DIVERS CLEAN ACTION
Plastic consumption in Indonesia is **17 kg/person**

Total plastic production in 2015 is **4,3 million ton**

3,6 mil ton supplied by local manufacturers

0,7 mil ton imported

https://www.k-globalgate.com/en/Press/Press_Releases/Southeast_Asia_a_wild_card_in_the_global_plastics_industry:
Plastic production in Indonesia (2/2)

60% Used within a year or less
15% Used for years, even decades
7% 8%

Plastic demand in Europe in 2015, by type

- 39.9% Packaging
- 25.7% Others
- 19.7% Automotive
- 8.9% Construction and demolition
- 5.8% Electrical and electronic equipment

Source: PlasticsEurope, Statista 2019

Highlight: Kepulauan Seribu

- Of **110 islands**, 11 islands are inhabited by population of 27,000
- Within an **area of National Park** with exception of residence area, commercial fishing grounds, and tourism
- Massively impacted economically and culturally by **growing tourism activities**.
- **Coral reefs are slowly decaying**, more than 46% (24/52 sites) is unhealthy, due to non-responsible tourism ethics
Highlight: Waste management system

Waste categories in Kepulauan Seribu and the total waste…

- **Organic waste**: 65%
- **Recyclable waste**: 12%
- **Residual waste**: 23%

In reality…

- **Composted**: 12%
- **Recycled**: 7%
- **Shipped to landfill or mismanaged**: 81%
Our strategies in tackling waste problem (also plastic)...

**OPERATIONAL AND SYSTEM SET-UP**

Promote integrated waste management system that is compatible with waste segregation in planning phase as well as all operational activities within the island with the support of 100% community participation. Baseline study and collaborative brainstorming session to provide system set-up within island context.

**SUSTAINABLE COOPERATION WITH ALL STAKEHOLDERS**

All government institutions, businesses, NGOs, and communities have to work together to achieve waste reduction target by 30% by 2025 and close all waste leakage sources. Collaboration will help gather the scattered resources and allocate them much more efficiently, with funding, human resources, and knowledge in practices.

**INFORMATION, EDUCATION, CAMPAIGN**

Engaging households, tourists, and other beneficiaries requires innovative and sustainable communication strategy to induce behavior change in order to raise awareness on and maintain the practices of waste segregation at source.
Operational and system set-up: Map out the baseline

- **Household and tourist waste**
  - **Recyclables**
  - **Residual**
  - **Temporary disposal site**
  - **Waste ship**
  - **Landfill Bantar Gebang**
  - **Compost in land**
  - **Black soldier fly (BSF)**
  - **Waste bank**
  - **Informal sector**

**Operational and system set-up:** Map out the baseline.
1. **IEC strategy** in waste segregation for households and tourists
2. Engage and deepen relationship with local champions

**Baseline study**

**IEC**

**Technical assistance**

Bridging the gap with...

1. **IEC strategy** in waste segregation for households and tourists
2. Engage and deepen relationship with local champions

**Increase up to 100% households and tourist segregating waste**

**Compatible segregated waste collection**

1. **Standardized protocol and implementation** in segregated waste collection
2. **Close coordination** between the waste collectors and government
3. Technical **roadmap** developed in concordance with regulations

Operational and system set-up: What’s next?
Raise awareness, assist initiation, and maintain practices of waste segregation at source using the stages of behavior change, coupled with continuous efforts and close monitoring to acknowledge underlying factor that moves people to actually segregate waste.
Project SOSIS, initiated since 2017 to address marine environmental problems, in waste management scope in Kepulauan Seribu has a series of activities that involve numerous stakeholders and beneficiaries for our grassroot movement, and advocacy to government to enforce regulation as well as promote sustainability practices.
KEY STAKEHOLDERS (1/2)

01
PPSU
Formal household waste collector

02
PJLP LH
Formal beach and marine debris collector

03
Informal Sector & Waste Bank
Recyclable waste collector from household & establishment

04
Tour Operators
Tour service providers in Kepulauan Seribu
**KEY STAKEHOLDERS (2/2)**

05

**Pemkab**
Give directives to Kelurahan and Kecamatan for program implementation

06

**Kelurahan**
Manages all activities within the inhabited islands and authorizes PPSU

07

**Sudin LH**
Manages all activities regarding waste management system

08

**Taman Nasional Kep. Seribu**
Conservation-based activities in northern part of Kepulauan Seribu
Advocacy on improvement of waste management system

- Recyclable collection: 7%
- Organic collection: 7%
- Households segregating waste: 40%

National waste reduction target: 22%
Cooperation with all stakeholders

(1) Increase technical capacity and knowledge of local communities

(2) Waste reduction through refill store

(3) Increase number of segregation facilities and collection

(4) Increase capacity of BSF

(5) Infrastructure of disposal site & waste bank

Notes:
Existing condition
Recommended activity

Households
Segregated waste
Segregated waste collection

Organic
BSF
Residual
Residual treatment
Recyclables
Waste bank
Marine debris

Cooperation with all stakeholders
Cooperation with all stakeholders
Collaboration with all relevant stakeholders boosts the achieved waste reduction rate to 21%, but still short of 1% compared to national target…

**Cooperation with all stakeholders**

**LESSONS LEARNED**

- **System in place**: segregated waste collection up and running with regular schedule and proper facilities
- **Proper and thoroughly planned IEC strategy** and implementation to households and tourists on waste segregation
- **Waste banks, informal sector, local communities, and government are working together** to promote waste treatment

- **Households segregating waste**: 226
- **Recyclable collection**: 9%
- **Organic collection**: 12%
Sustainable cooperation with all stakeholders
Sustainable cooperation with all stakeholders

**COMMITTED REGULAR FORUM**

**GOVERNMENT**
Kelurahan, Environment Agency, National Park, Tourism Agency

**COMMUNITIES**
PPSU, PKK, LMK, RT, RW, Jumantik, local figures

**BUSINESSES**

**NON-PROFIT**
Divers Clean Action, LPS, Schools

Assembled team of all stakeholders
HOW CURA REFILL STORE WORKS

1. Consumers prepare and bring their containers for the products bought at Cura’s refill store.

2. At the store, consumers weigh their empty containers on a scale.

3. Consumers take out the products from large jars and put them to their containers.

4. After finishing up filling their containers with the products they want, consumers weigh their filled containers.

5. Warung will convert the weight of the products bought to cost and incur them to consumers (Rupiah).

6. Consumers and warung finish transaction.
Refill store model