

Waste Recycling Group

~ Promoting smooth recycle system in
Asia ~

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A silhouette of a traditional Japanese pagoda with multiple tiers and a spire, set against a background of a sunset or sunrise over mountains. The pagoda is positioned on the right side of the slide, and the background features a gradient from light blue at the top to orange at the bottom, with dark silhouettes of mountains at the bottom left.

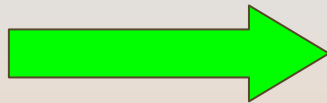
Flow of the presentation

- ❁ 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

End user



Collectors of autonomy



Mainly disposal
Little recycle

Background of Electric Home Appliance Recycling Law

Why was the law made?

Shortage of landfills

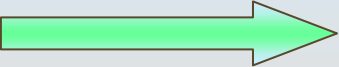
Limited natural resources

Recycle was very important!!



EPR

(Extended Producer Responsibility)

invisible cost  visible cost

producers begin to make

- easier recyclable products
- long lived products



3R

Reduce

DfE&cost incentive

Cost incentive

Reuse

Obligation from the law

Recycle

Shortage of landfills

Limited natural resources



Why Electric Home Appliances?

It is few weight in all wastes

But...

metal resources

(including many useful metals)

contamination

(including mercury)

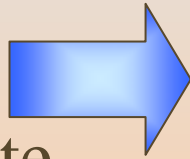
cf. Rohs



Contents of this law

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

Targets
&
Recycling rate



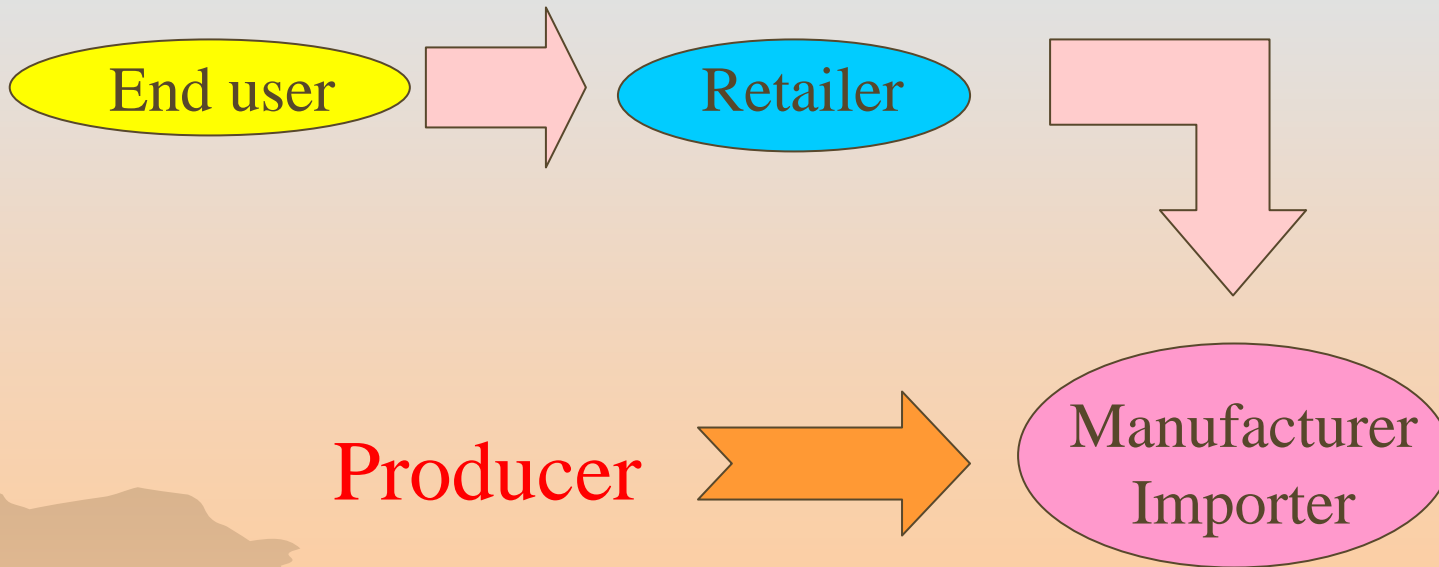
TV
55%
refrigerator
50%

washing machine
50%
air conditioner
60%



Contents of this law

flow of appliances



Role of each actor

End user

properly hand over
pay for gathering or recycling cost

Retailer

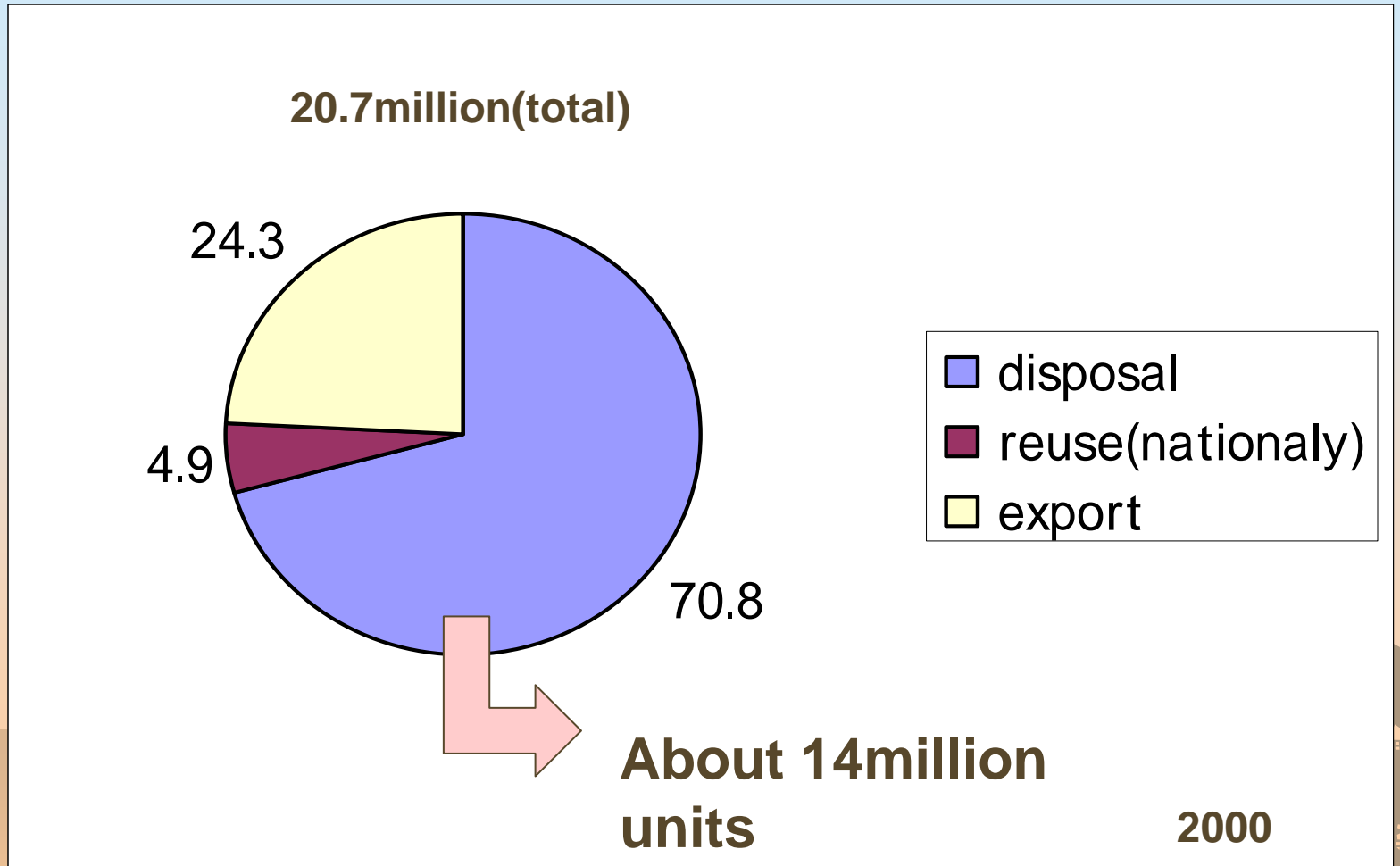
oblige to give the wastes over to producers

Manufacturer
Importer

oblige to receive equipments they made in the past

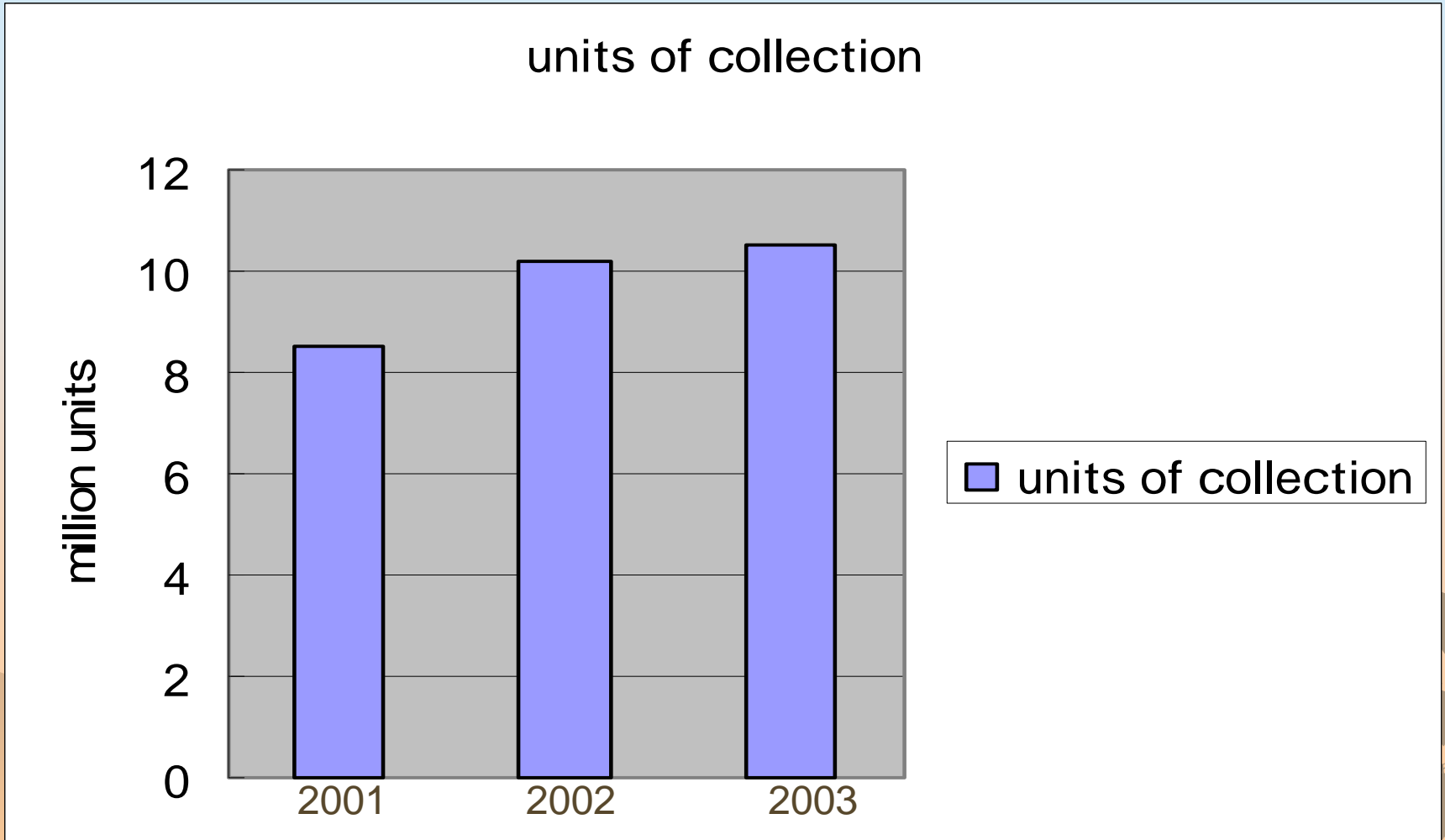


Before the law



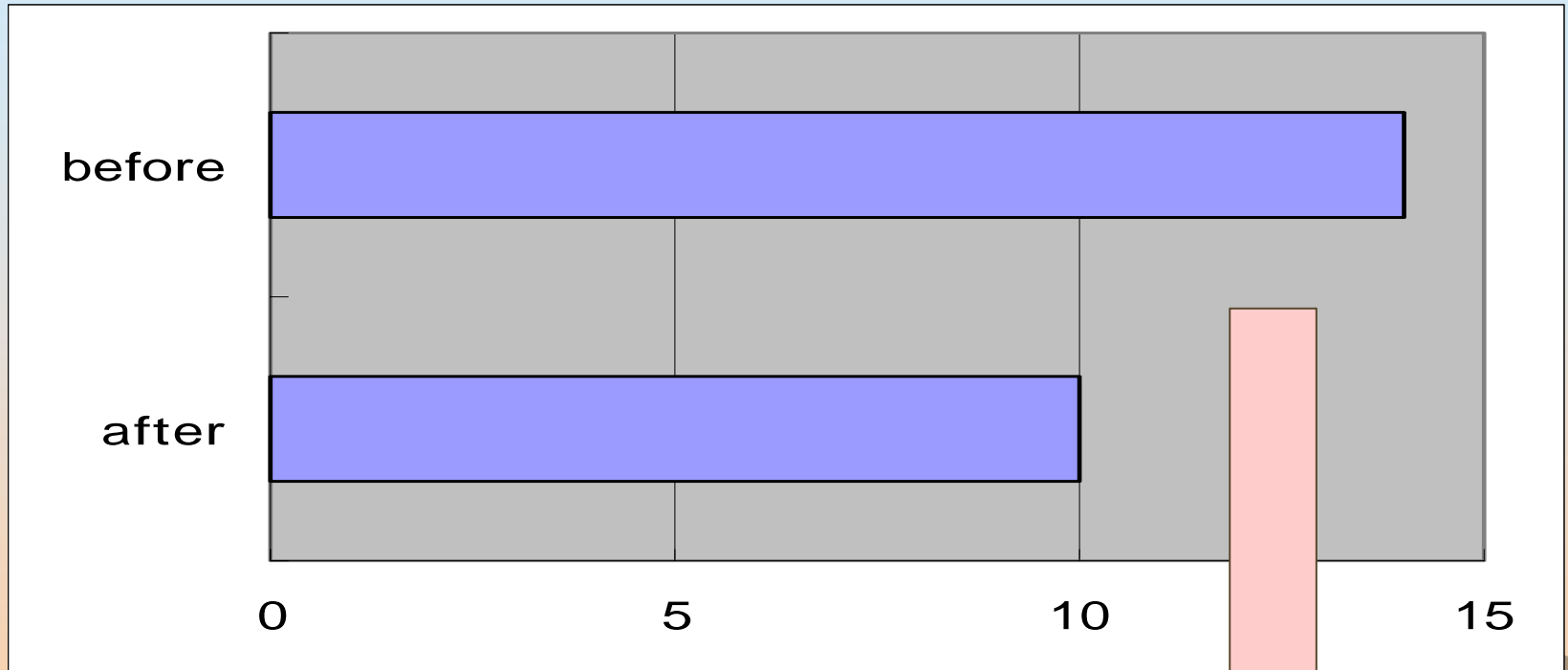
Source: Japanese ministry of economy, Trade and Industry (following meti)

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



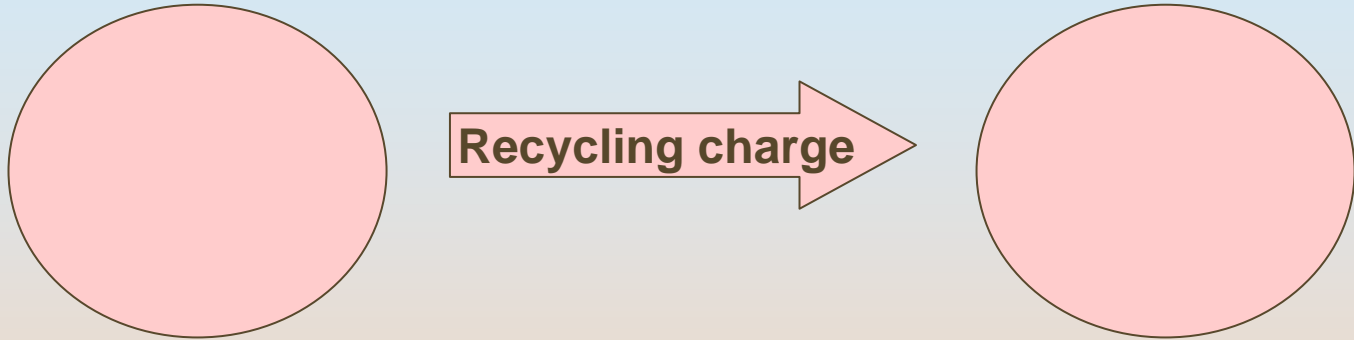
() longer use

presumed average usage period(year)

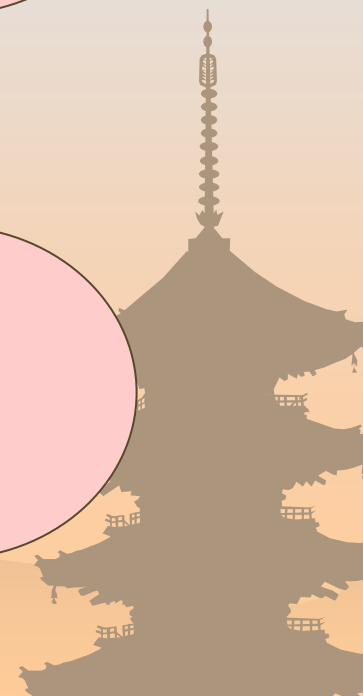
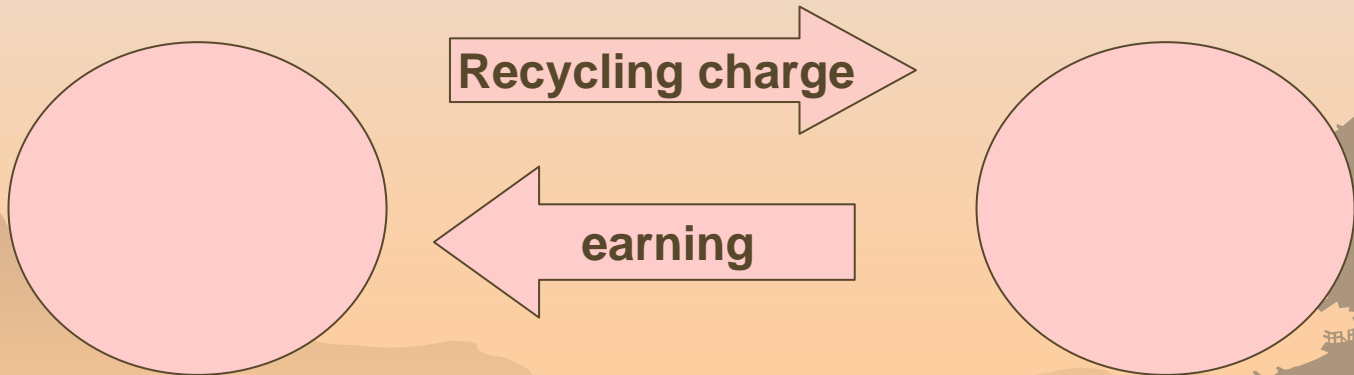
| | 1997(year) | 2002(year) | changes |
|-----------------|------------|------------|---------|
| television | 11.8 | 12.5 | 0.7 |
| refrigerator | 12.1 | 13.5 | 1.4 |
| washing machine | 10.9 | 11.2 | 0.3 |
| air conditioner | 15.6 | 13.8 | -1.8 |

() Reuse in Japan

Formal route



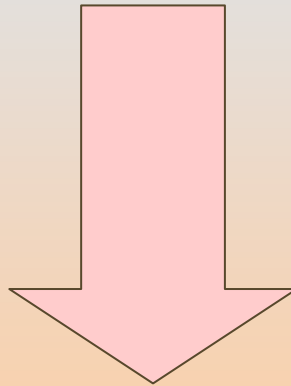
reuse



Good point

These 2 ways

Avoidance of potential disposal



Good point!

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

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

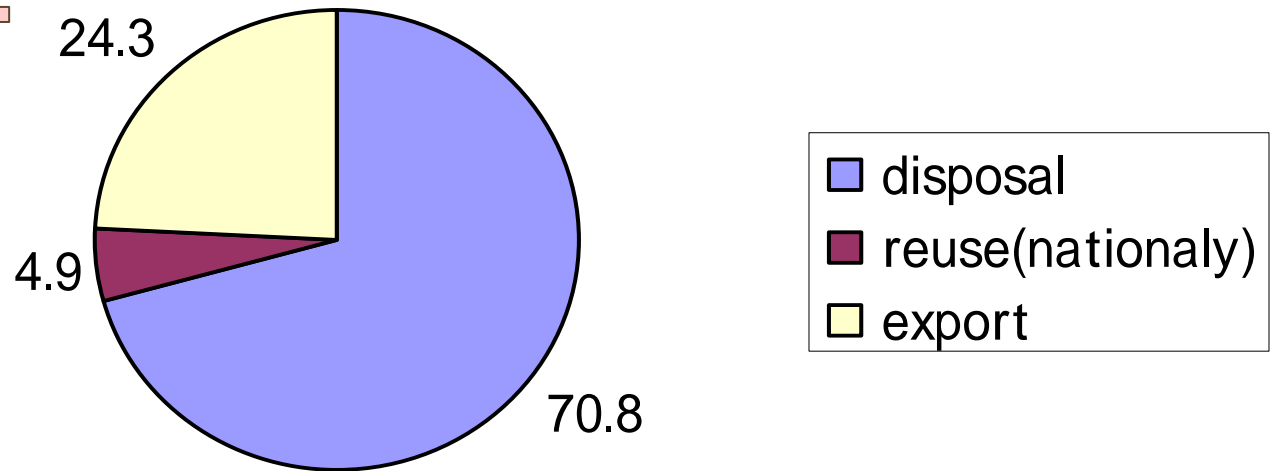


Slight figures



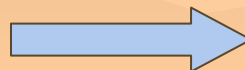
Export as used appliances (before the law)

About
5million
units



Source: meti

24.3% > 4.9%



Large figure

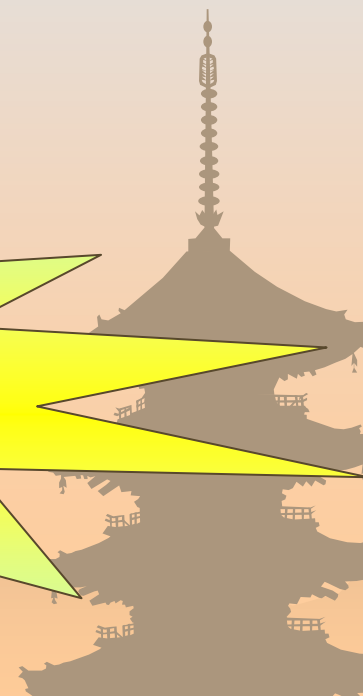
() Stream for export

Essentially.....

Achieve Efficient use of limited resources

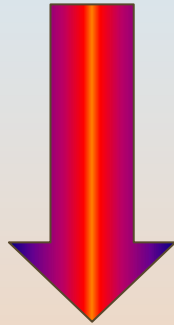
But

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

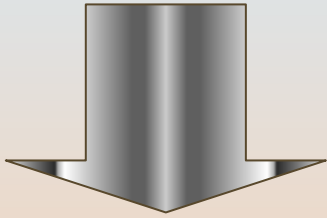


Look at the actual situations



Tragic state of treatments

Terrible treatments



Bad for

Workers' health

Surrounding environment



Asian domestic market

Developed countries

E-waste

Deemed as the **cause** of
Bad impacts

treatments in Asian countries

Bad impacts

Bitterly criticized



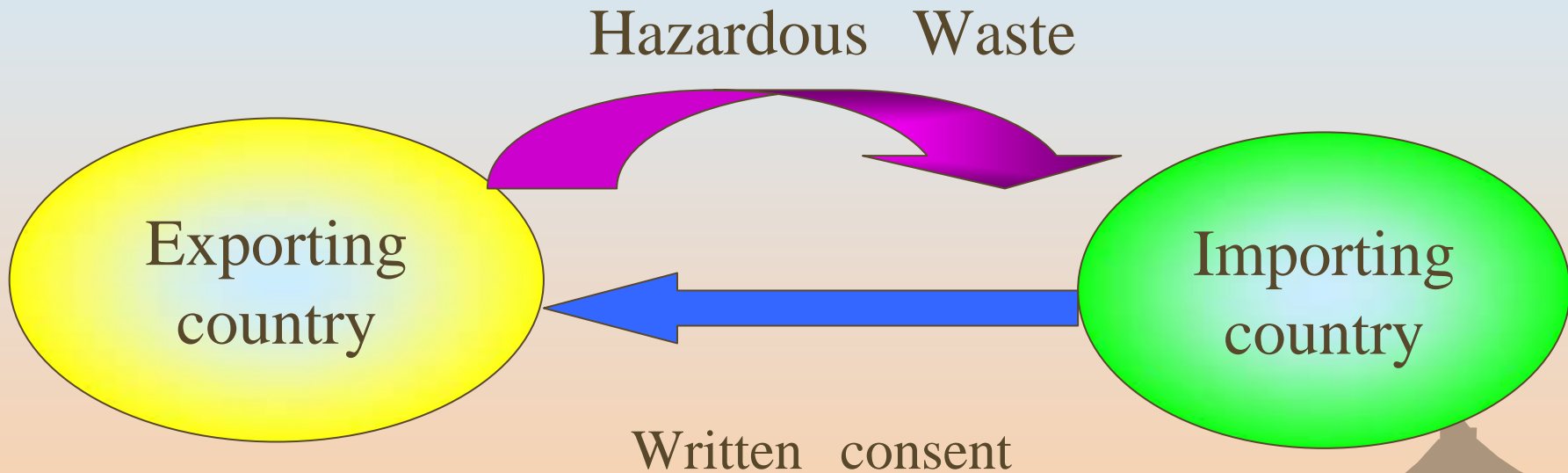
Movements for

import ban

accelerated



Basel Convention



Clarify the location of hazardous wastes

Basel Convention

just a control



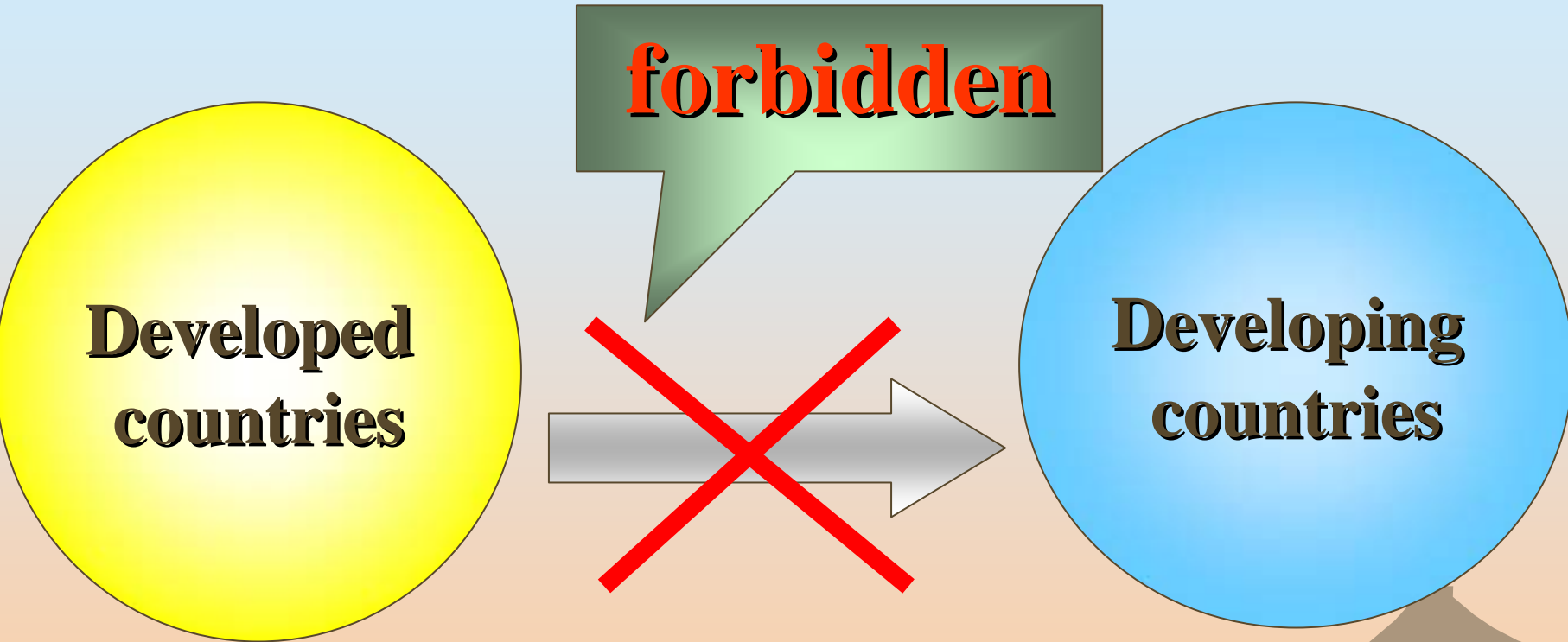
justification of the export



towards the total ban



Basel Ban Amendment



**Developed
countries**

forbidden

**Developing
countries**

What are the consequences of the export ban ?

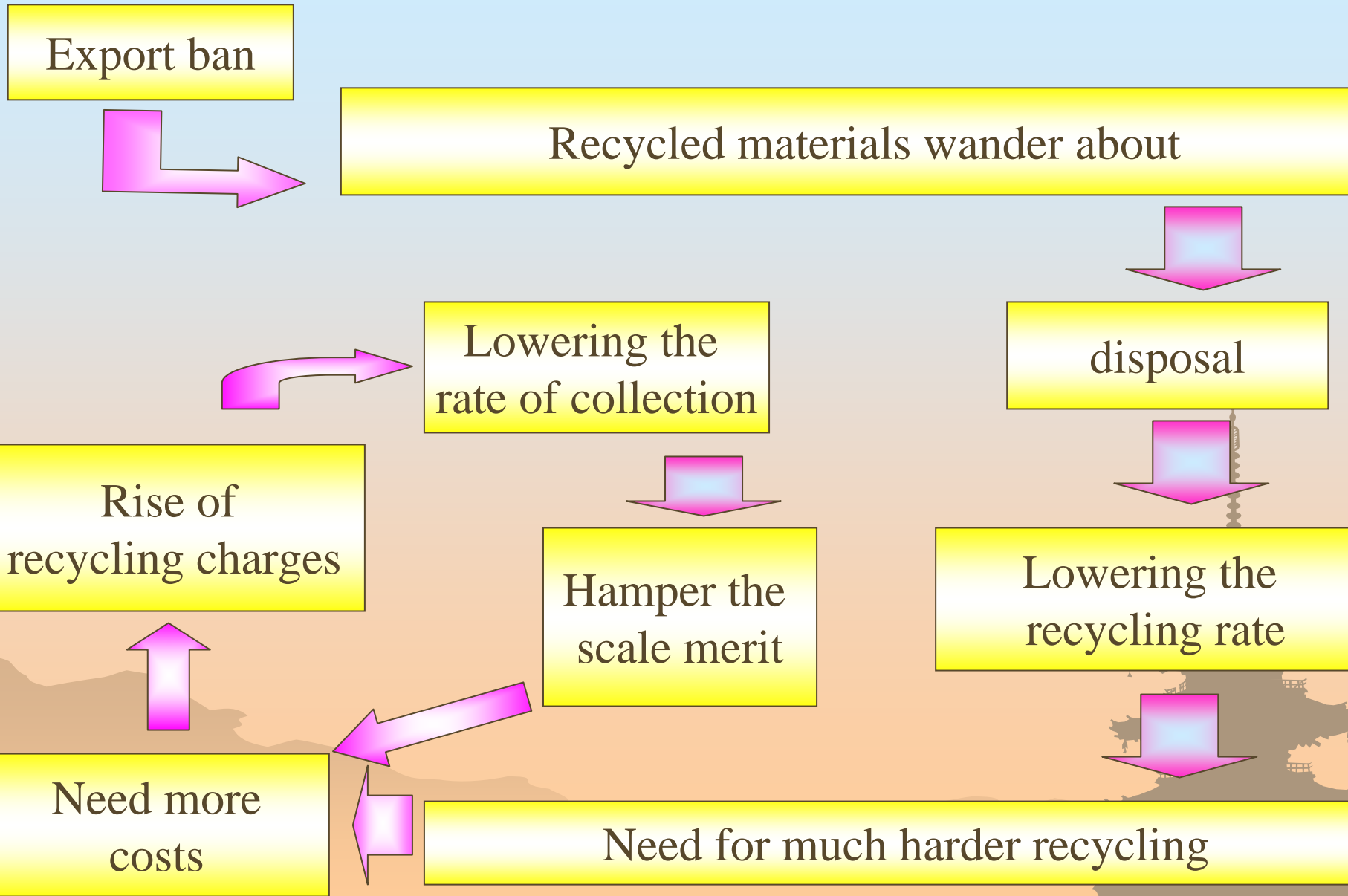
Bad for

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

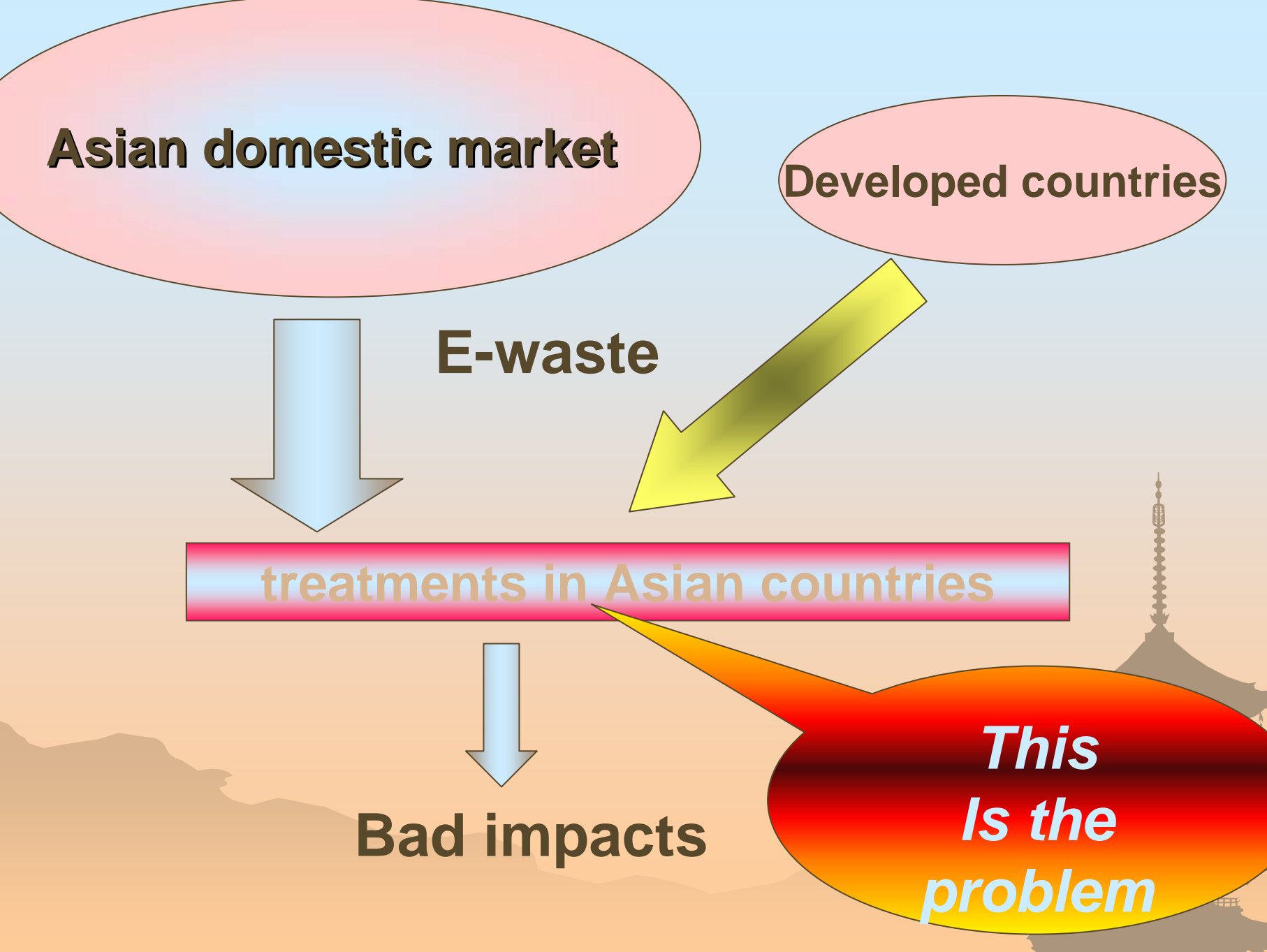
Developed countries

E-waste

treatments in Asian countries

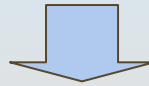
Bad impacts

***This
Is the
problem***



Solution

Recycling system construction

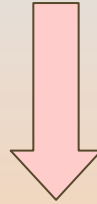


voluntary effort must be essential

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



Is it possible to act voluntarily?



Profitability is the key point



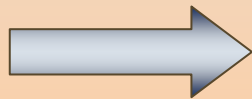
profitability

Changing cost

Ex) worker's wage

Wage may be low relatively

benefit for selling recycling resources



Changing cost can be very low

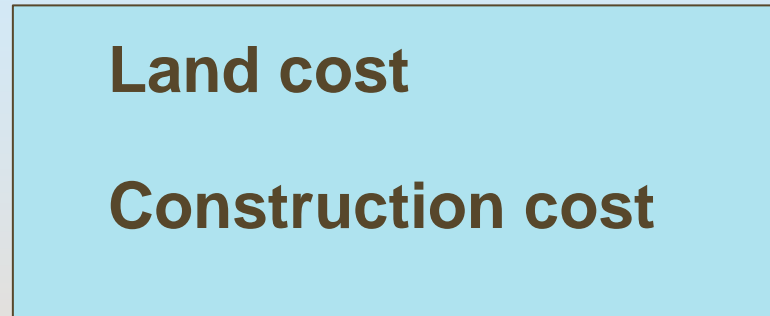
Fixed cost

Ex) land cost, construction cost

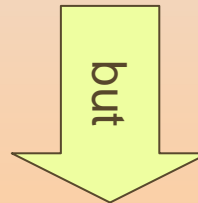


Fixed cost problem

Fixed cost



these costs can be low comparatively

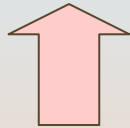


Companies recover fixed costs for a long time

Are companies willing to construct recycling system?

Japan

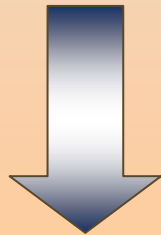
ECO TOWN project



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

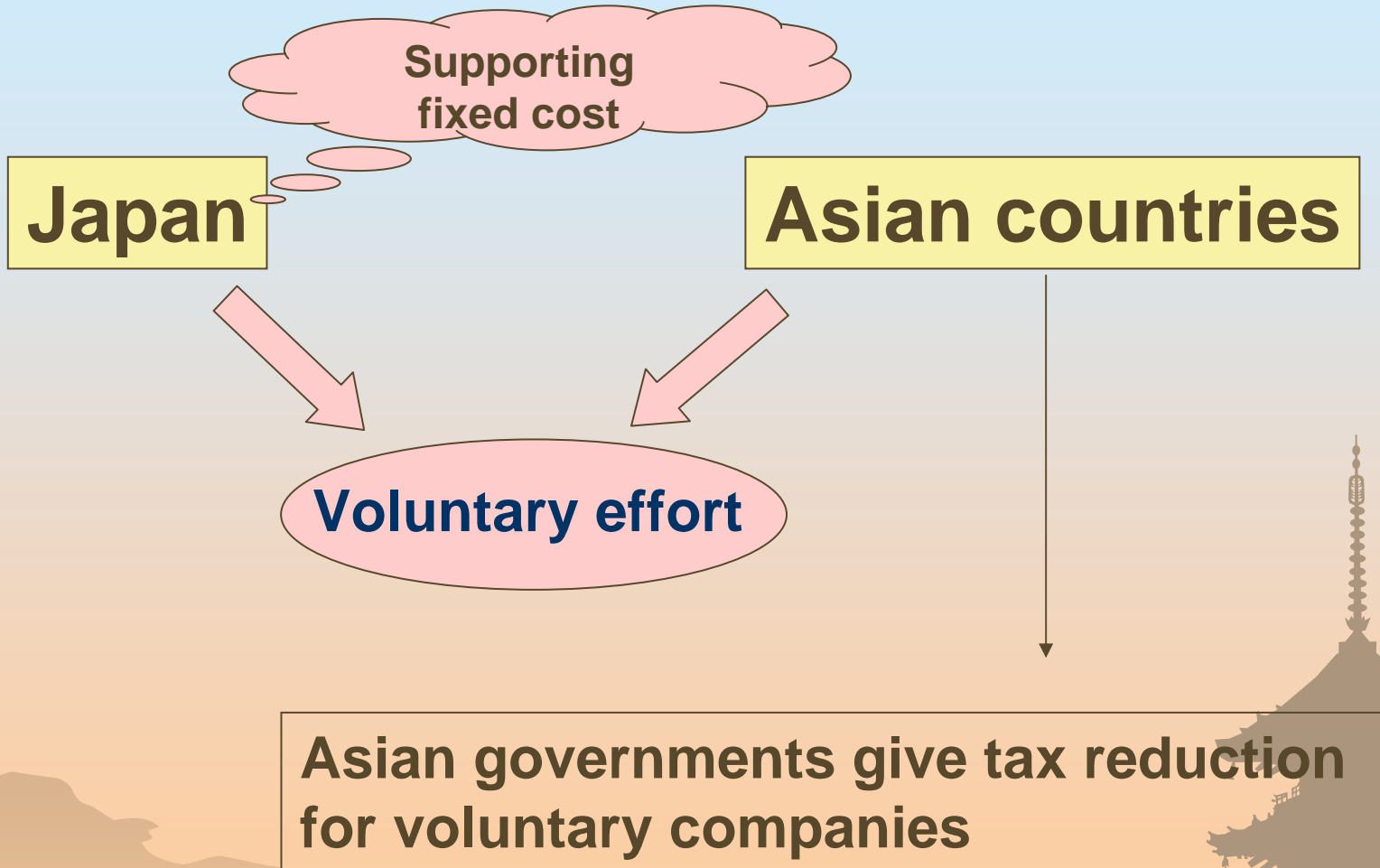
Tax problem

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

