

Waste Recycling Group

~ Promoting smooth recycle system in
Asia ~

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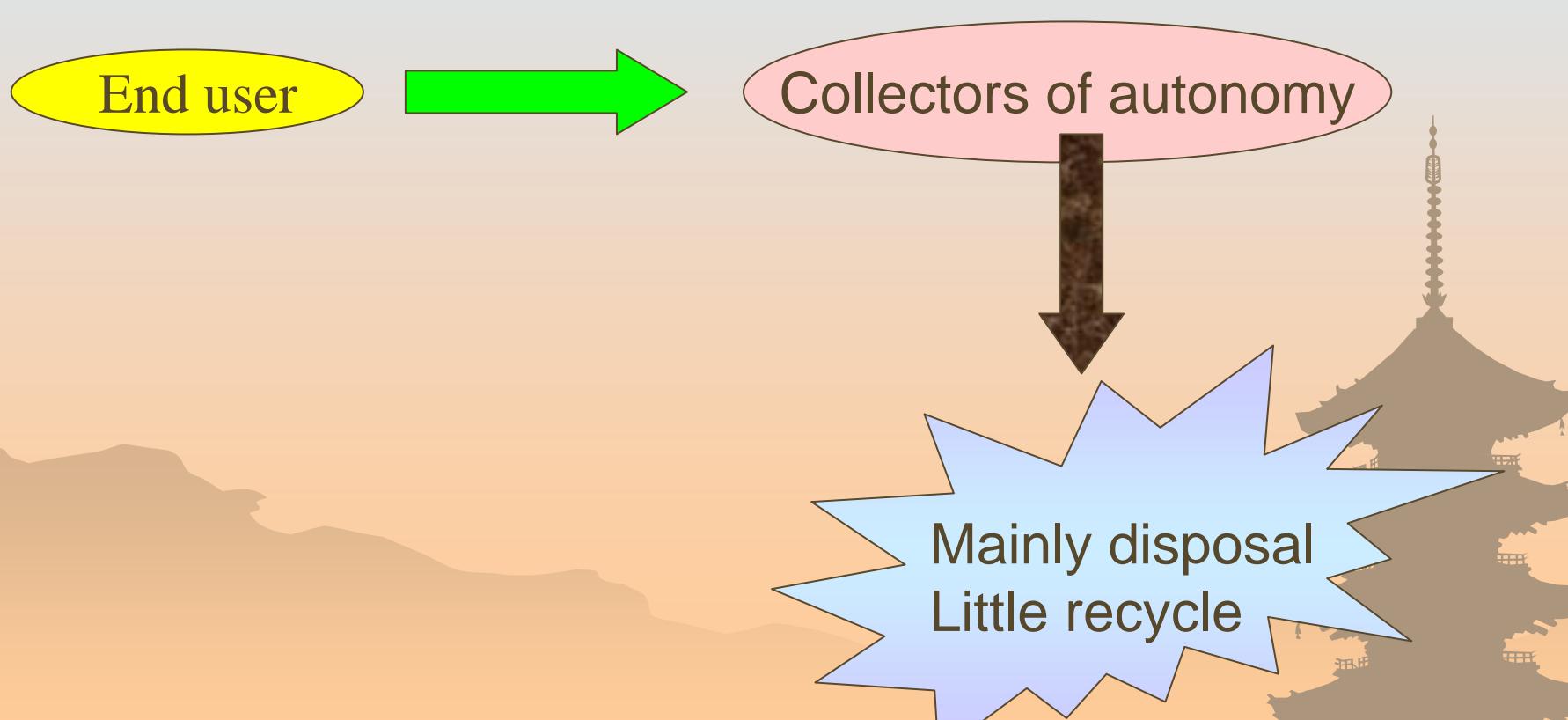
Shigetaka Udagawa

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Flow of the presentation

- ✿ Japanese recycling law of electric appliances
- ✿ Accomplishment of the law
- ✿ Factor of decrease in collection units
- ✿ Criticism against exports
- ✿ Solutions~encouragement of support mechanism in Asia~

conventionally



Background of Electric Home Appliance Recycling Law

Why was the law made?

Shortage of landfills

Limited natural resources

Recycle was very important!!

EPR

(Extended Producer Responsibility)

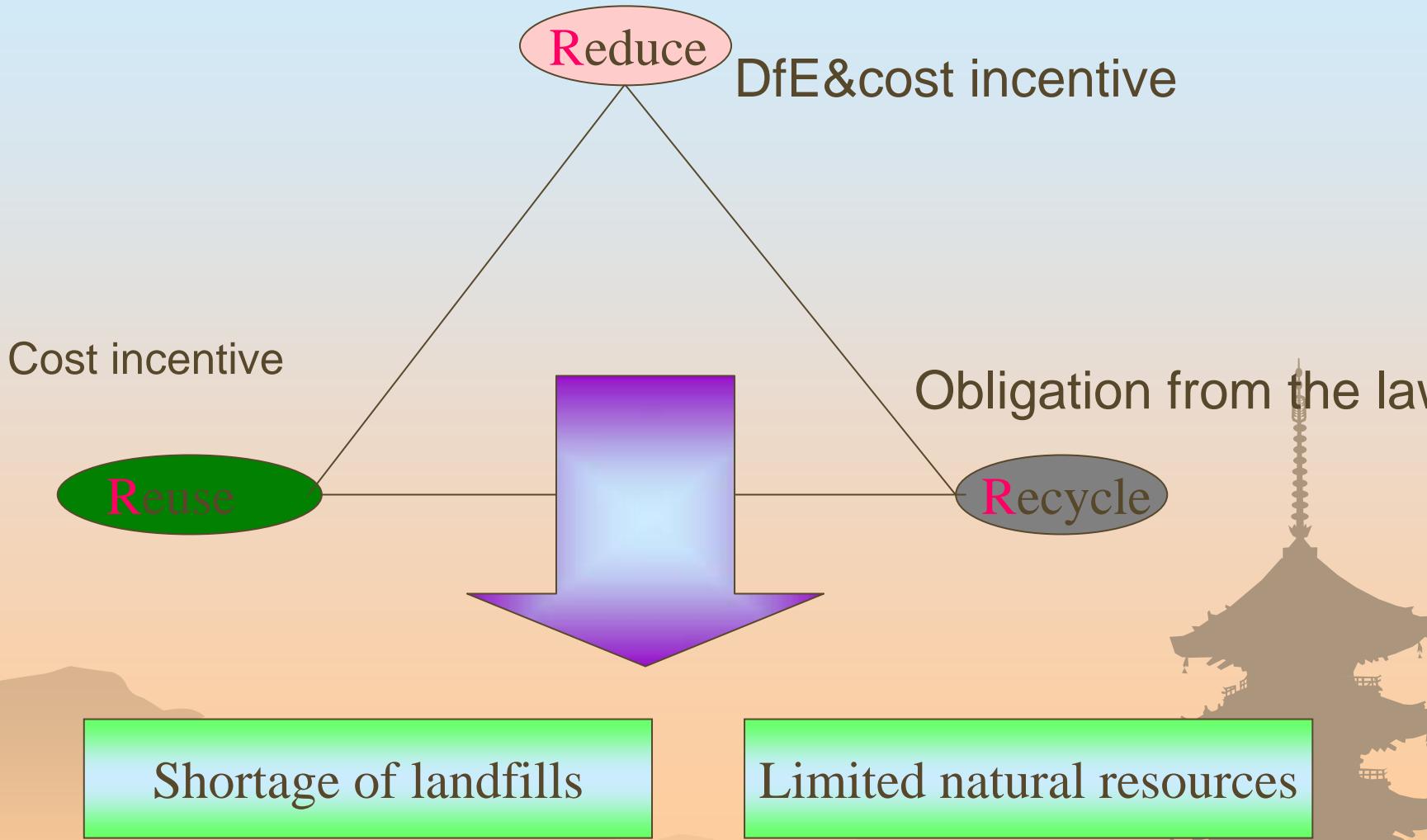
invisible cost  visible cost

producers begin to make

{

- easier recyclable products
- long lived products

3R



Why Electric Home Appliances?

It is few weight in all wastes

But...



metal resources
(including many useful metals)

contamination
(including mercury)

cf. Rohs



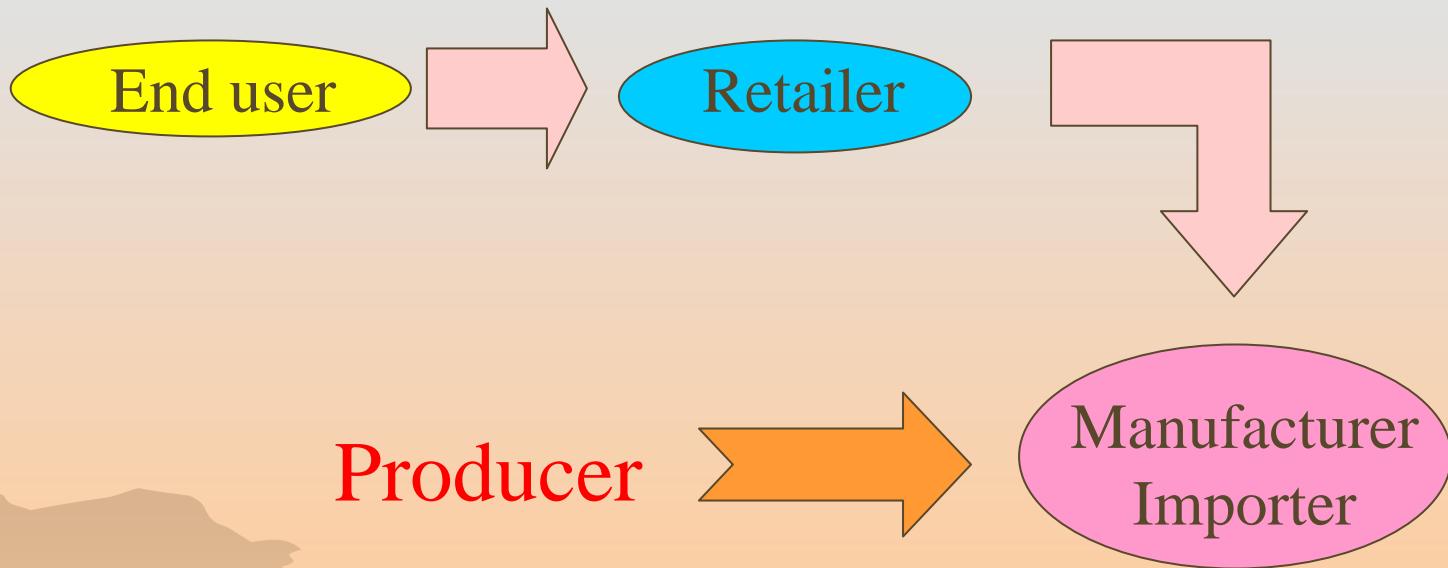
Contents of this law

The law has come into force at 1st April in 2001

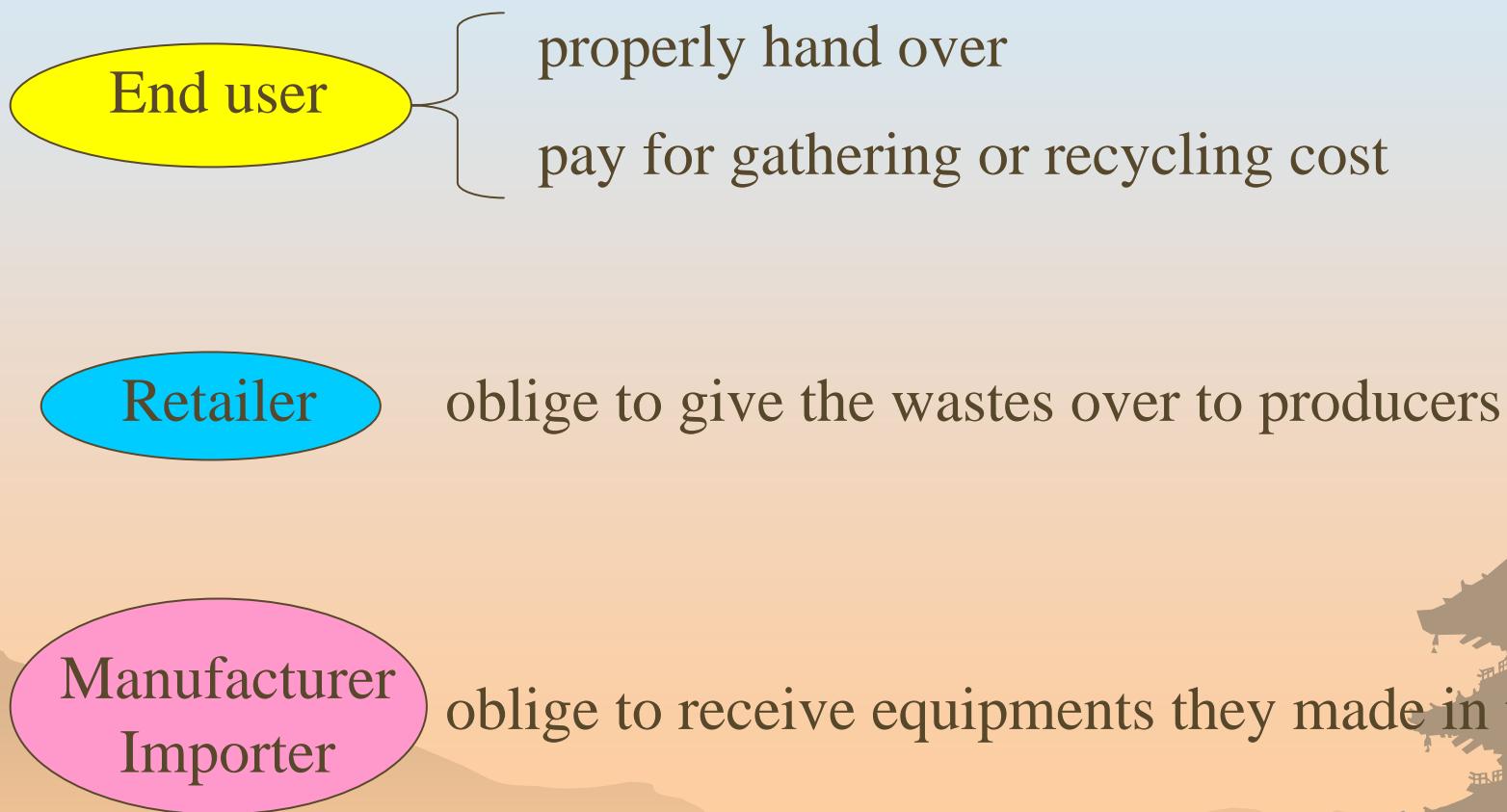
Targets & Recycling rate	TV	washing machine
	55%	50%
	refrigerator	air conditioner
	50%	60%

Contents of this law

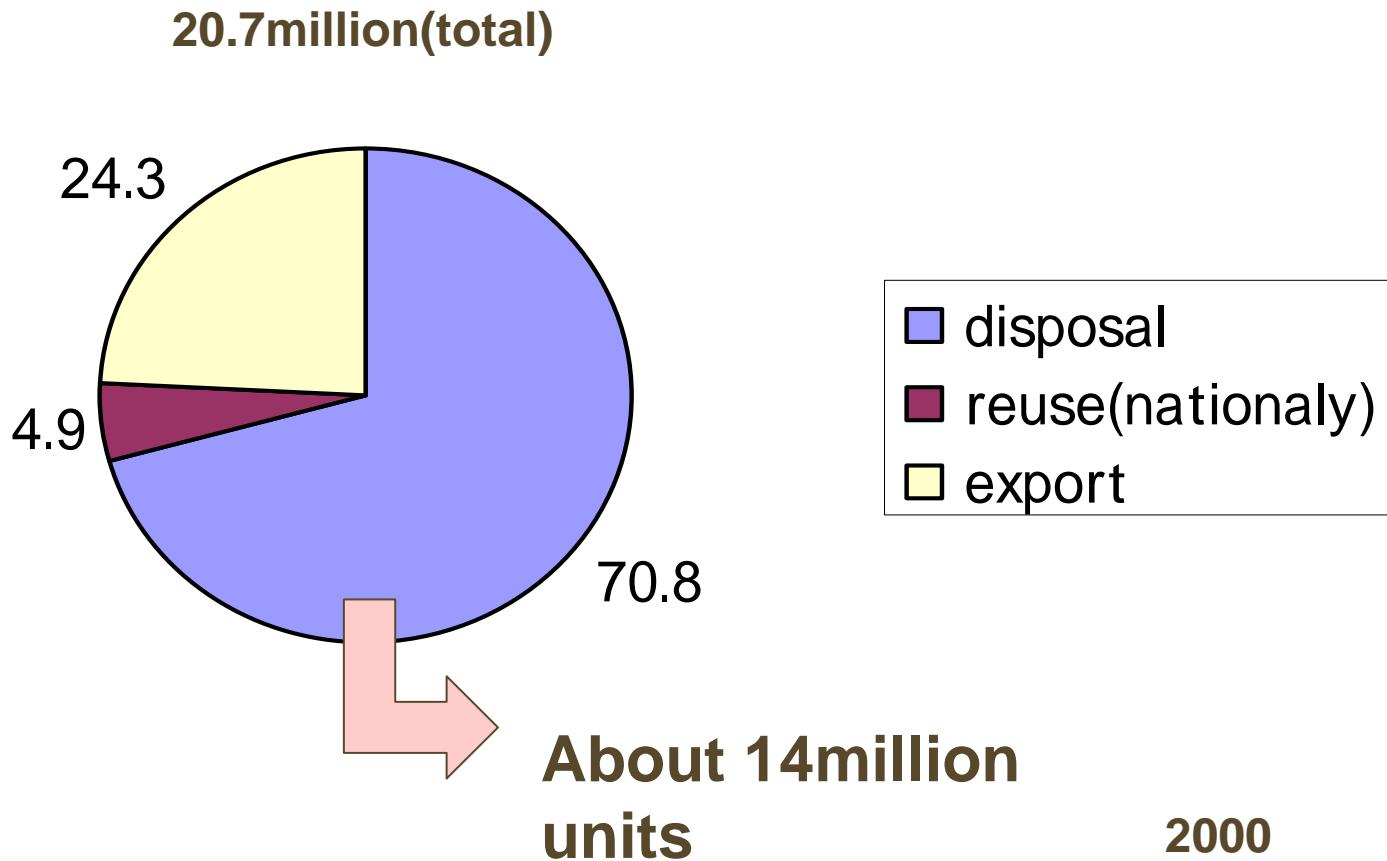
flow of appliances



Role of each actor

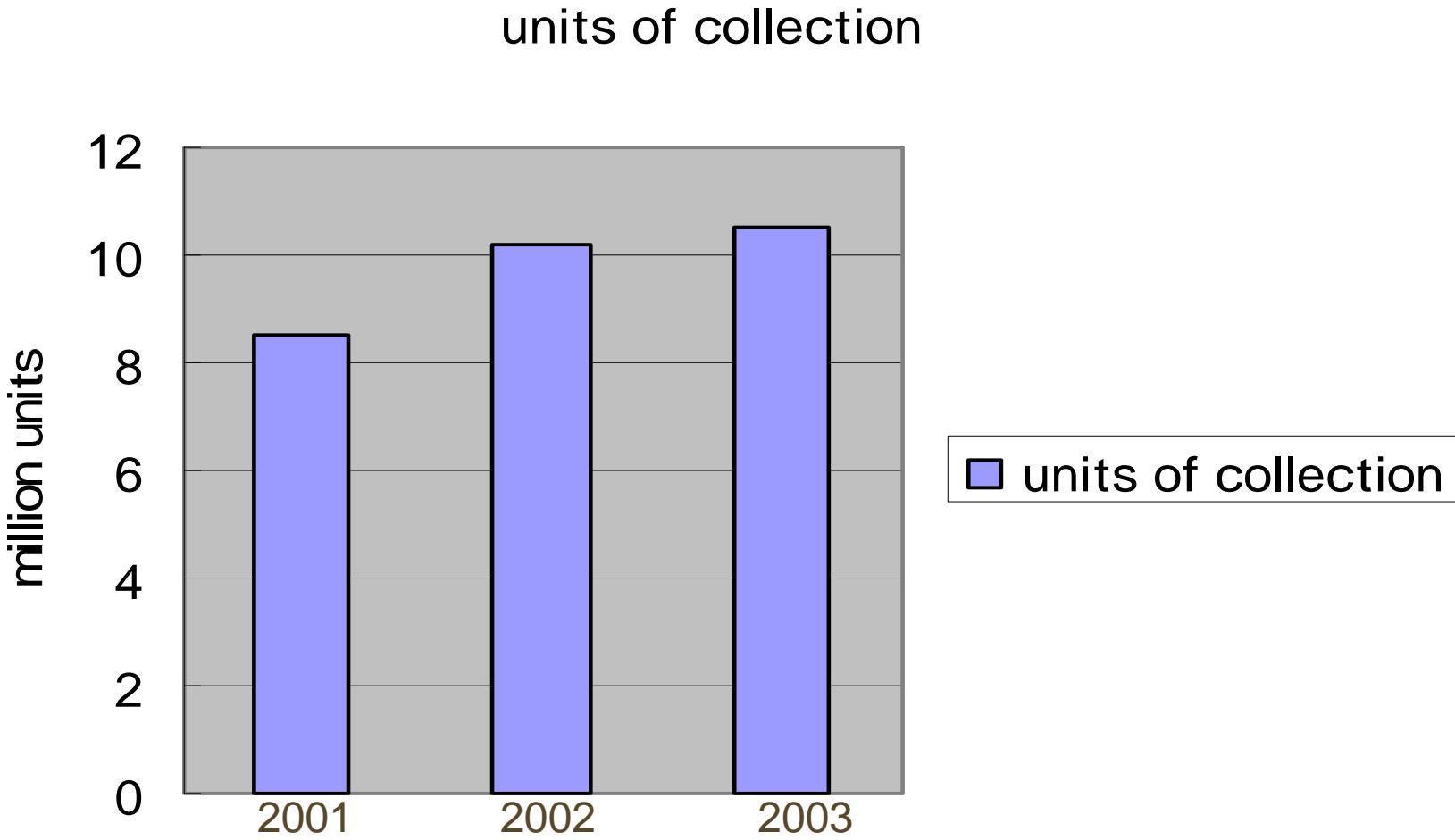


Before the law



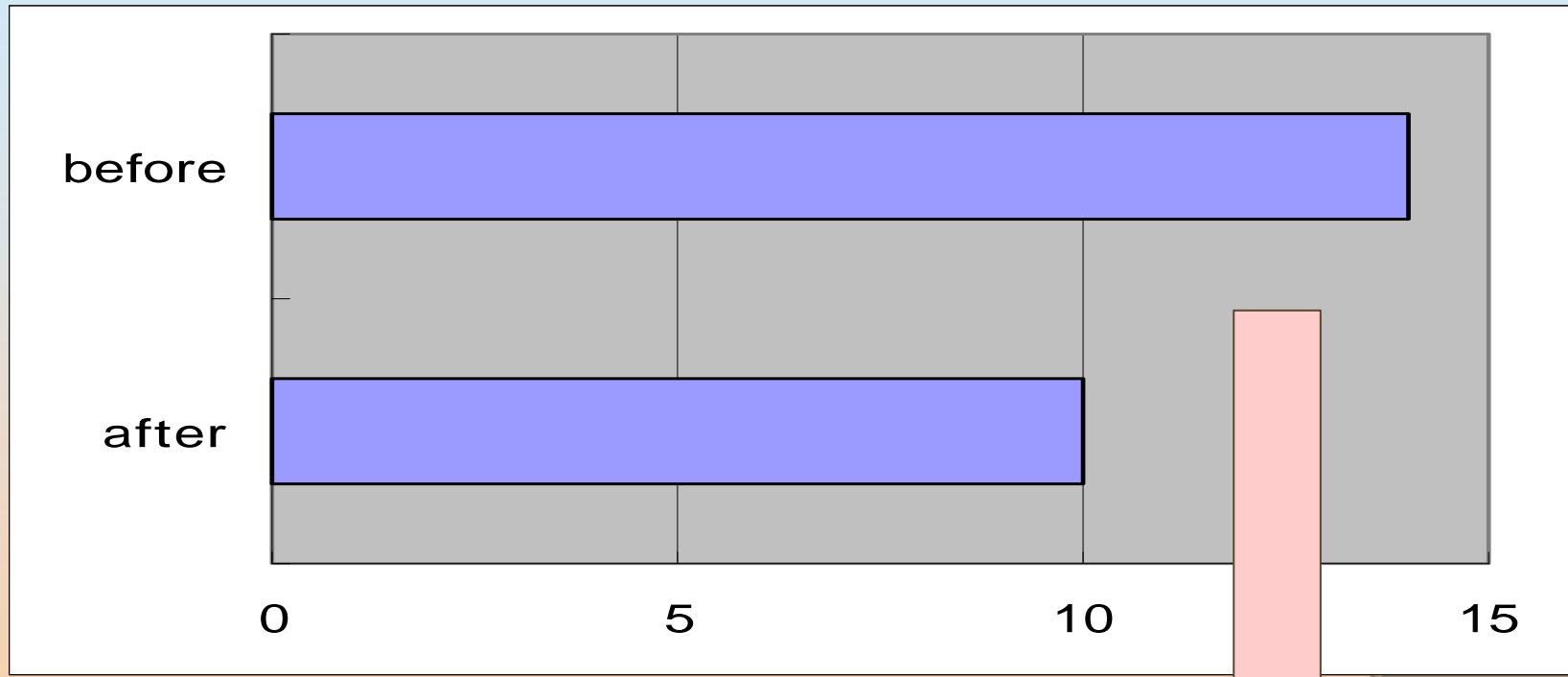
Source: Japanese ministry of economy, Trade and Industry
(following meti)

After the law



Source: association for Electric Home Appliances

accomplishment of the law



Source: Japanese ministry of economy, Trade and Industry
, hearing from association for Electric Home Appliances

Decrease of 4 million units

Why decrease?

Economical incentive !

Factor of decrease

• *Units disposed*

• *Divergence of regular route*

Factor of decrease

) longer use

) reuse(in Japan)

) illegal disposal

) export as used appliances



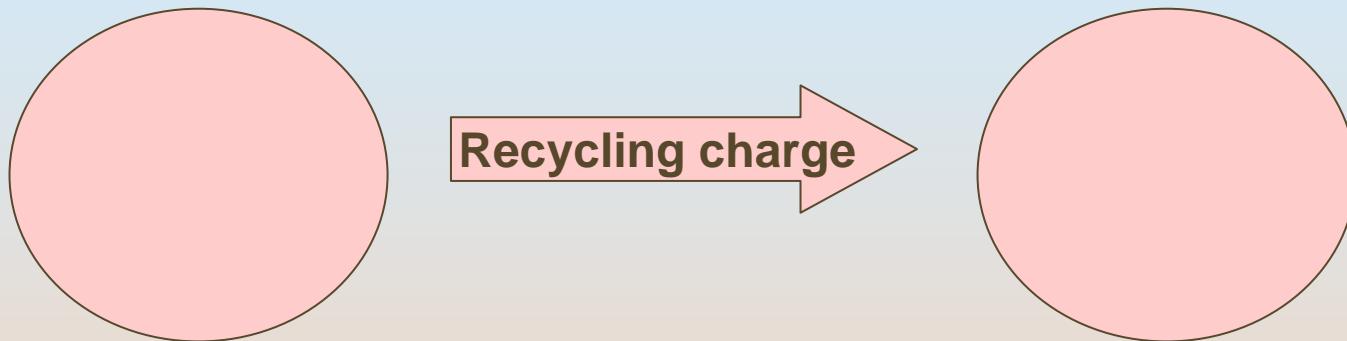
()longer use presumed average usage period(year)

	1997(year)	2002(year)	changes
television	11.8	12.5	0.7
refrigerator	12.1	13.5	1.4
washing machine	10.9	11.2	0.3
air conditioner	15.6	13.8	-1.8

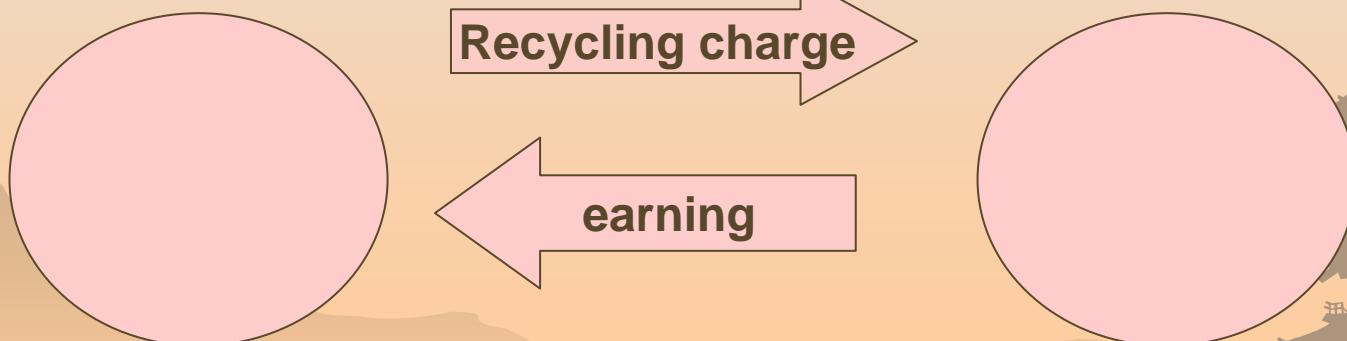
Source: meti

() Reuse in Japan

Formal route



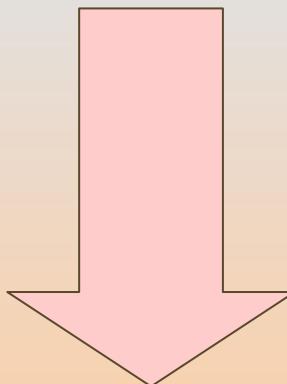
reuse



Good point

These 2 ways

Avoidance of potential disposal



Lead to

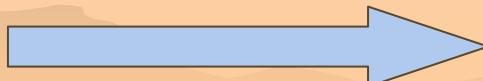
Efficient use of limited resources

() illegal disposal

2001 (year)	2002(year)	2003(year)
127,429	164,678	174,934

..... slight figures compared to collected units

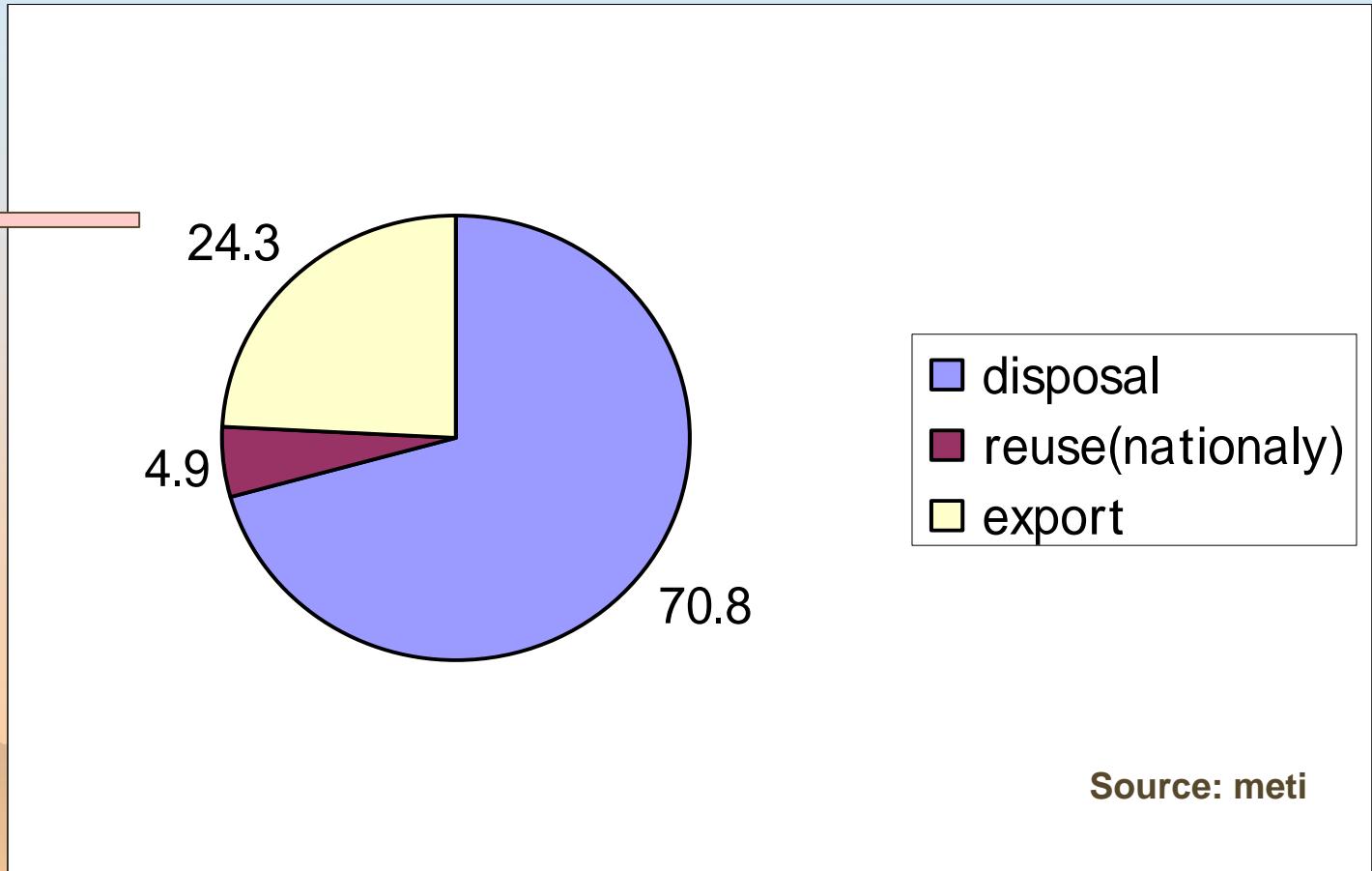
$$\frac{174,934}{10,462,000} = 0.0167$$



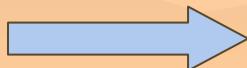
Slight figures

Export as used appliances (before the law)

About
5million
units



24.3% > 4.9%



Large figure

() Stream for export

Essentially

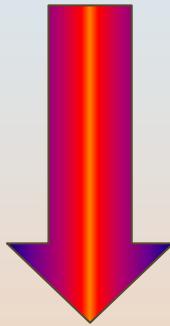
Achieve Efficient use of limited resources

But

severe criticisms burst

Criticism for export

bad operation in Asia



**Strongly criticized by NGOs
and developing countries**

What kind of operations are being exercised?

Look at the actual situations



Look at the actual situations

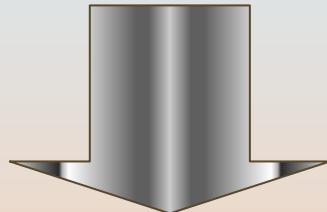


Look at the actual situations



Tragic state of treatments

Terrible treatments



Bad for

Workers' health
Surrounding environment

Asian domestic market

Developed countries

E-waste

treatments in Asian countries

Deemed as the **cause** of
Bad impacts

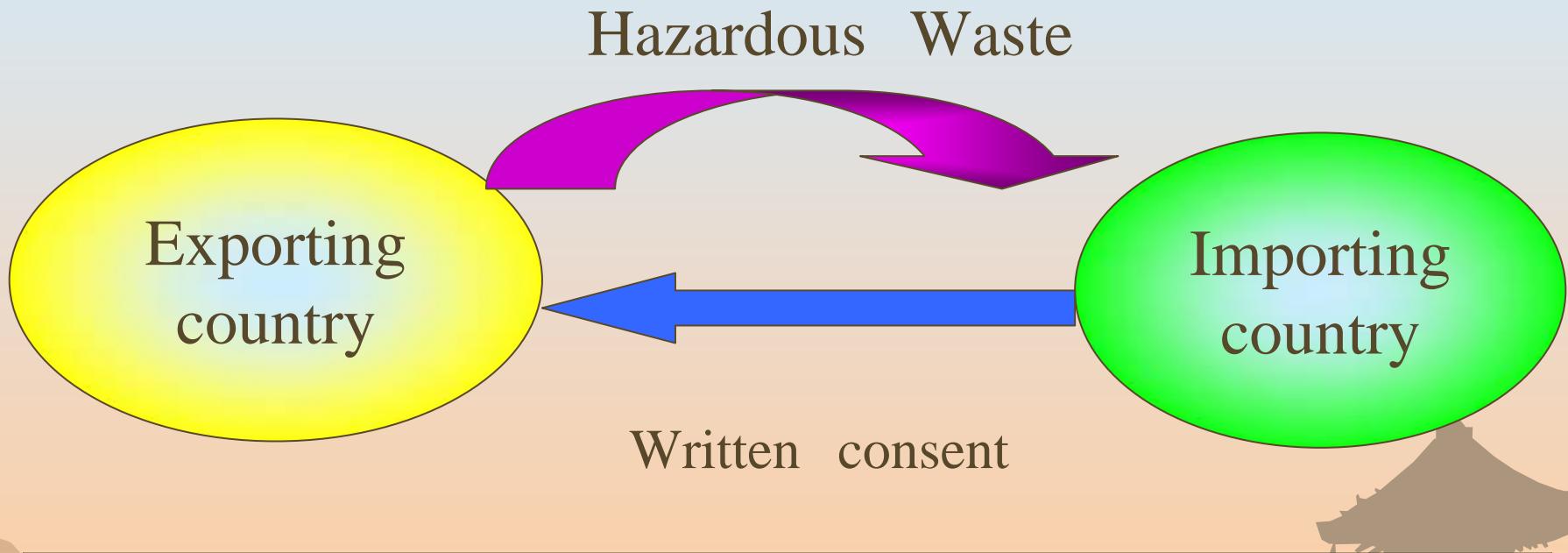
Bad impacts

Bitterly criticized

Movements for
import ban

accelerated

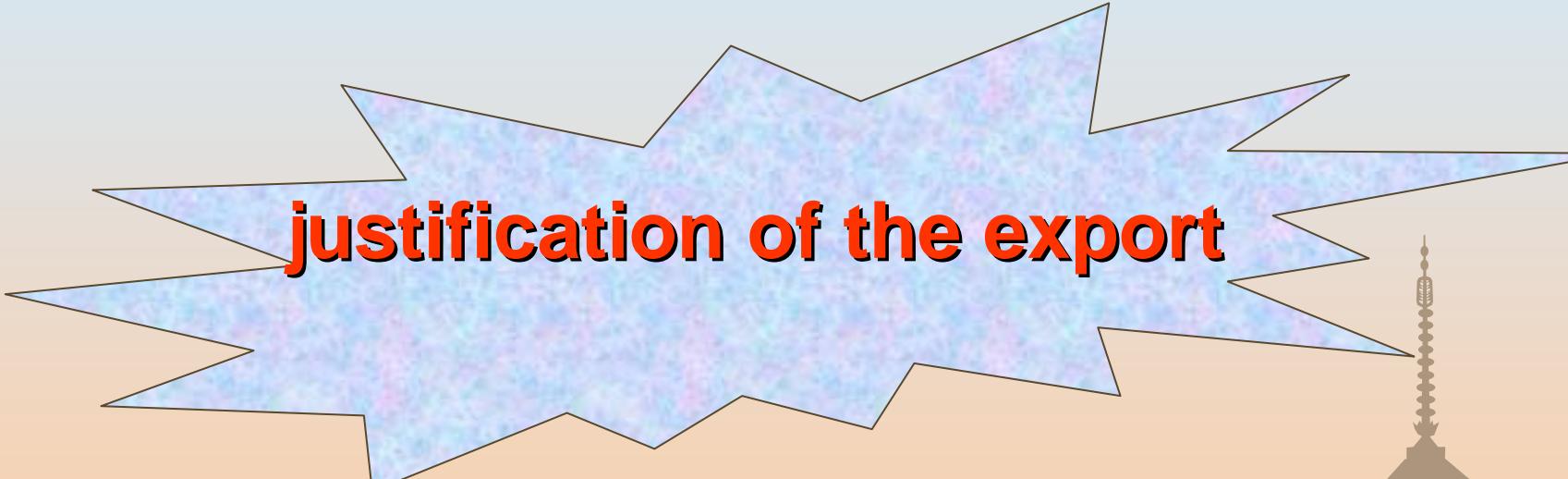
Basel Convention



Clarify the location of hazardous wastes

Basel Convention

just a control

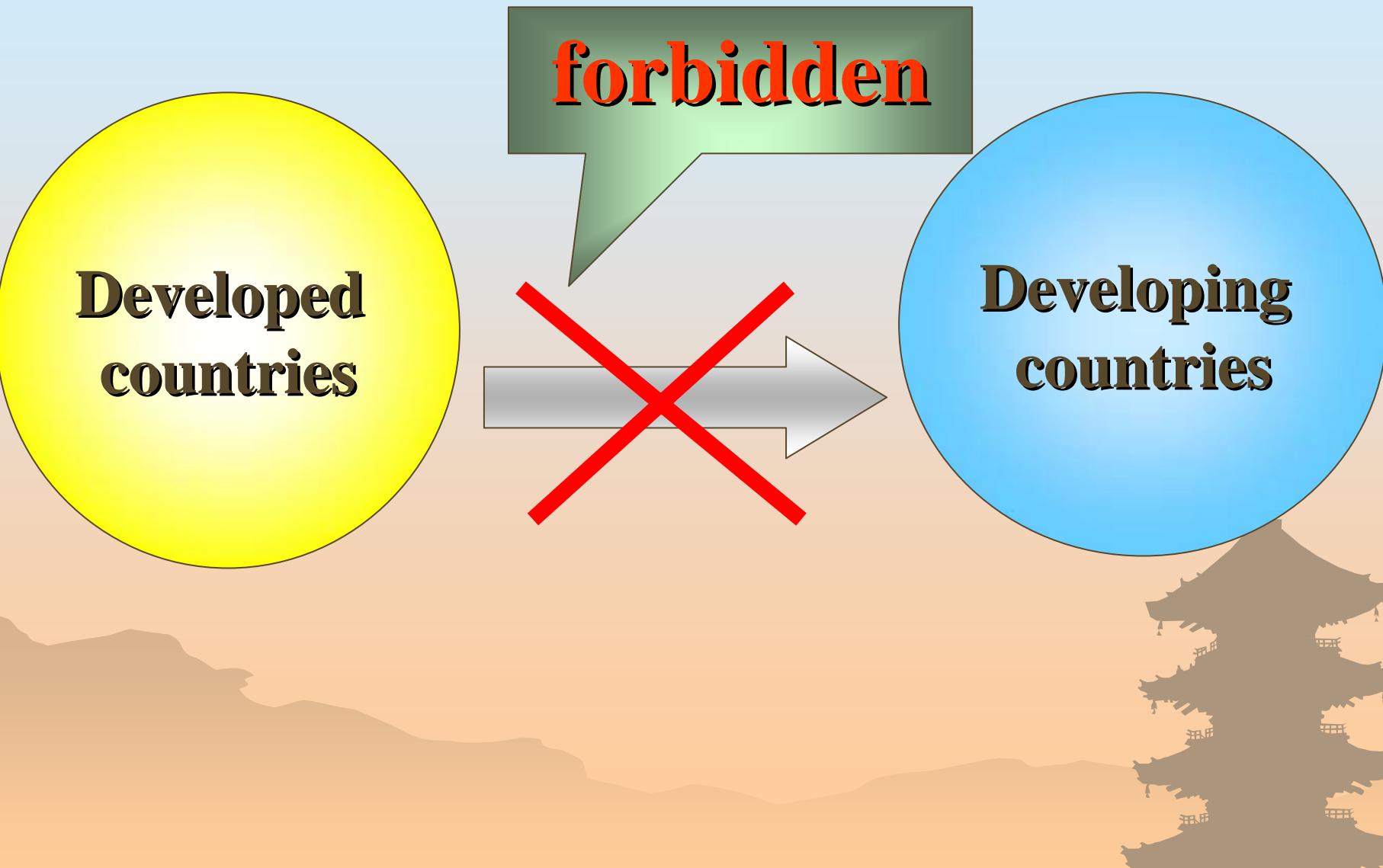


justification of the export



towards the total ban

Basel Ban Amendment



What are the consequences of the export ban ?

Bad for

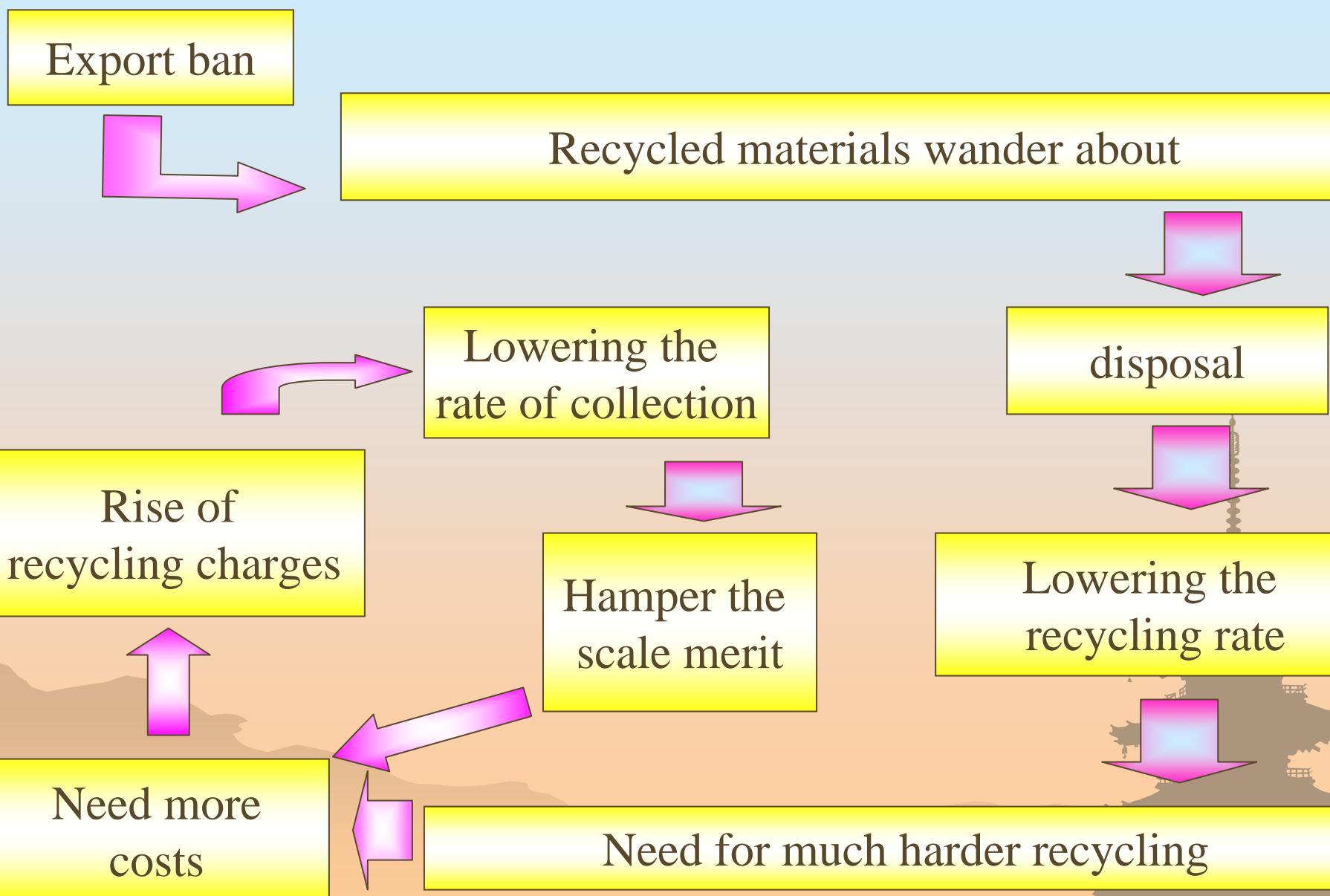


exporting countries

importing countries

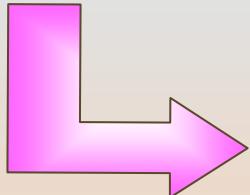


Negative spiral from the export ban



Negative effects for importing countries

Import ban



Decreased supply of secondary materials

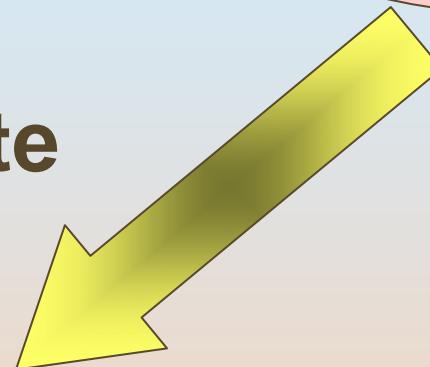
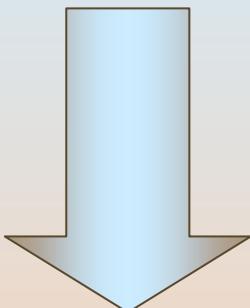
Soaring the price of secondary materials

Shift for the virgin materials

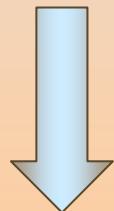
Asian domestic market

Developed countries

E-waste



treatments in Asian countries

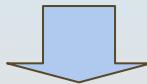


Bad impacts

*This
Is the
problem*

Solution

Recycling system construction

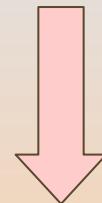


voluntary effort must be essential

- Limited natural resources
- Shortage of landfills
- Health problem
- Advantage of prior action



Is it possible to act voluntarily?



Profitability is the key point

profitability

Changing cost

Ex) worker's wage

Wage may be low relatively

benefit for selling recycling resources



Changing cost can be very low

Fixed cost

Ex) land cost, construction cost

Fixed cost problem

Fixed cost

Land cost

Construction cost

these costs can be low comparatively

but

Companies recover fixed costs for a long time

Are companies willing to construct recycling system?

Japan

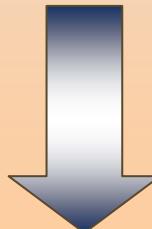
ECO TOWN project



To spread recycling system

Supported by Japanese government

Maximum 1/2



Expand the support to Asian countries

How about doing ECO TOWN project in Asia?

Beneficial for Japan?

Able to accept this project?



Beneficial for Japan?

ODA may not be for only Japan

Leadership can be put out in the world

Effective use of resources can be achieved

 **this situation brings benefit to Japan**

In the long run

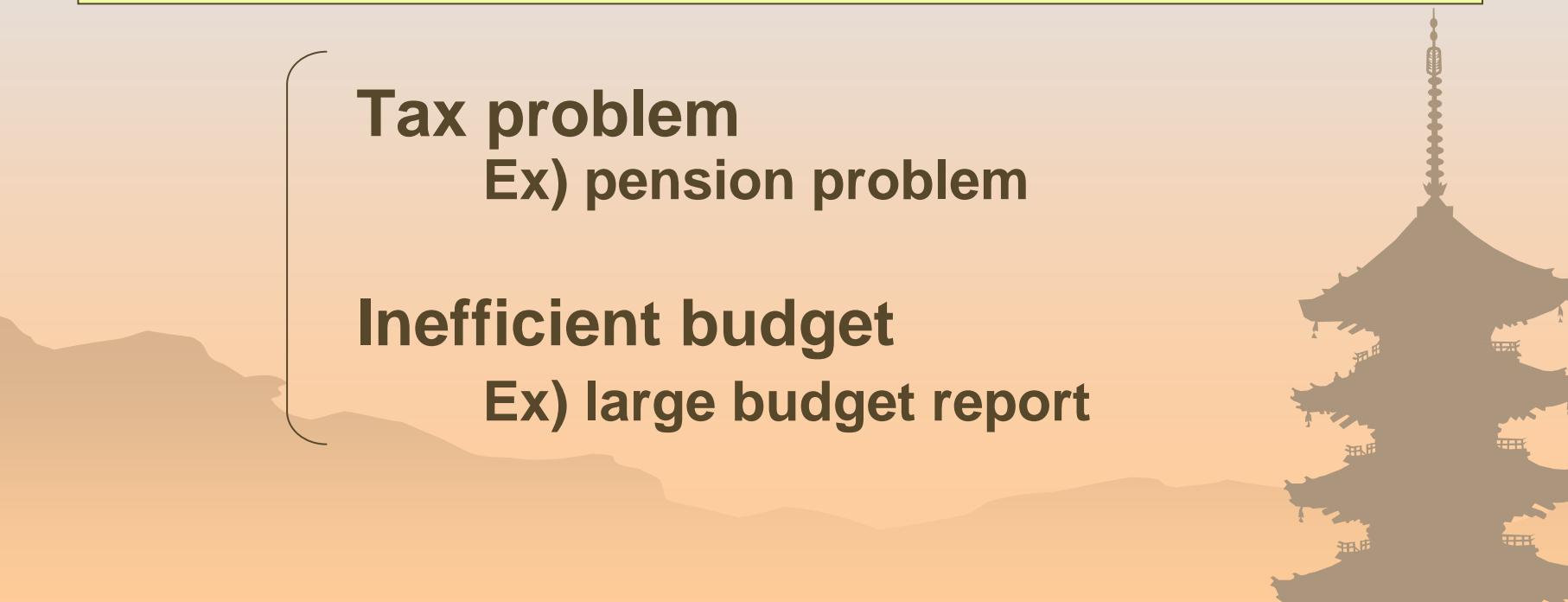
Able to accept this project?

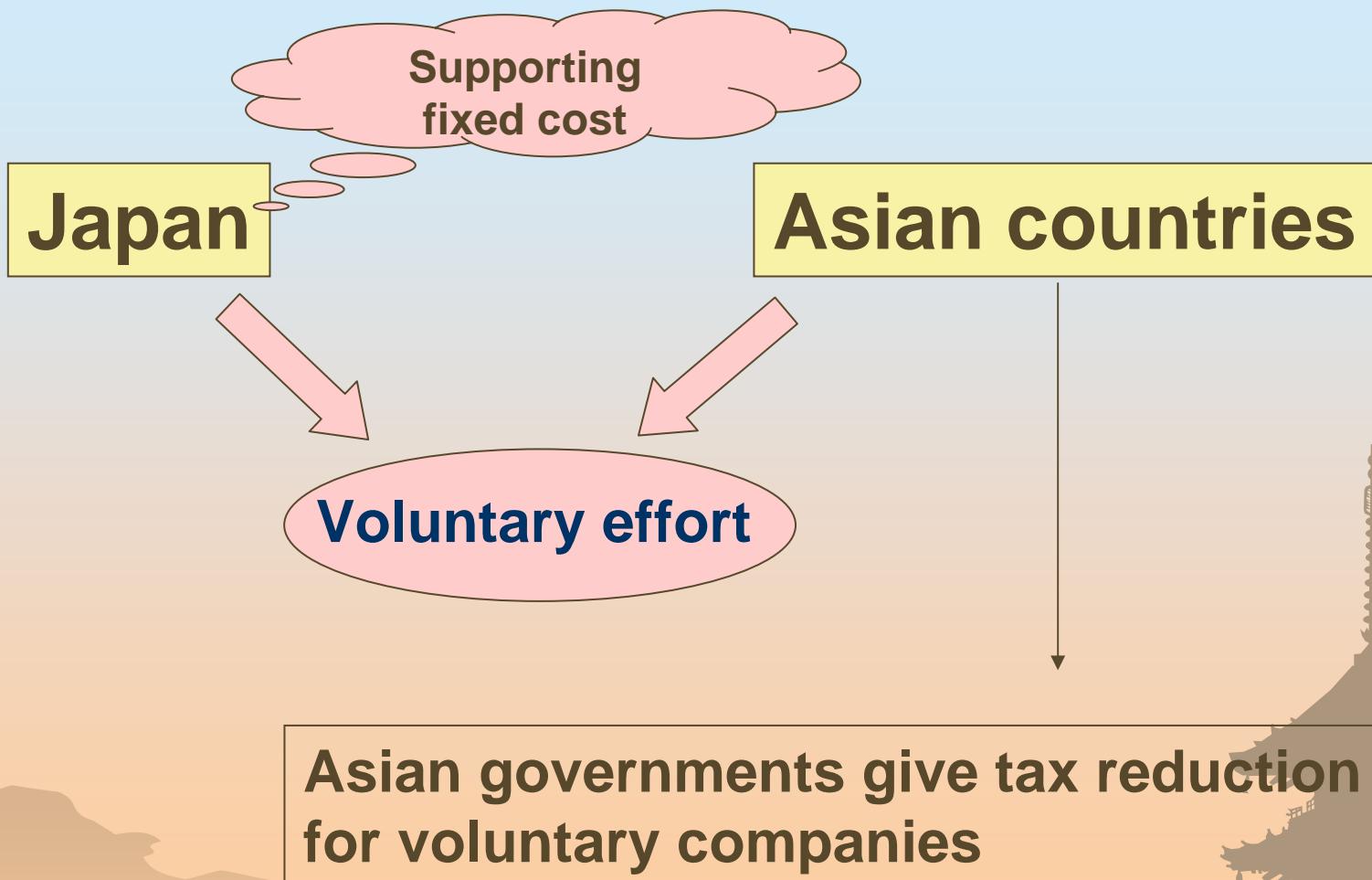
Before criticize this support

useless expenditure should be reconsidered

Tax problem
Ex) pension problem

Inefficient budget
Ex) large budget report





Thailand government puts first priority on recycling project

Stream for constructing waste management system



Recycling system

