



SDGs

&

Organic Cycle

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Solo

Civic Engagement 4.0 Justice

~ Dignity ~ Sustainability

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SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD

1 NO POVERTY 	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL-BEING 	4 QUALITY EDUCATION 	5 GENDER EQUALITY 	6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	10 REDUCED INEQUALITIES 	11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND 	16 PEACE, JUSTICE AND STRONG INSTITUTIONS 	17 PARTNERSHIPS FOR THE GOALS 	 SUSTAINABLE DEVELOPMENT GOALS

Three Dimensions of Sustainable Development

- Sustainable development has been defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
- For sustainable development to be achieved, it is crucial to harmonize three core elements: **economic** growth, **social** inclusion and **environmental** protection.



Another Way to Look at SDGs – The Five Ps

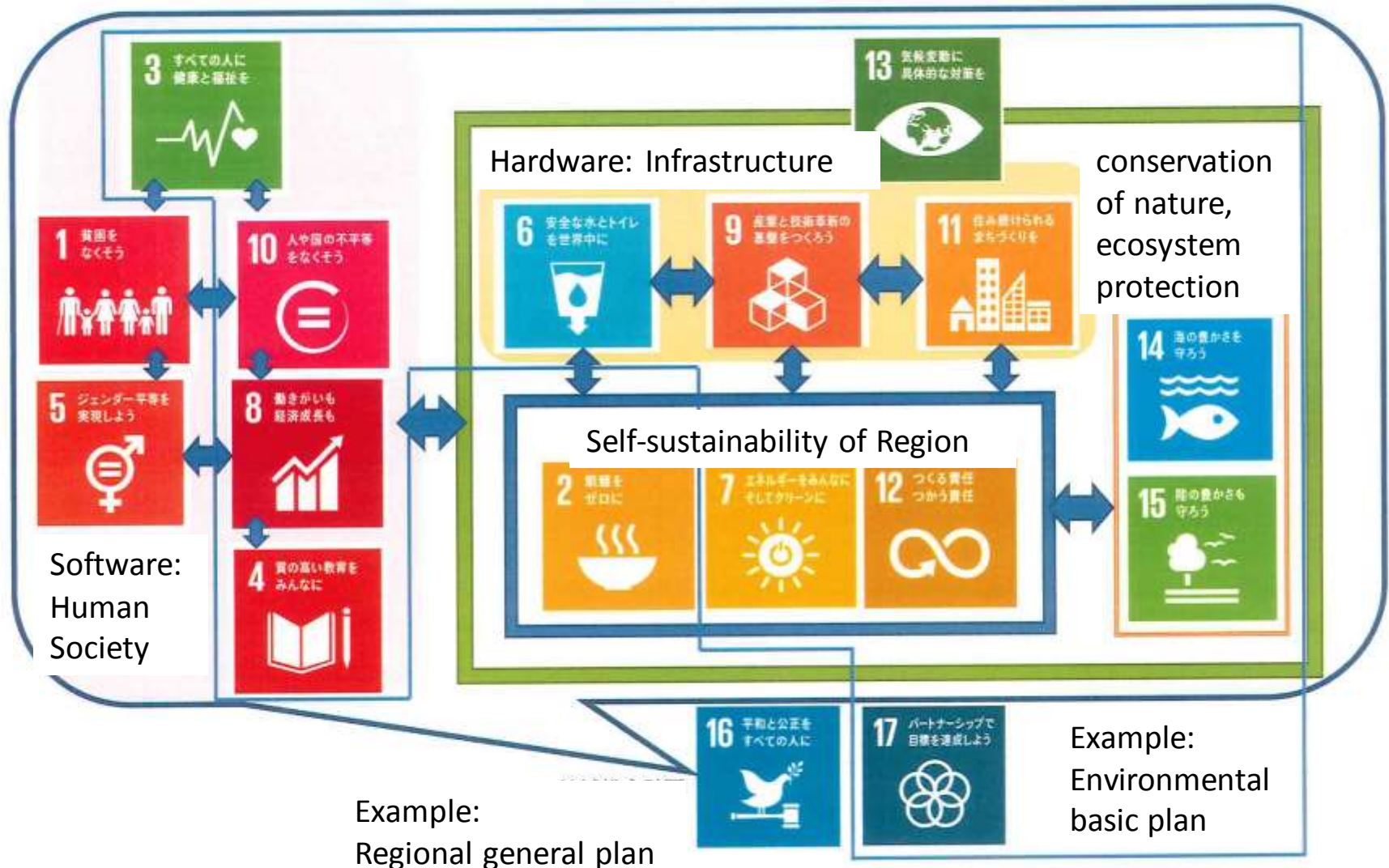


Food Security and SDGs

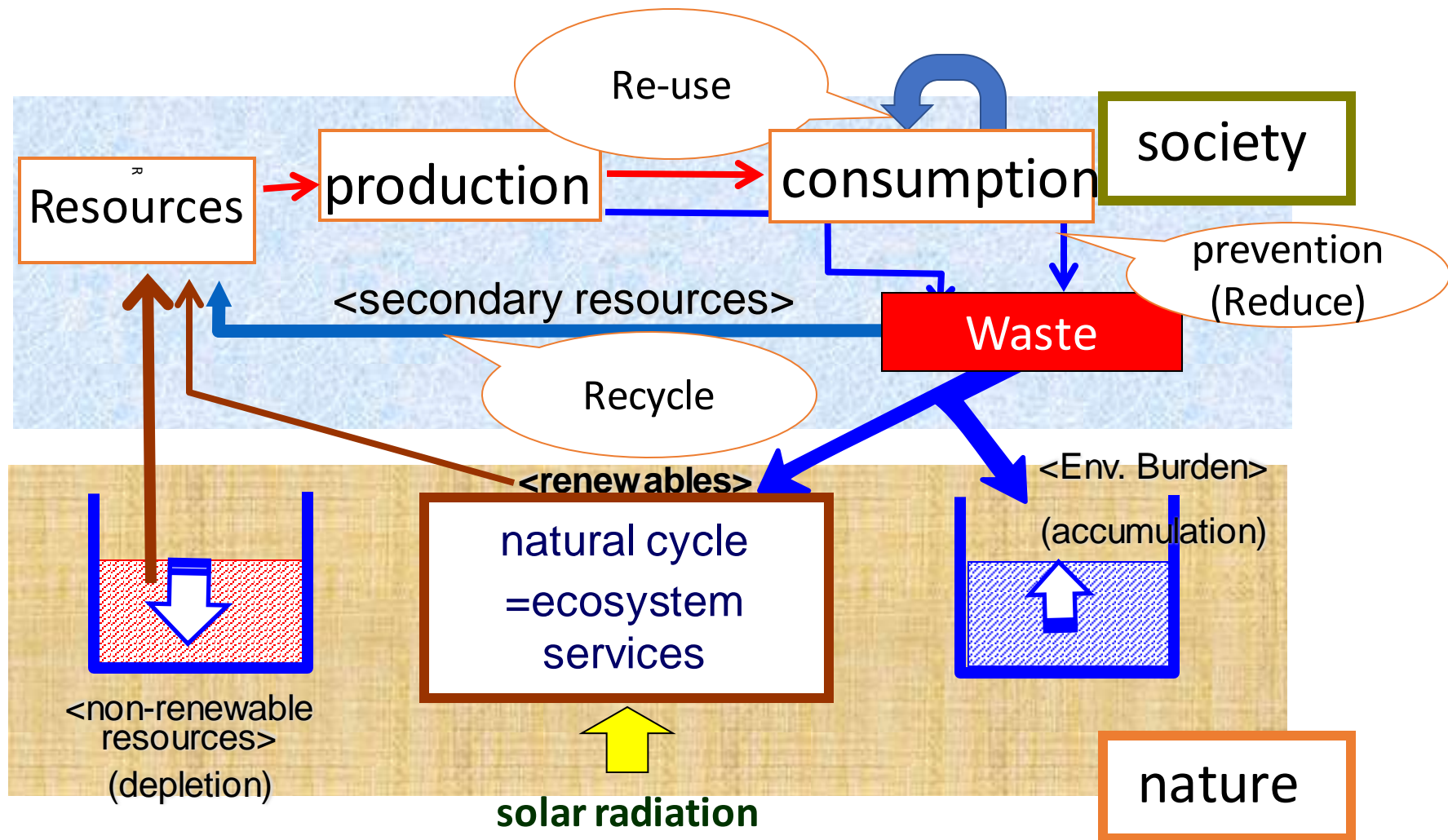
- Food security is required for local sustainability
 - SDG 2 Food Security • 14 Marine • 15 Land • 6 Water • 7 Energy • 13 Climate
 - 11 Resilient Cities
- Basis for food production
 - 12 resource use
 - 8 decent work
 - 9 innovation
 - "economic goals"



Sustainable region : city, municipality, country, etc.



SDG12: sustainable society and material cycles - "3R"



Goal 12 Ensure sustainable consumption and production patterns



Sustainable consumption and production
= Sound material cycle society
= 3R

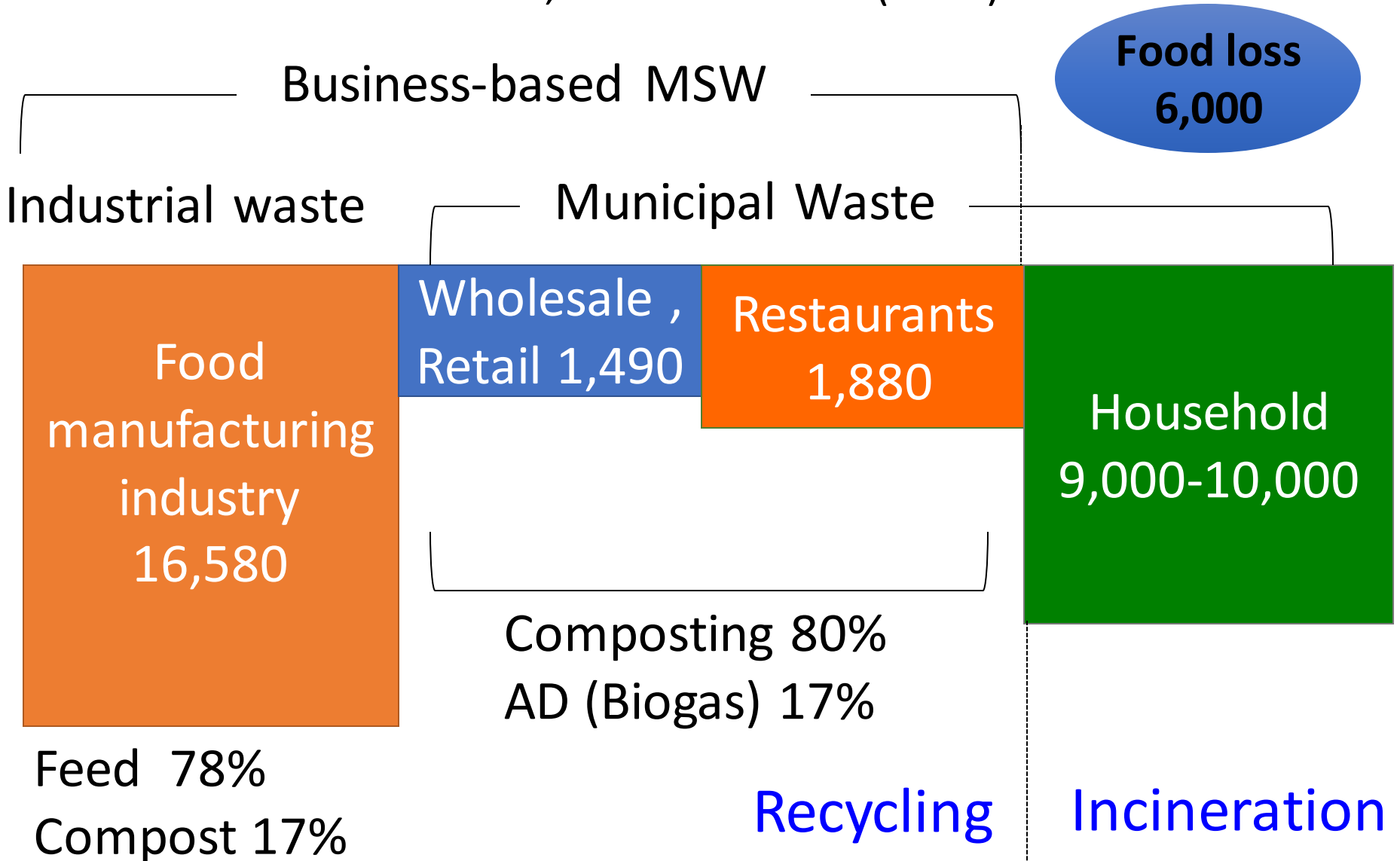
Local cycle of resources

SDG12.3

- By 2030, halve per capita global **food waste** at the retail and consumer levels and reduce **food losses** along production and supply chains, including post-harvest losses

Food waste treatment in Japan

unit: 1,000 metric tons (2013)



Food waste: avoidable and unavoidable parts

Avoidable - "could have been eaten"

- a lot of unopened food could be found in household waste, e.g. "expired" food
- some wasted food was even before "expiry" date

Unavoidable - peels, bones, shells, usually removed or uneaten.

expiry dates are just an indication. Many items could still be eaten safely (and tasty) after the expiry date



Avoidable food waste discharged from households

3R of food waste

*** Reduction is most important, especially for avoidable food waste**

* Reuse is not effective (e.g. donate to poor people)

- very limited capacity (does not solve waste disposal problem)

- does not solve fundamental problem of poverty

*** Recycling is appropriate for unavoidable food waste (e.g. composting)**

- Cooperation (e.g. sorted waste disposal) of citizen, farmers, and business is necessary. Change mindset



Important to make the system "visible" to get citizens' awareness

3 Factors to make society 3R

(Okayama,2007)

1. Trigger,

Crisis situation or some topic,

Problems Waste Management on policy, processing skill, economy and cost, etc.
Opportunities of getting attention about waste by citizens, actors

2. Leadership,

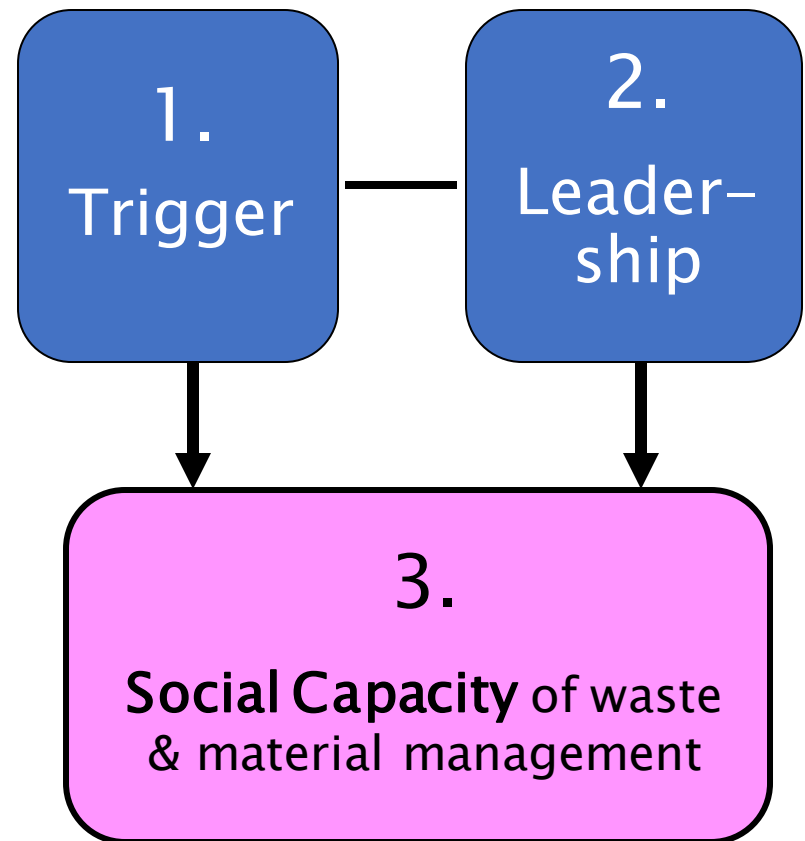
Top management of the leaders on municipality, NGO, businesses, schools, etc.

3. Social Capacity

Participation and partnership

Citizens' participation and partnership is the engine to change the society

They should be needed to establish and keep 3R system of municipality



Trigger: Nagoya City Waste Crisis and Preservation of Fujimae Wetland

Fujimae
wetland

- 1990's: Continuous increase of waste
- 1997: waste exceeds 1 million t/year
- 1998: shutdown of 1 incinerator
- 2000: predicted finished capacity of landfill
- Project of landfill construction at Fujimae Wetland → Fierce opposition of citizens (e.g. birdwatching group)
 - ★debate on "birds or waste"?
- 1999 Jan: Nagoya mayor turns down landfill plan at Fujimae wetland
 - ★the wetland was saved
- 2002 Nov. Registration of Fujimae Wetland as Ramsar site
- **How to deal with the waste? -> REDUCE!!**



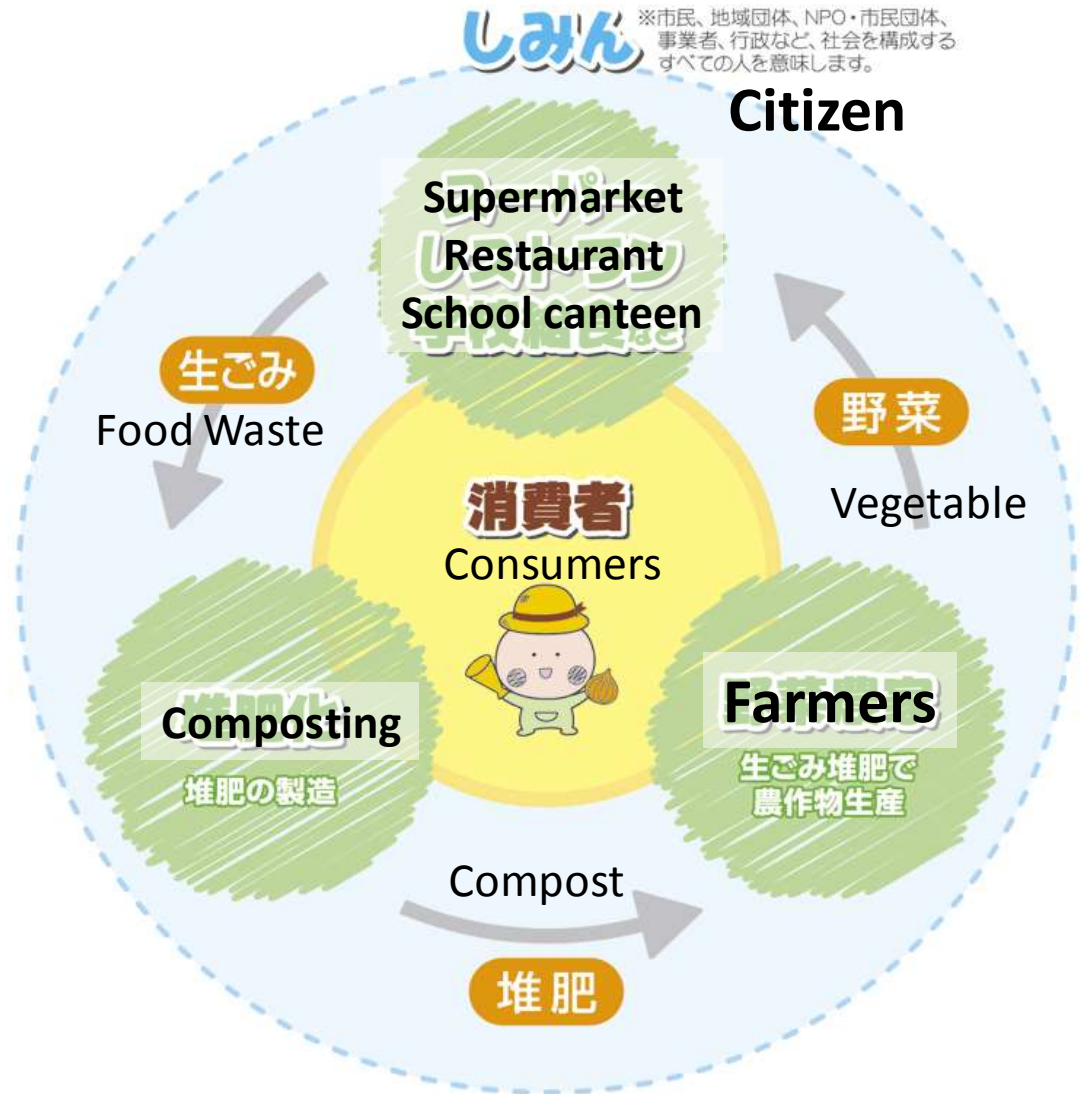
"Okaeri Yasai" Project: creation of local material cycle in Nagoya

- 2008 Feb **Project start**
- By naming the system and the products as "Okaeri Yasai", the loop becomes more **visible** to the citizens and stakeholders - raising **awareness**



- Not only composting the food waste, but also **connecting** consumers, retailers and farmers through the use of compost, thus **completing the loop**

→Circular Economy





"Okaeri Yasai is growing in this field"

("Okaeri Yasai" means "Welcome back, vegetable!")



Sale of
Okaeri Yasai at
a supermarket

ました。給食では、関東煮の
中に入っています。



ては、煮なますとも呼ばれています。

【学校給食週間】特別献立

25日(月)実施



麦ごはん・牛乳・いかとさといもの照り煮・煮あえ・焼きのり・みかん

1月24日から30日までは、学校給食が始まったことを記念する「学校給食週間」です。
いかとさといもの照り煮は昭和20年代に実施されていた献立です。

「みんなで食べる! なごや産」の日

15日(金)実施



このマークのついた日は、港区南陽地区でとれた米「あいちのかおり」と、緑区でとれた
ブロッコリーを使っています。

ブロッコリーは、給食、名古屋市内のスーパーや家庭などから出された生ごみを
原料にした堆肥を使って、名古屋市内の農家で作られた野菜です。このような野菜
は、「おかえりやさい」といい、名古屋市のごみ減量にも役立っています。



この印刷物は、古紙パルプを含む再生紙を使用しています。

(From the menu list of Nagoya City primary school)

Item with this mark uses rice produced in Minato-ward, and Broccoli produced in Midori-ward.

Broccoli is produced with compost made from waste of shops and homes in Nagoya. This is called "Okaeri Yasai". It also contributes to reducing waste in Nagoya City



Pupils eating
Okaeri Yasai at school

Cooking class using
Okaeri Yasai



Consumers visiting
farmers growing
Okaeri Yasai





Thank you for your attention!

