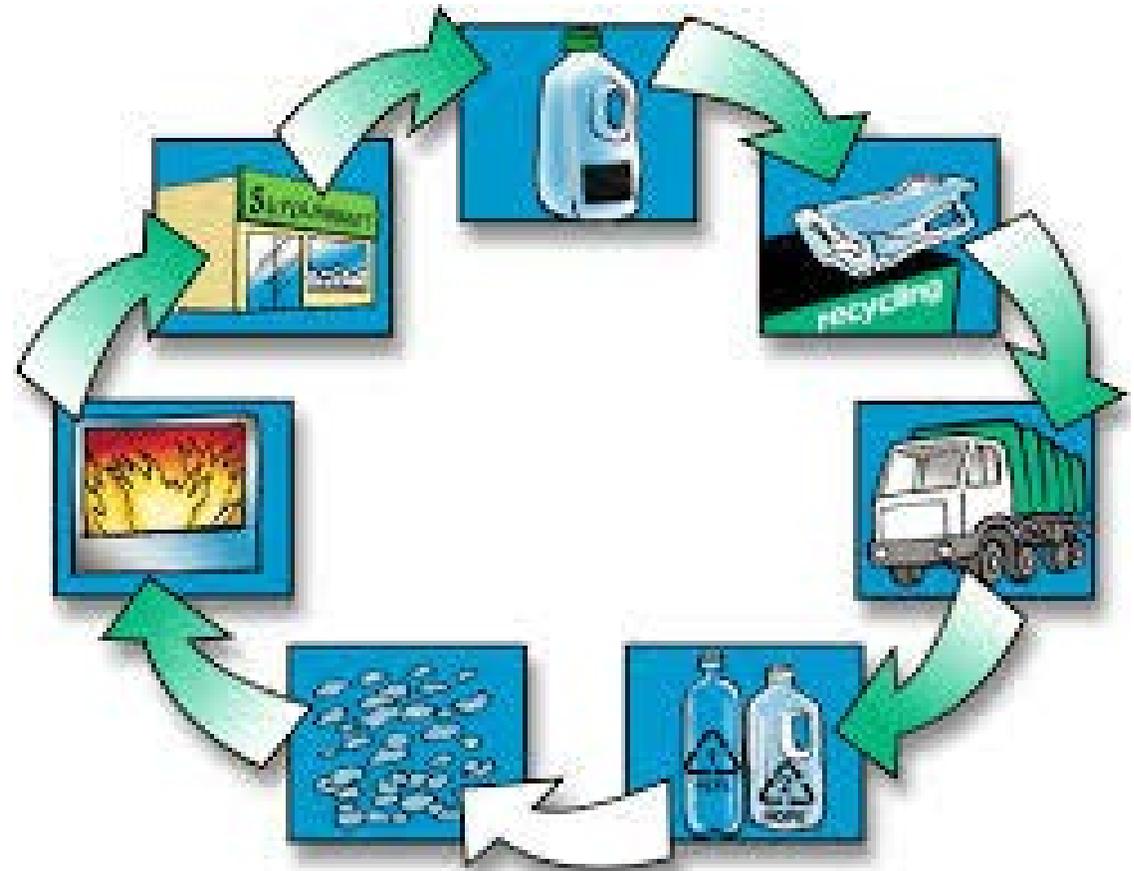
# Marine Plastic Pollution



- Although a **global problem**, marine plastics demand regional and **local solutions**
- Multiple actors need to **act together** within a common framework
- A cross-sectoral approach and linkages between **practice and policy** are required
- Business cases and **tools triggering** action are needed

"If it can't be reduced, reused, repaired, rebuilt, refurbished, refinished, resold, recycled or composted, then it should be restricted, redesigned or removed from production."

PETE SEGER



# Thank You!