



RECYCLING  
**ACADEMY.**

# Kick-off

## The Recycling Ecosystem

Content by



PLASTIC  
ODYSSEY



# I. Plastic Pollution : It is urgent to act!

The consequences of plastic pollution on our lives and environment.

# Accumulation of waste

In countries most affected by plastic pollution, nearly half of plastic waste ends up in landfills, open burning sites, or directly in the land and water environment.



# Accumulation of waste

Plastic waste can end up in the environment, including streets, rivers, mountains, countryside, lakes, and oceans, leaving no place untouched.

## The local consequences include:

- 👉 waste being burned in the open air or dumped in landfills, with an impact on urban air quality...
- 👉 blockage of waterways
- 👉 risk of injury and disease
- 👉 negative impact on tourism and local economy
- 👉 visual and olfactory pollution, degrading the living conditions of local populations

**Communities are often powerless in the face of the accumulation of plastic waste piling up around them.**

# Soil and water contamination

Microplastics can accumulate in wastewater treatment systems.

👉 They end up in the sludge that is then used as fertilizer

👉 Several thousands of tons of microplastics end up in soils each year. Rainwater runs through plastic waste in nature and becomes loaded with contaminants before flowing into the soil and infiltrating groundwater

👉 This polluted water, known as leachate, is harmful to humans, plants, and animals that consume it



# Biodiversity collapse

In all natural environments, biodiversity is strongly impacted by the presence of plastic:

- 👉 Entanglement
- 👉 Ingestion
- 👉 Destruction of their habitats
- 👉 Diseases spread by plastic waste

💀 Death of many species. It is estimated that 1.5 million animals are killed by plastic pollution each year.

🚧 Waste is increasingly flowing into the environment. These impacts on biodiversity are getting worse every year.



# Deterioration of Human Health

The health risk comes from the chemicals that are added to the plastic during shaping..

## Health consequences include:

- 👉 impacts on the immune system and the respiratory system
- 👉 endocrine disruptions
- 👉 increased cancer risks.

Not being properly evacuated by the human body, some microplastics and toxic additives cling to tissues and organs, causing irritation and disease.

**Plastic pollution is a public health issue.**



# Acceleration of climate change

Greenhouse gases (GHGs) are emitted throughout the lifecycle of plastic.

During its extraction, transportation, incineration, and even degradation, plastic releases carbon dioxide, methane, and other greenhouse gases into the atmosphere.

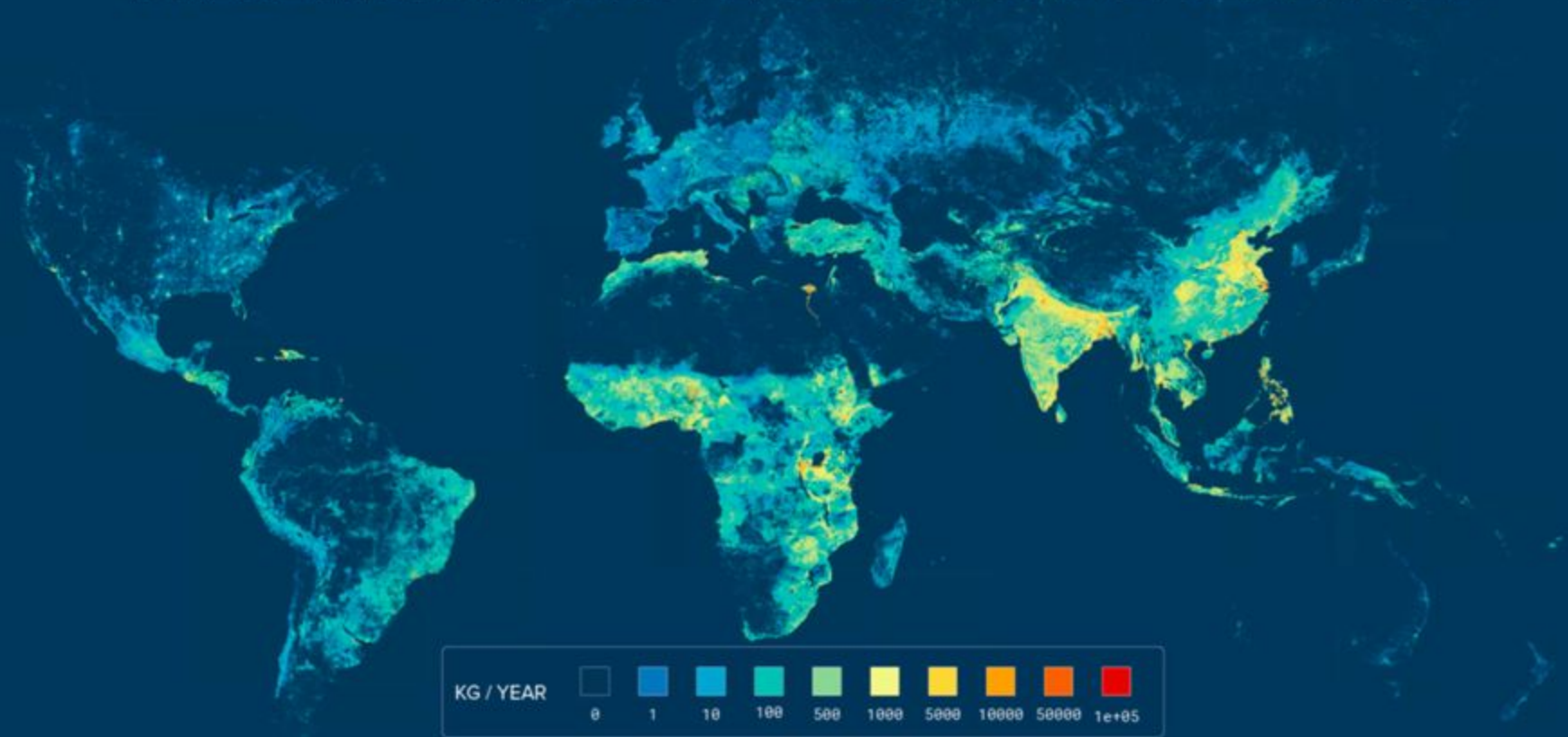
Global plastic production is equivalent to emitting 56 billion tonnes of CO<sub>2</sub>, which is 1/10th of total CO<sub>2</sub> emissions.

**Plastic pollution is a cause of global warming.**





# WHERE MISMANAGED PLASTIC WASTE IS GENERATED



## II. Introduction to plastic waste

### The Recycling context

# The Recycling context

**Beware, recycling is not an end in itself!** We must urgently find alternatives and reduce our consumption of plastics. We must also recycle existing waste because the production of plastic is still increasing every year.

## How can we do this?

In Europe and the USA, large recycling industries have been set up but they are not very profitable and are subsidized. They are based on the principle that waste is a cost to society.

In the rest of the world, more and more local initiatives are developing but they are isolated and need equipment and funding.

 **Together, let's train the new generation of plastic recycling entrepreneurs.**

### III. Welcome to Plastic Odyssey!

Our missions  
Clean Up The Past actions



# Our missions



## Clean Up The Past - The Recycling Network

By recycling 1 out of every 2 pieces of waste in the 30 countries most affected by plastic pollution, more than 40% of global plastic pollution could be avoided.

Plastic Odyssey supports recycling entrepreneurs from around the world to help them develop their projects and transform existing plastic waste into useful resources.

To achieve this, Plastic Odyssey is developing:

- **Recycling Training Tools**
- **Low-tech Industrial Tools** for recycling plastic waste
- an **International Community of Recycling Entrepreneurs**

# Our missions



## Build The Future - Understanding and evolving the use of plastics

Reducing waste production to 1.7 kg per day per inhabitant would prevent 26% of ocean pollution.

By educating and training the world's citizens, we can leave a clean planet for future generations.

We are implementing concrete actions for both young and old to understand and change their usage of plastics.

# Clean Up The Past actions

 **ONBOARD  
LABORATORY.**

ON BOARD

Incubation program aboard the Plastic Odyssey to learn technical recycling practices and create links with local actors and professionals.

 **LOCAL  
FACTORIES.**

ON LAND

Turnkey containerized recycling micro-factories (200 to 1,000 tons of recycled plastic waste per year) with training in equipment use and management.

 **RECYCLING  
ACADEMY.**

ONLINE

Accessible training to become familiar with the challenges of plastic recycling and learn the basics to develop your own plant with semi-industrial processing capacities.

## IV. Recycling entrepreneurship

Major milestones

Values promoted by Plastic Odyssey

Examples of successful stories

Keys of success



# Major Milestones

## 1. Ideation

Observation phase of a problem, development of an idea and solution

Resources for information, advice and discussion

## 2. Maturation

Reflection phase and transformation of the idea into a business model

Need for technical advice, business model, network development

## 3. Prototyping

Full-scale tests, validation of the concept - deposit / client ecosystem

Business Plan - Financial assistance, incubation

# Major Milestones

## 4. Launching

Legal structure,  
launch of operations

## 5. Take-off

Towards reaching  
the balance point,  
Quality stabilization,  
customers

## 6. Flight

Growth phase,  
diversification,  
expansion

# Values promoted by Plastic Odyssey

★ **LOCAL:** local sectors led by local entrepreneurs, who create jobs and wealth within their territory and communities.

★ **LOW TECH:** accessible technologies, easy to operate and repair, less expensive and easily replicable.

★ **COLLABORATIVE: pooling our knowledge**  
*"alone we go faster, together we go further".* The knowledge accumulated every day by humanity is colossal and can move mountains if it is put to the service of a common action.

★ **SUSTAINABLE: a recycling economy that does not feed the production of plastic** - transforming plastic waste into a sustainable and useful resource for the needs of its region.

# Examples of successful stories



**Gjenge Makers,**  
Nairobi, Kenya  
by Nzambi Matee

**Pavers and bricks for  
construction**

Growing Market



**DIA Plastiques  
company,** Conakry,  
Guinée  
M. Barry and Dia

**Garbage cans, basins,...**

Products that have  
become emblematic  
within the communities

# Keys of success



👉 **Have a clear vision** of what you want to do and stick to it, whatever the cost

👉 No need to have all the skills when you know how to **surround yourself** with the right people (e.g. technical/engineering)

👉 Don't just copy an existing idea (e.g. making bricks) because each market is unique: you have to **understand the need** before designing the product and write your own story

👉 **Test and make mistakes** quickly to succeed quickly

## V. Presentation of the Recycling Academy's program

 **Kick-off & introduction of the recycling ecosystem** ✓

 **Course 1 - Transform waste into products**

 **Course 2 - Build my recycling center**

 **Course 3 - Define a viable business model**