# Nature&Culture

Ryota Takagi, Jin Piuyong,
Aya Hiyama, Sumire Otani

# Responsibility

# Minagawa-san

## SOCIAL PROBLEM:

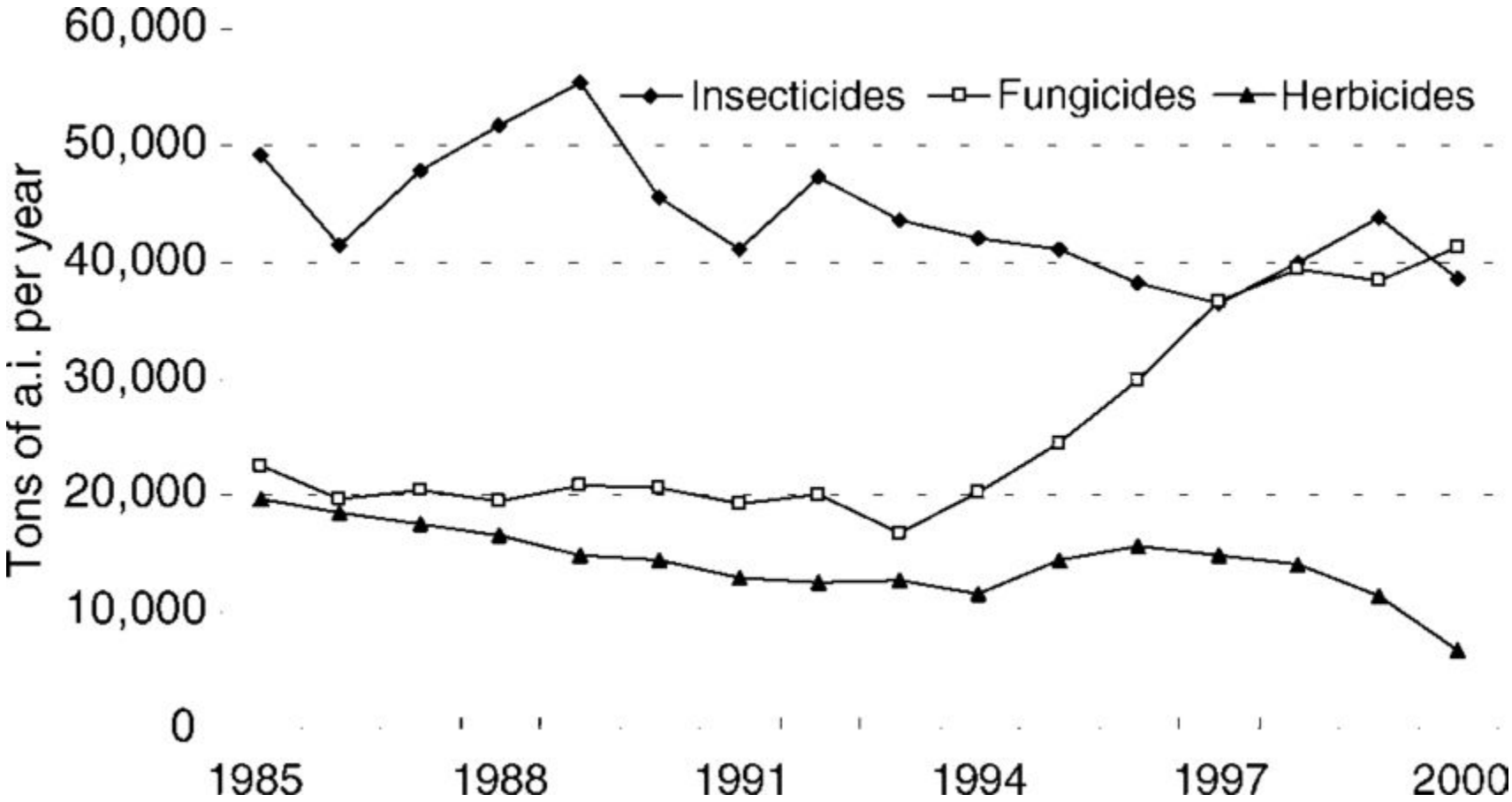
# Excessive use of PESTICIDES

# History

1950s: rapid economic growth and introduction of chemical pesticides

1970s: increase in non-chemical agriculture

1973: Takahata has been leading the Japanese non-chemical agriculture


60,000
50,000
40,000
30,000
20,000
10,000
0
Tons of a.i. per year
Insecticides
Fungicides
Herbicides
1985
1988
1991
1994
1997
2000

# comparison about  plastic contamination among three countries

First let’s focus on Japan

In 2017, a total of 9.03 million tons of plastic waste was produced in Japan, of which 5.24 million tons of garbage were used for incineration and power generation. Meanwhile, 2.11 million tons of plastics were recycled, and the rest of the garbage can only be filled and transported to other countries.
In addition to the problem of ordinary plastic waste, the problem of micro-plastic waste has become more and more serious in Japan. In a survey of 36 rivers in Japan, researchers found microplastic waste in 26 rivers, and this problem is more serious in Tokyo, Chiba and other nearby areas.

# The definition of Micro-plastic Contamination

Microplastics are plastic fragments and plastic granules with a size of 0.3 to 5.0 mm. They float in the marine environment at low concentrations and also can absorb other large amounts of organic matter at high concentrations. Micro-plastic waste remains in the ocean, not only destroys the marine environment, but also harms marine life. What is worse, they will enter the human body through the food chain, which will have a great impact on our human health.

# plastic contamination in China

Later please pay attention to China

The problem of plastic waste in China is obviously much worse than that in Japan. According to data from China's environmental sector, in 2017 China produced a total of 75 million tons of plastic waste, of which less than one-third of plastic waste was recycled. Most of the garbage is dealt by filling it up. Large plastic landfills can be found everywhere in rural China.

To make matters worse, many plastic waste is directly placed in rivers or oceans. According to the survey results, in 2017, China put a total of 2,054 tons of plastic waste into the East China Sea, equivalent to the weight of 136 large trucks.

In addition to its own plastic waste, China has also received many plastic wastes in other countries. According to a survey in 2014, China imported a total of 7.35 million tons of plastic waste. In that year, more than half of the countries in the world that intend to export plastic waste to other regions chose to ship garbage to China, China also bears 45% of the total amount of garbage.

Therefore, we can conclude that there is currently no way for China to completely solve the plastic waste it produces, but it also imports a large amount of plastic waste from other countries. This shows that the problem of plastic waste in China is very serious and the situation is not optimistic.

# plastic contamination in EU

Finally, I think that we can learn something from EU.

The plastics industry in the EU is also very large, producing about 26 million tons of plastic waste each year. However, the EU has taken active actions from the legal level and social propaganda level to effectively solve the problem of plastic waste.
At the legal level, the European Union issued the "Plastic Strategy in the European Circular Economy" in 2018, showing the EU's determination to actively respond to marine plastic waste, providing a unified plan for the EU to formulate national plans and actions, and facilitating the exchange and sharing of results among countries. In the management of disposable plastic bags, specific regulations such as the Waste Management Act are also being implemented. It can be said that the EU's supervision of plastic waste is in place and various regulations are also very sound.

At the level of publicity, EU countries have adopted various effective publicity and initiatives on the use of plastic bags, thus encouraging people to use less plastic bags and more environmentally friendly products. In the brochures published by countries such as Belgium, citizens are also advised not to discard plastic products into the sea at will, and to ask citizens to raise their awareness of marine protection. In addition, in countries such as France, through the call of the national level, many cosmetics companies promise not to use plastics to produce cosmetic packaging, bottles, etc., thereby reducing the production of plastic waste.
From the above, we can easily see that the EU has gone far away on the road to solve plastic waste, and there are many valuable experiences worth learning.

# 4. Can human return the ‘Gift for Nature’?

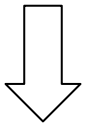
**Yes!**

**Forests** cover 30.7% of the Earth’s surface and, in addition to providing food security and shelter, they are key to combating climate change, protecting biodiversity and the homes of the indigenous population.

**Oceans** drive global systems that make the Earth habitable for humankind. Our rainwater, drinking water, weather, climate, coastlines, much of our food, and even the oxygen in the air we breathe, are all ultimately provided and regulated by the sea.

# 4. Can human return the ‘Gift for Nature’?

Pollution, climate change, depleted water reserves and a reduction in biodiversity are among the most alarming consequences of the harm inflicted on the environment by humans’ uncontrolled exploitation of natural resources. The extent of damage is huge and will affect the well-being of future generations.



For sustainable future, we need to ‘**coexist**’ with nature and return ‘**gift**’ to them.

# 5. How do we connect urban area and countryside?

<<Urban area>>


(i) The amount of Information

(ii) Opportunity

(iii) Convenience

<<Countryside>>

(i) Experience

(ii) Lifestyle

(iii) Community

# 5. How do we connect urban area and countryside?

Suggestion: **Food Education**

Purpose: Giving opportunity for children in city to think about;

(a) How farmers make vegetables

(b) How much effort farmers do

(c) It is not natural that we can eat flesh foods

# 5. How we connect urban area and countryside?

The way of conducting “food education” for student in city

(i) Holding school trip in countryside (such as our field trip)

(ii) Farming in school

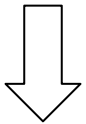
: ”Cooperation between these areas”
= ”Benefit for our country”

…… To get perspective view
: different experience
: the area you’ve never been

# 6. Our SDGs agenda

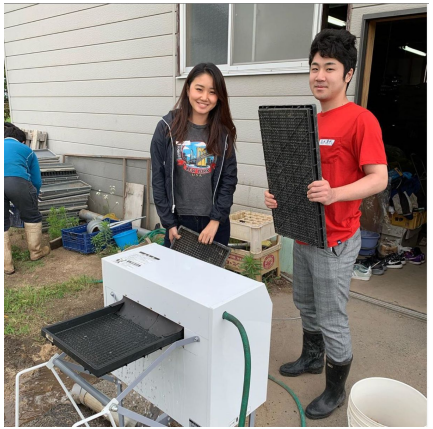
## Goal 12: Ensure sustainable consumption and production patterns

Should the global population reach 9.6 billion by 2050, the equivalent of almost three planets could be required to provide the natural resources needed to sustain current lifestyles.



In the context of mass production and mass consumption, it is necessary to consider the negative impact on environment.

# Our best pictures from field work



TEAMWORK

NATURE

LITTLE LIFE

ENDEAVOUR

Thank you for listening!