



Plastic innovation for tomorrow



Japanese biomass plastic derived from rice (Non-edible rice)

Introducing "Rice Resin"

Rice Plastic Innovation



01. What is Rice Resin (zero waste)



who makes the Rice Plastics?





03. Company Profile



- Foundation date: 2020.3.10
- Capital stock : 135.16 million yen (As of June 2021 / Including capital reserve)
- CE0 : Kazuhito Kamiya
- Number of employees: 60 (As of April 2021 / Including HD affiliated companies)
- Adress : EGG JAPAN, Shinmarunouchi building1-5-1 Marunouchi Chiyoda-ku, Tokyo Japan
- Business content : Manufacture, Sales and Research and Development
 of Biomass Plastics and Raw Materials

















04. What is Rice Resin



"Rice Resin" is Japanese biomass plastic derived from rice (Non-edible rice)

Our new technology uses those Old Rice, Crushed Rice, Omitted Rice, and Rice that is not treated as Feed, and Discarded Rice to upcycled to produce "Rice Resin"



Non-edible Rice





Rice Resin

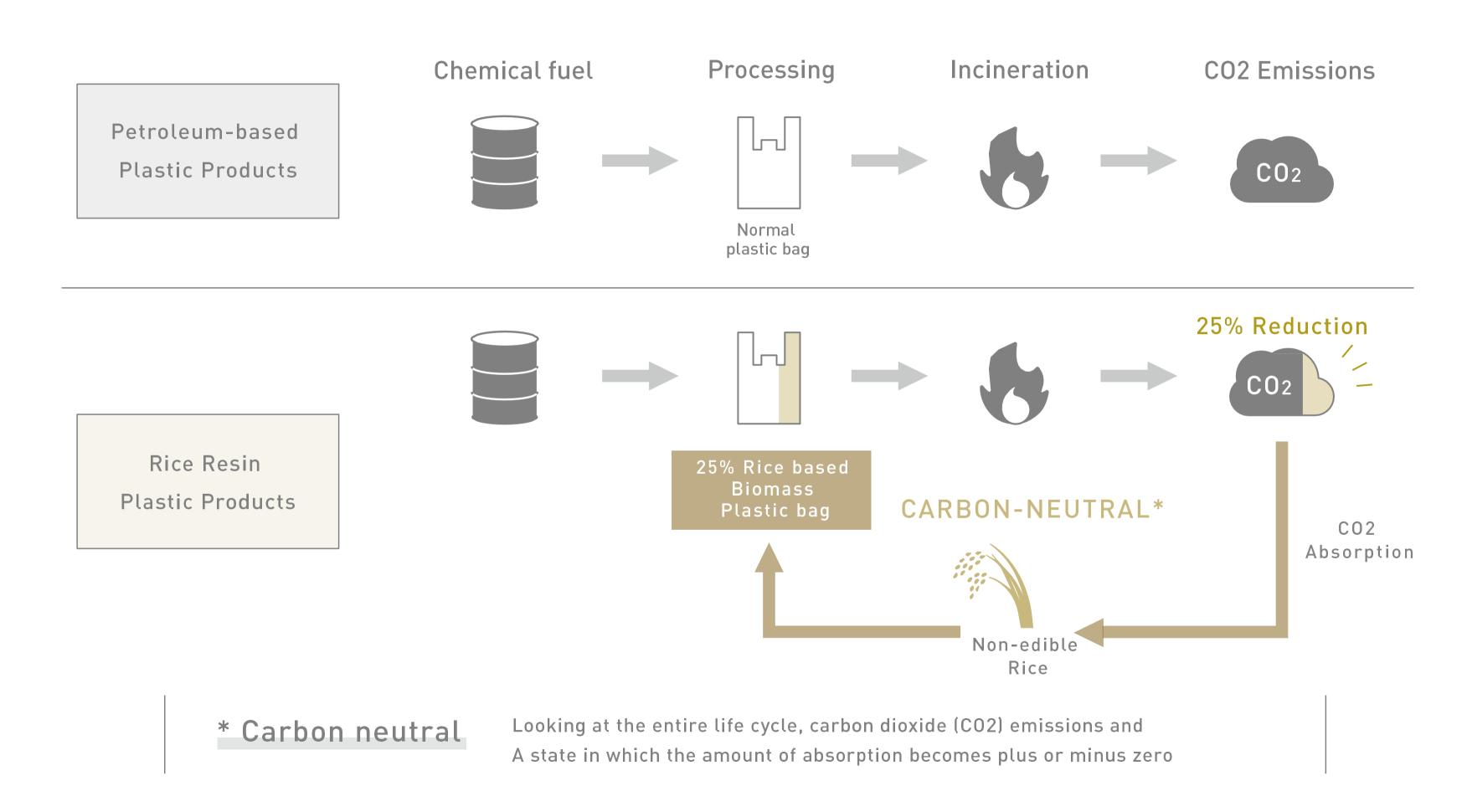
It is possible to mix rice upto 70%, which can significantly reduce the content of petroleum-based plastics

05. Types of Biomass Plastic

Туре	Definition	Consumer goods and categories suitable for use
Biodegradable	Plastic that is finally decomposed to C02 and water by the action of microorganisms existing in nature	Products that have leaked into the natural environment Non-durable goods that cannot be collected after use. (Ex: fishing line, fishing net, etc.) Those that have been recovered but have the merit of biodegradability (Ex: Various types of agricultural films) **The development and commercialization of ocean analysis is progressing in Japan and around the world. Future issues are the formulation of evaluation criteria, the securing of raw materials, and the enhancement of production facilities.
Non- Biodegradable	Plastics obtained by scientifically or biologically synthesizing renewable biomass resources as raw materials	 Recycled products Durable goods that are not desirable to be disassembled into plastic, such as PCs and home appliances that are currently being recovered. ● One-way products (reduction is strongly required) Non-durable goods that can be recovered but emit CO2 because they are incinerated. (Ex: Garbage bags, plastic shopping bags, straws, food containers, etc)

Rice Resin contributes to the Japanese Government's Petroleum-based plastic Reduction Target and CO2 Emission Reduction during incineration

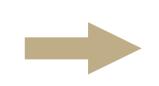
06. Reduction of Carbon Dioxide (non-Energy Origin)



07. Utilization of Fallow-Land and Abandoned-Cultivated-Lands

Utilization of Abandoned Cultivated Lands







Agricultural Support





Regional Activation

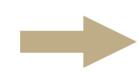
Spring of 2020

Started making Resource Rice in Abandoned-Cultivated-Lands by utilizing the "rice system for New Market Development".

As the first project, cultivated a high-harvest variety "Niigata Jiro" in Minami Uonuma City and used the harvested rice as a raw material for "rice toys"

2021

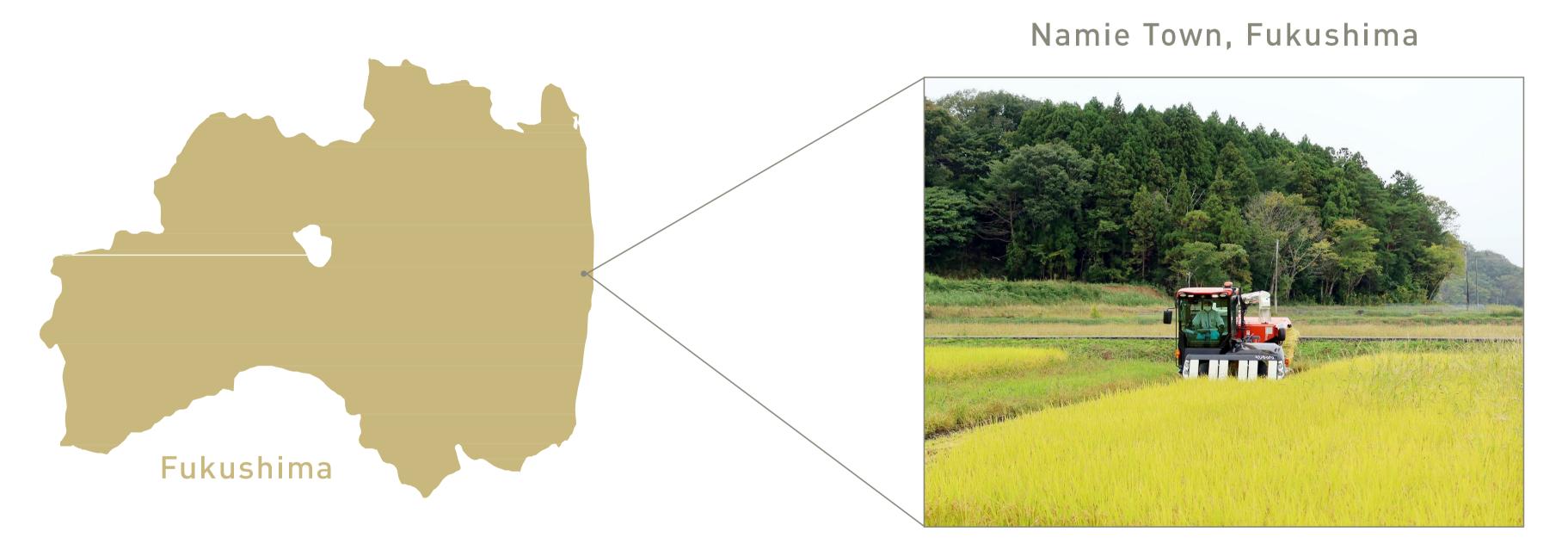
Large-scale field maintenance started in Namie Town, Fukushima Prefecture (about 3ha)



"Large factory model for ASEAN" that cooperates as Biomass Resin Fukushima Factory (rice resin production) and consistently performs from rice cultivation to Rice Resin raw material production

In the future, we aim for "unmanned agriculture x resource rice production" using AI as a rice cultivation model that emphasizes productivity and measures against abandoned cultivated lands.

08. The case in Fukushima: Utilization of Fallow-Land and Abandoned-Cultivated-Lands



about 3ha of rice for rice resin in Namie Town, Fukushima

09. Effective utilization of abandoned cultivated land and subsequent goals

Self-sufficient self-sufficiency of raw materials (Rice)

42,000 hectares of cultivation abandoned land in Japan It exceeds the area of two Tokyo!





Launched rice cultivation for

"Rice Resin" in abandoned land

Minami Uonuma City, Niigata Nar

Namie Town, Fukushima | • •

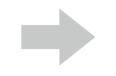
By 2025, 10,000 hectares will be returned to paddy fields by "Rice Resin"!

10. Our newest product: Rice Resin Neoryza®

Achievement of domestic biodegradable plastics

Preceding sales in the 2022 Asian market

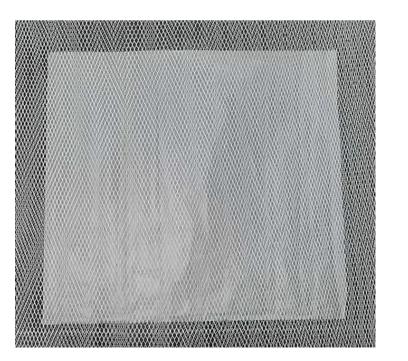


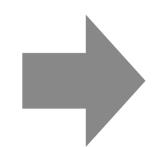


Low price and stable supply
Of "Rice Resin" by then

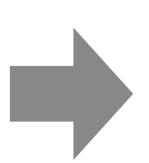
Kyoto University, our technology development partner, and we have achieved the Biodegradable Rice Plastic!

We will deliver sales in the Japanese market in 2025











11. Rice Resin products in the Market 1/4





Rice Resin

Block toys

Famous for Safe and Secure toys in the major retailers in all over Japan





Rice Resin

Shopping Bags

Expanding at convenience stores, supermarkets, and specialty stores nationwide





Rice Resin

Municipal

Garbage Bags

Already testing in Niigata city. Also city of Kumamoto, Kyoto, Yokohama and others are under discussion of using Rice Resin bags





Rice Resin
Chopsticks

Popular chopsticks
that can be used
for meals without
spoiling the original
flavor of rice





Rice Resin

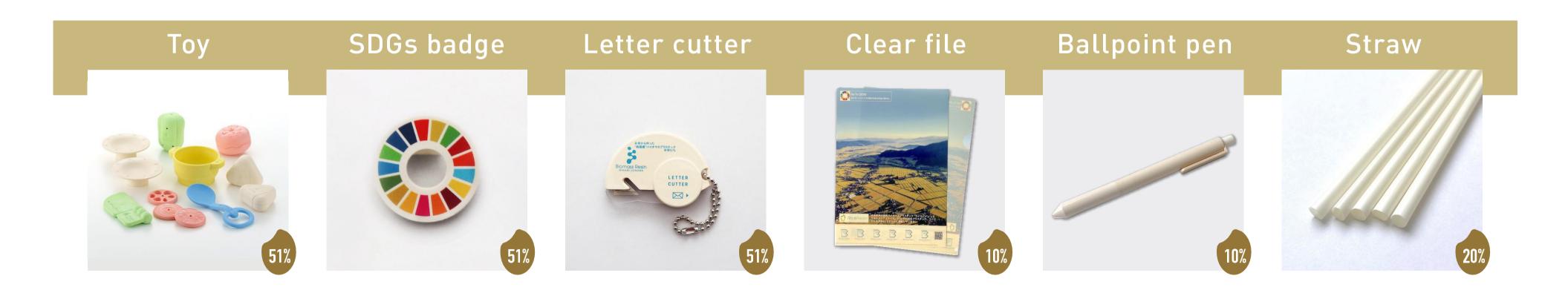
Clear Files &

Stationery

Rice Resin Files were used for tourism promotion in Niigata

11. Rice Resin products in the Market 2/4





11. Rice Resin products in the Market 3/4



Lunch box

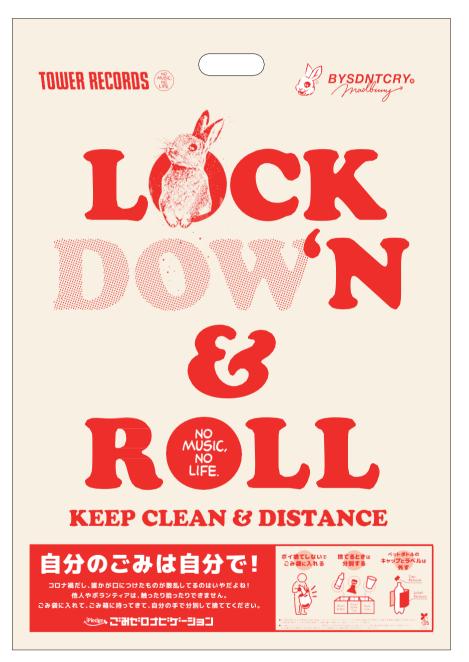




11. Rice Resin products in the Market 4/4

FUJI ROCK FESTIVAL'21









It was adopted in the garbage bag distributed at the entrance gate

12. Third-party evaluation of "Rice Resin" (featured by the Government)



Adopted for "Demonstration project for building a resource recycling system for plastics that supports a Decarbonized society in the first and second years of Reiwa" by Japanese MInistry of Environment



Adopted "Independence / Return Support Employment Creation Company Location Subsidy" by Japanese MInistry of Economy, Trade and Industry



Introduced on Facebook by the Food Industry

Bureau of the Ministry of Agriculture,

Forestry and Fisheries of Japan,

which focuses on efforts to expand the use of biomass.



Our Rice Resin has been certified by the Japan Organic Resources Association, and obtained Biomass Mark on our products

RiceResin

RiceFilm25

RiceFilm10

RiceFilm30

WoodResin

13. Future business Expansion in Japan

Build a production base that can cover the whole country with a local production for local consumption

- Domestic production 10,000t achievement target by 2021
- 10 domestic production Factories by 2025

Biomass Resin Minamiuonuma

Standard Line: 1 Small Line: 1 3,000 - 4,500t / year

Niigata No. 2 Factory Plan

Biomass Resin Hokuriku

Biomass Resin Kansai

Standard Line: 2 3,000 - 5,000t / year (First year 1 standard line)

Biomass Resin Hokkaido

Biomass Resin Tohoku

Biomass Resin Fukushima

Standard Line: 2 3,000 - 5,000t / year (First year 1 standard line)

2022 Summer Operation Start Plan

Biomass Resin Kumamoto

Standard Line: 3 5,000 - 10,000t / year (First year 1 standard line)

2022 Spring Operation Start Plan

Biomass Resin Shikoku Biomass Resin Chugoku

14. Future business expansion overseas 1/2

Build a production basis mainly in East Asia and Southeast Asia with joints with local companies

Overseas bases:By 2025 Building10,000 tons in five countries



14. Future business expansion overseas 2/2

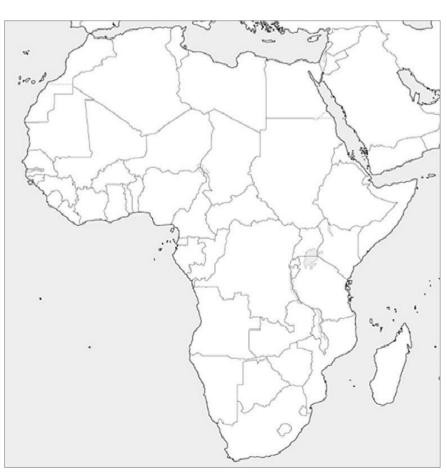
Thailand

SDGs Business Model Formulation Survey
with the Private Sector for Production and
Diffusion of Biodegradable Plastic Resin
Using Surplus Rice to Mitigate Marine Pollution

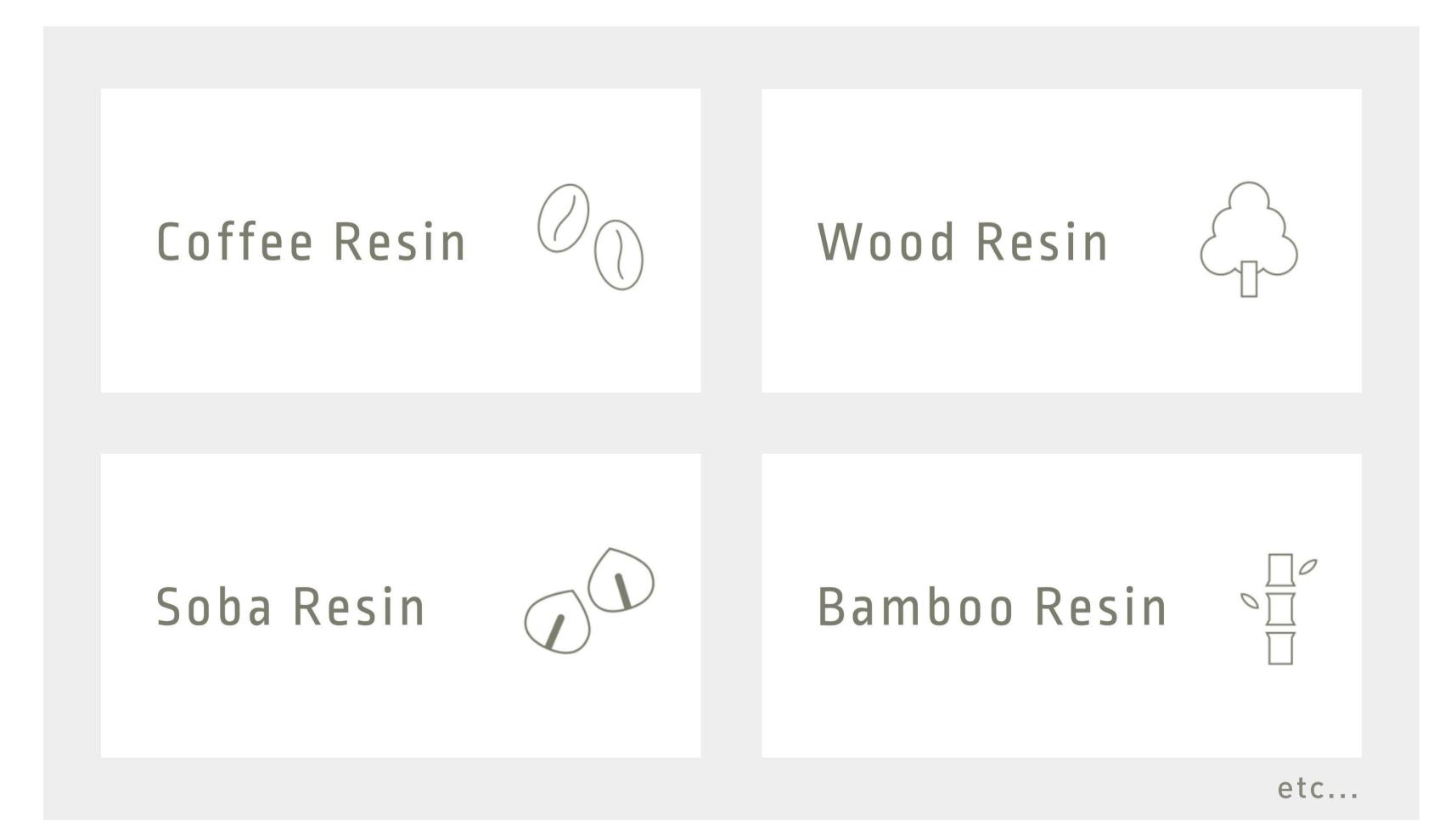
Africa

We will cooperate in a collaborative and partnership project to promote and disseminate packaging materials and raw materials that contribute to improving environmental issues in Africa.





15. Other Biomass Resin



Plastic innovation for tomorrow

Representing Asia

Ecology × Agriculture Company

Aiming to be a company that is needed for 100 years in the world and loved for 100 years