Microplastic monitoring and surveys regarding plastics leakage

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Consultant of Pirika Inc

Pirika

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2. Pirika’s Solution for plastic waste
3. Microplastic survey using *Albatross*
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1. About Pirika

Mission

Aim to Resolve All Environmental Issues through the Power of Science & Technology

Founder / CEO

KOJIMA Fujio 小嶌 不二夫

One of Innovators Under 35 Japan 2021 by MIT Technology Review

First Target

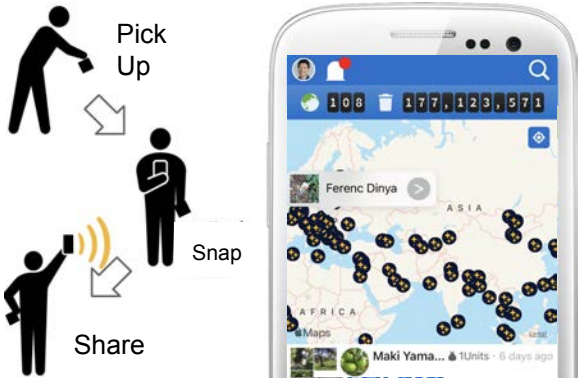
Minimize the Leakage of litters to the Natural Environment

- Founded in 2011
- Based in Tokyo, JAPAN
- Team of dedicated Engineers and Scientists

2. Pirika's Solutions for Plastic Waste

Pirika

Anti-Litter App
Pirika



The world's largest waste cleanup social media platform.

https://en.sns.pirika.org

Urban Litter Survey
Takanome

Tracks litter distribution through AI & smartphone.

https://en.research.pirika.org

Microplastics Survey
Albatross

ALBATROSS

Low-cost microplastics survey system can be used anywhere

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2. Pirika's Solutions for Plastic Waste

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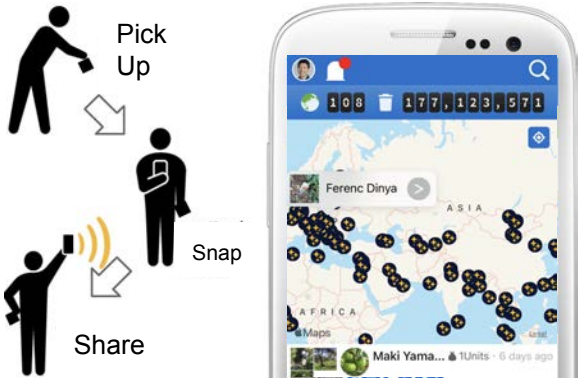

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3. Microplastic survey using *Albatross*

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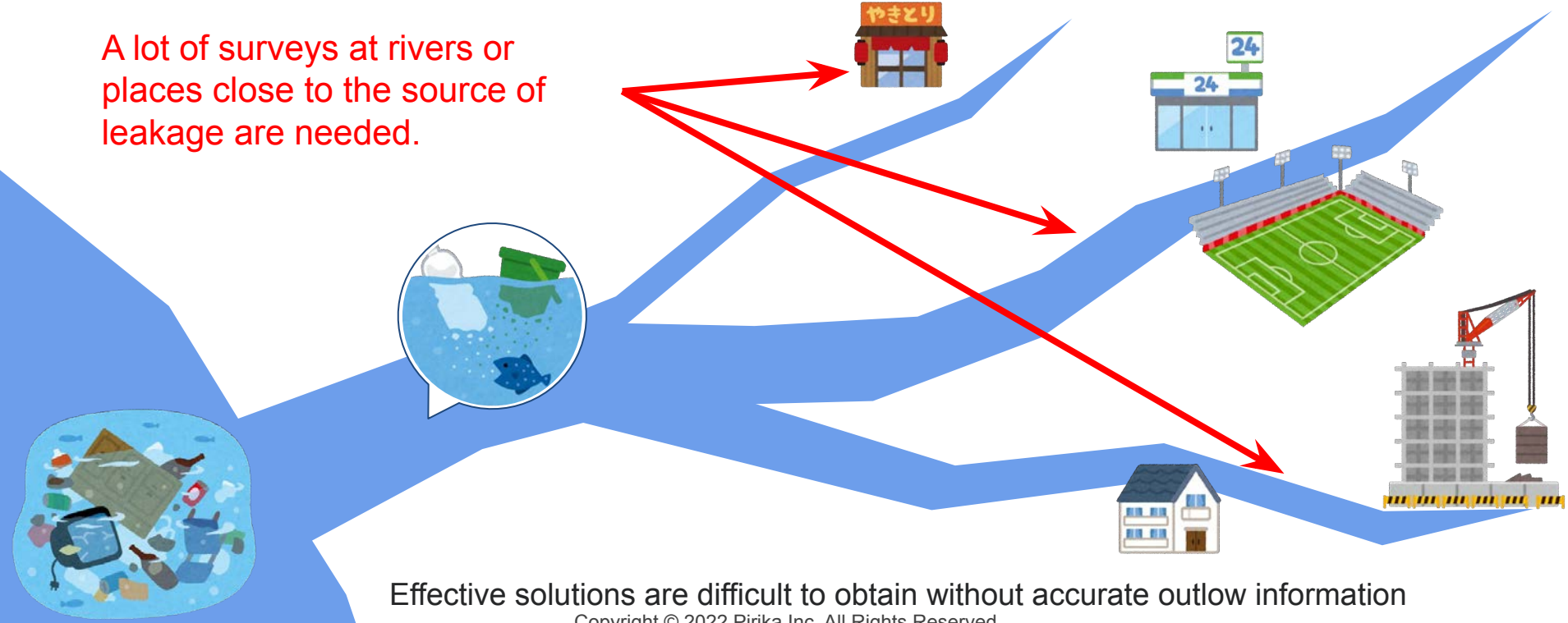
Researching Outflow Mechanisms to Reduce Microplastic Pollution

A lot of surveys at rivers or places close to the source of leakage are needed.



Effective solutions are difficult to obtain without accurate outlow information

Issues with Previous Survey Methods

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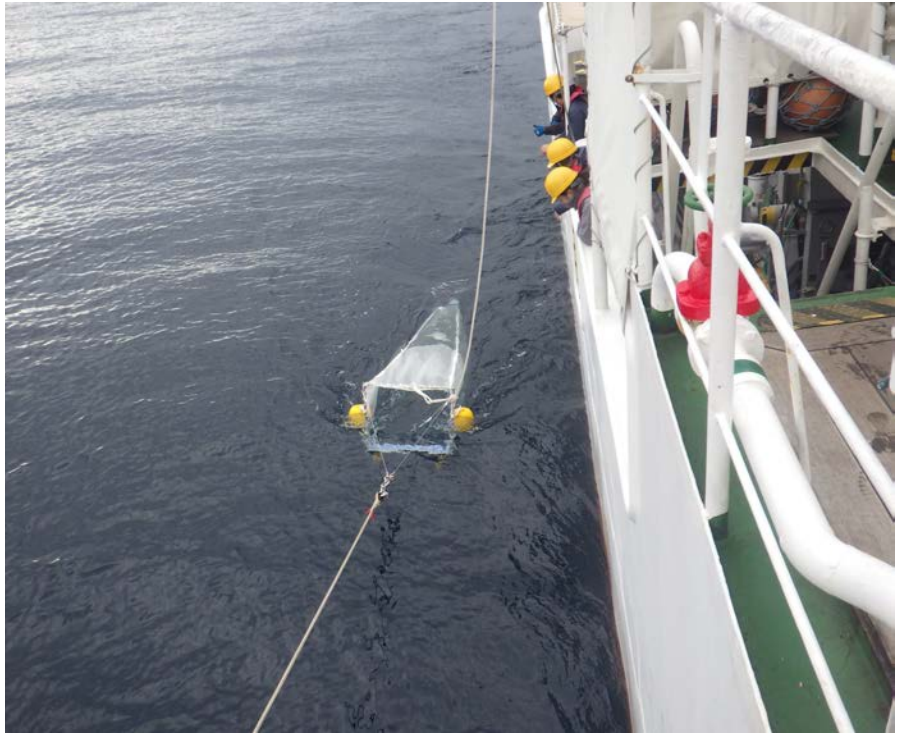
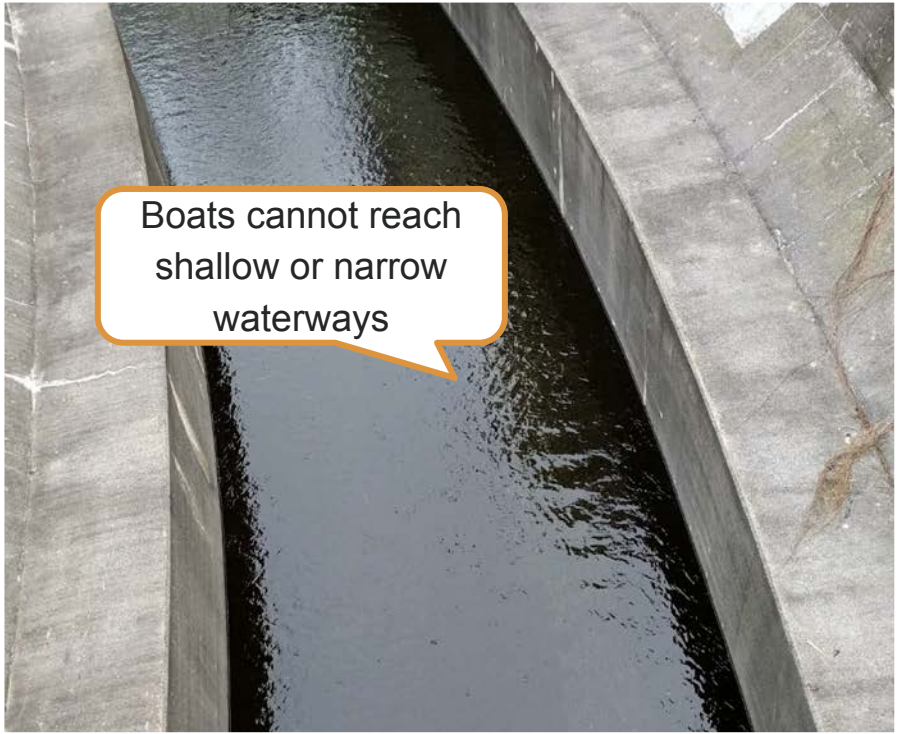
Boat sampling is **expensive** and its reach is **limited**





Developing a Microplastic Sampling Device

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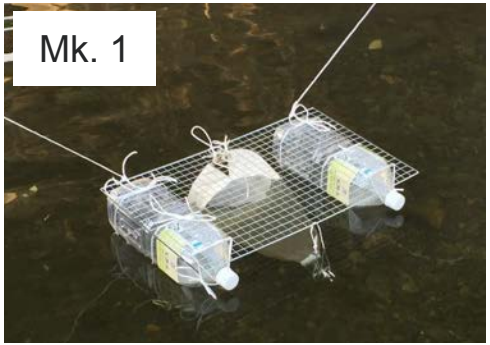
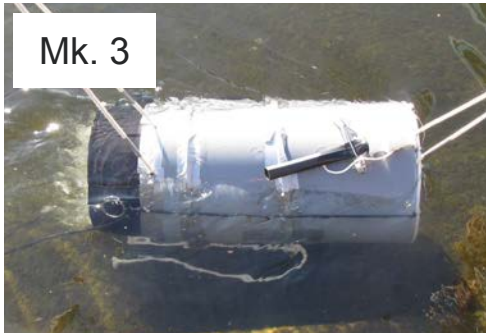
Developed an **affordable** and **versatile** sampling device





Albatross Around the World

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With its wide range and affordable cost, and deployed in over 300 locations across 10 countries as well as with UNEP, *Albatross* has become the world's largest microplastics survey system.

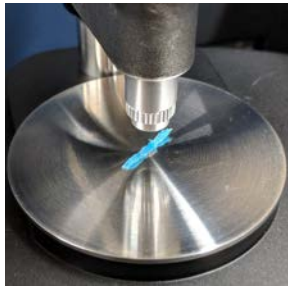
※ Projects in Thailand, Vietnam, Cambodia and Laos were conducted as part of UNEP's CounterMEASURE

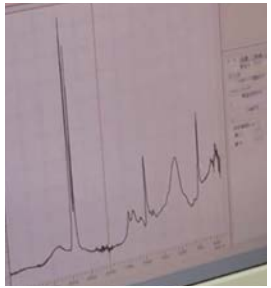
UN environment programme

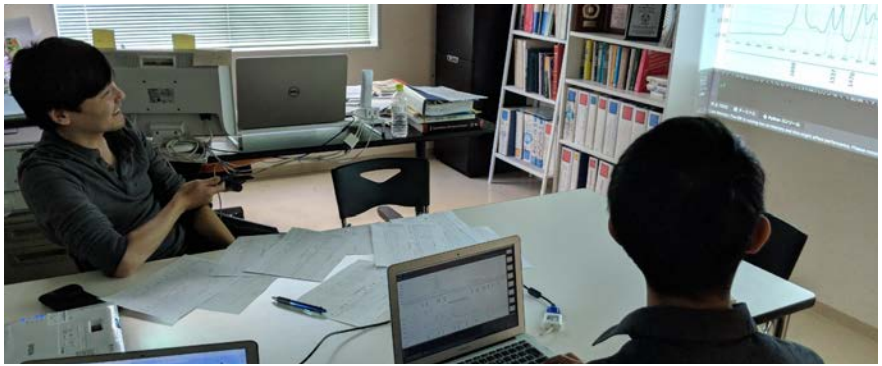
CounterMEASURE FOR PLASTIC FREE RIVERS

Determining Source Product of Microplastic Pollution

Collaborating with universities and plastics processing companies to analyze and identify samples in-depth







Products-Examples

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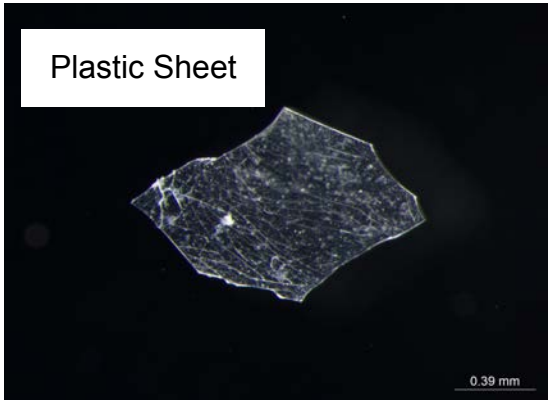
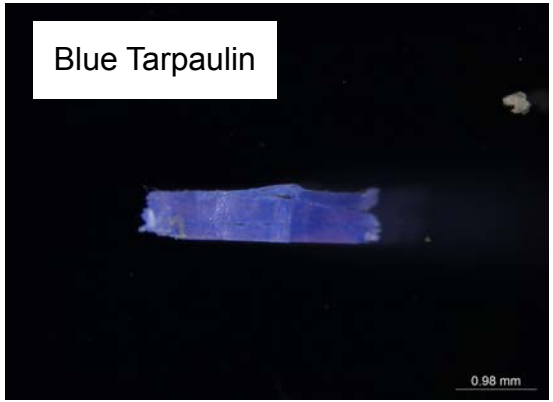
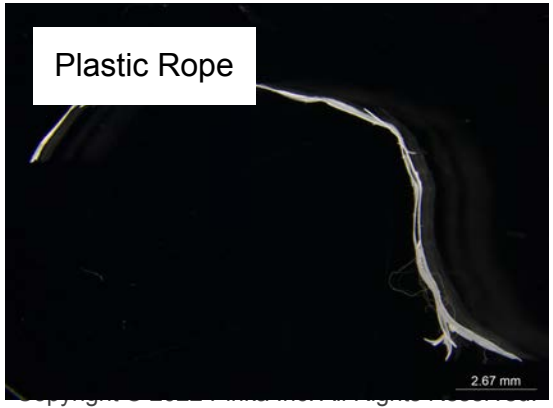
The original products of microplastics were deduced; examples are shown below.







Revealing Tremendous Outflows of Artificial Turf

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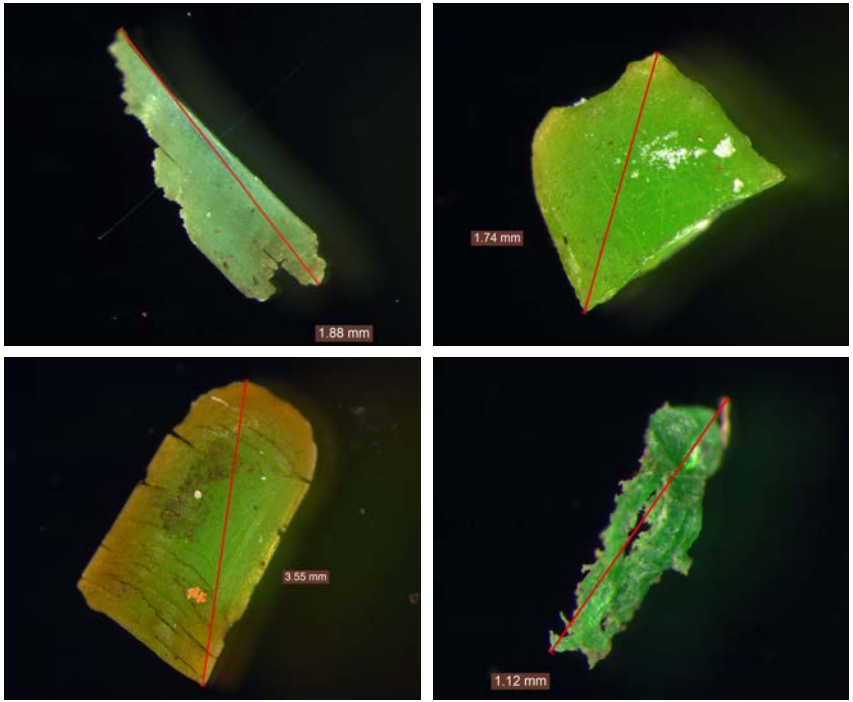
Artificial turf from sports facilities and school playgrounds makes up **20% of microplastics pollution** found in waterways in Japan.



Developing Solutions for Artificial Turf Leakage

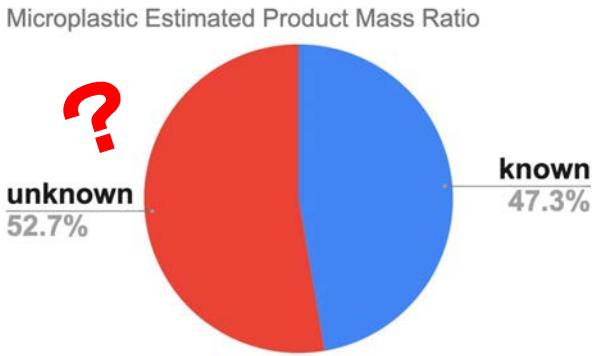
1. Creating guidelines about maintenance

2. Developing a filter to stop leakage

3. Recycling

4. Our next challenge against plastic leakage

1) Survey (Sampling and analysis) at rivers or near the source of leakage
   a) Identify the source products of unknown microplastics
   b) Consider low-cost countermeasures against obvious leakage
2) Collaborate with stakeholders
3) Develop concrete and socially acceptable solutions



Thank you for listening!

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https://en.corp.pirika.org/

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