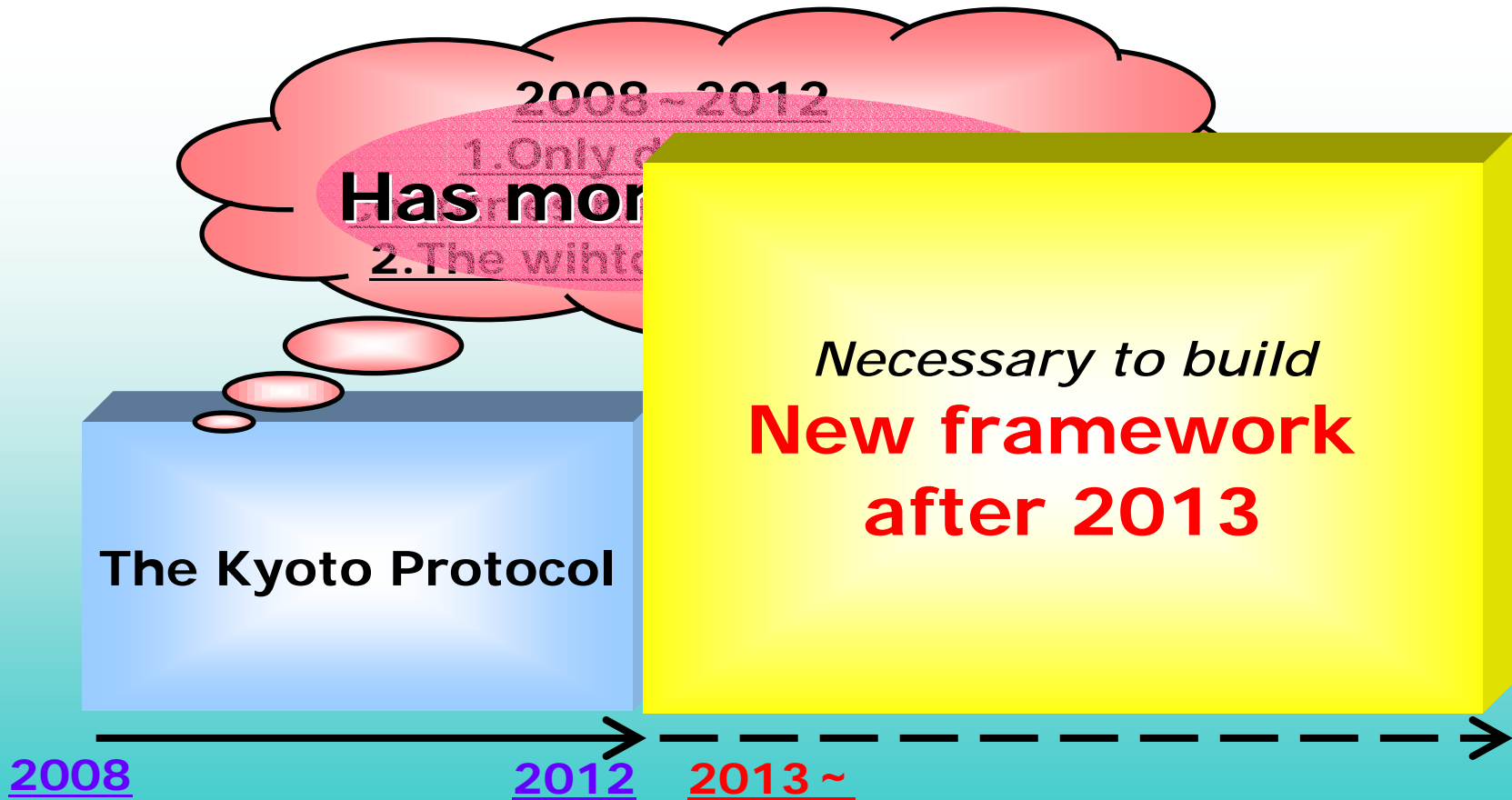


Introduction



Contents for tomorrow

- 1 . Global Warming Brief**
- 2 . Kyoto's Fantasy Land**
- 3 . Alternatives and Our Proposal**
- 4 . Conclusion**

1-1 Present Condition of Warming

- ◆ Most of the warming seen over the last 50 years has occurred in the **tropics.**

We should act as soon as possible.

- ◆ The physical climate system will continue to affect the future.

(IPCC Third Assessment Report)

1-2 Characteristics of Warming

1. Prevention of **free riders**

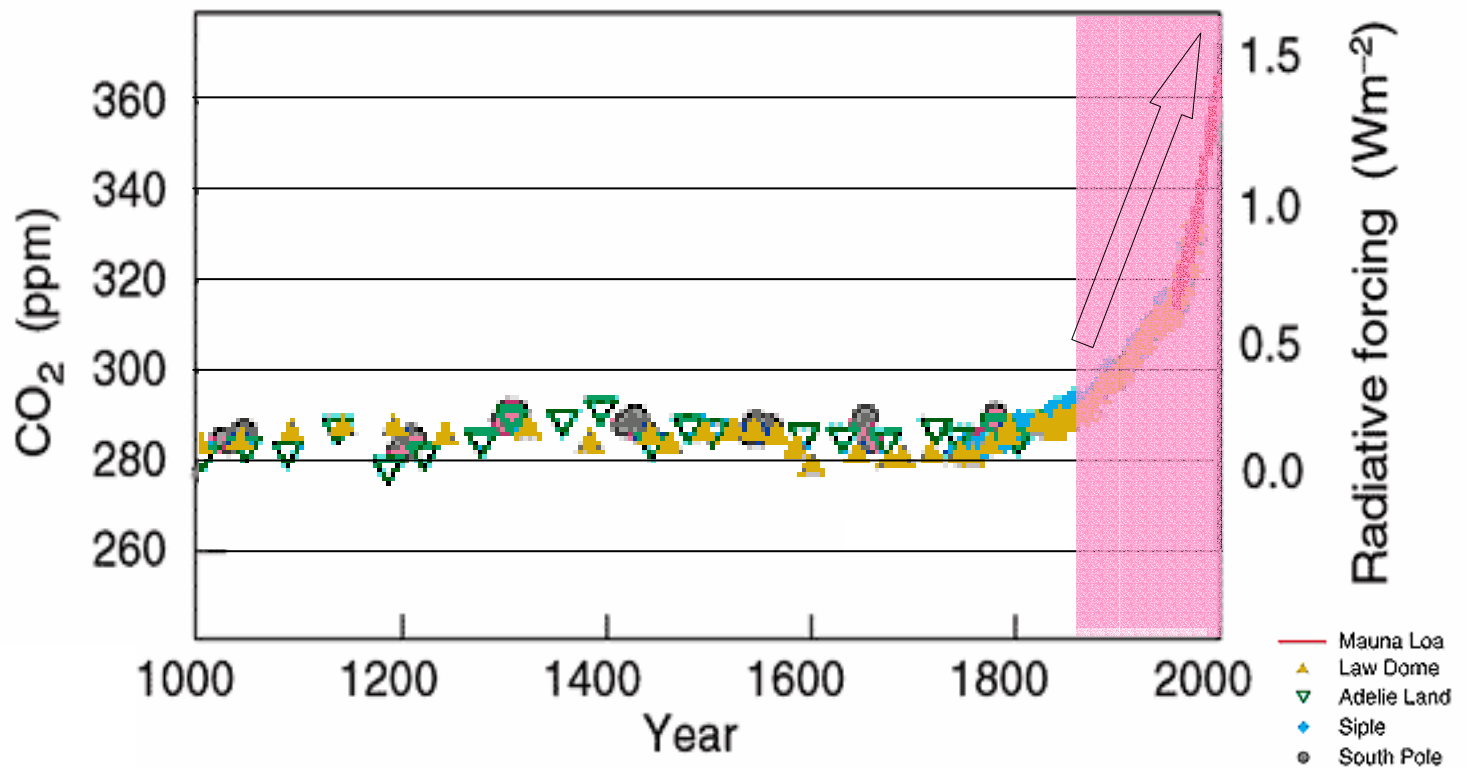
2. **Cost matters**

3. **Stock**

4. **Uncertainty**

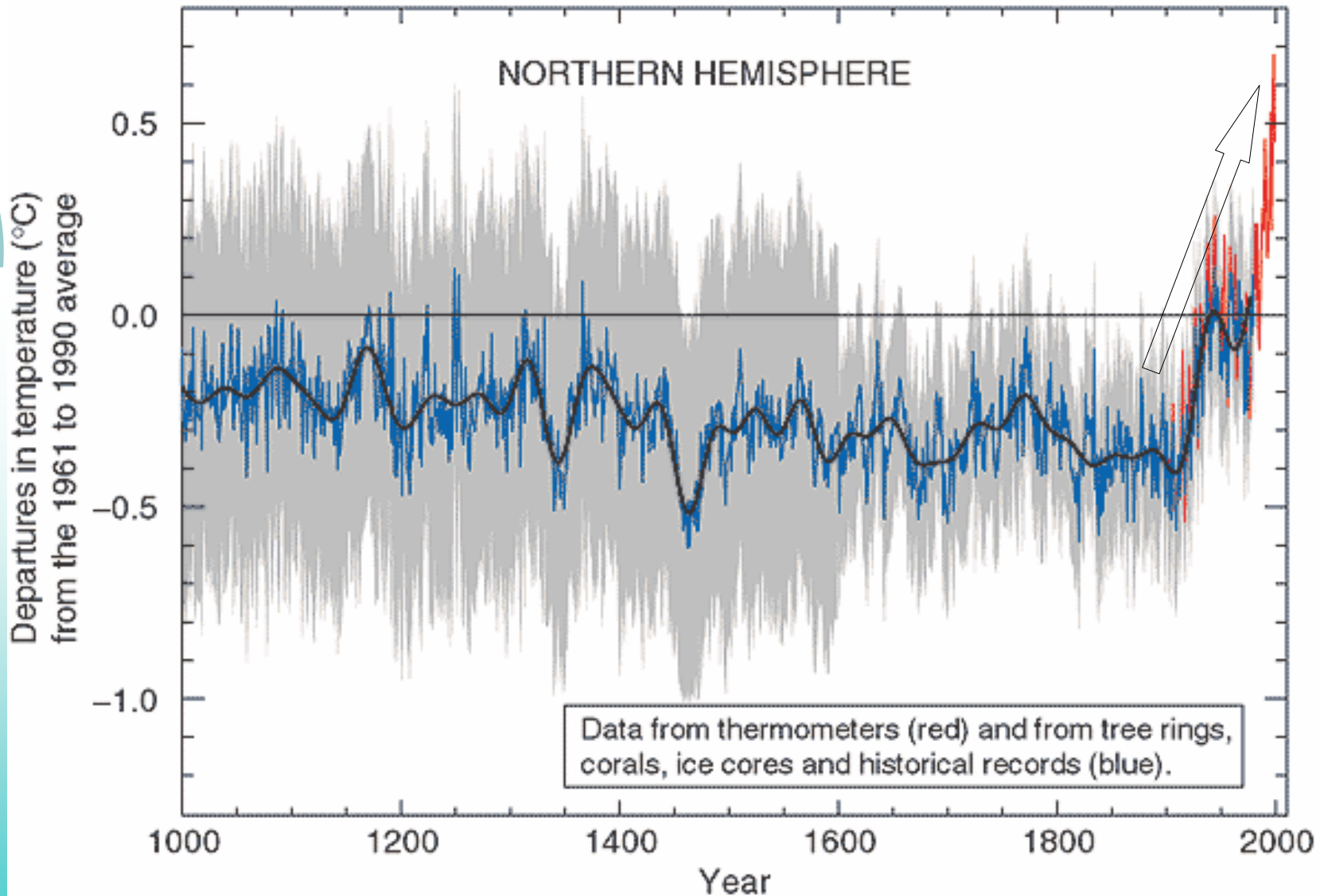
Indicators of the human influence on the atmosphere during the Industrial Era

Global atmospheric concentration of CO₂



Source: IPCC third assessment report WG

The average surface temperature of northern hemisphere



[Return](#)

Source: IPCC third assessment report WG

1-2 Characteristics of Global Warming

1.

Prevent **free riders**

2.

Cost matters

3.

Need a viewpoint **in the long run**

4.

Uncertainties should be **considered**

Contents for tomorrow

1 . Global Warming Brief

2 . Kyoto's Fantasy Land

3 . Alternatives and Our Proposal

4 . Conclusion

2 . Kyoto's Fantasy Land

1. No consideration for the Costs
2. The Problem of 1/3
3. Non-Compliance Procedure

2-1 No consideration for the cost

Cap and Trade

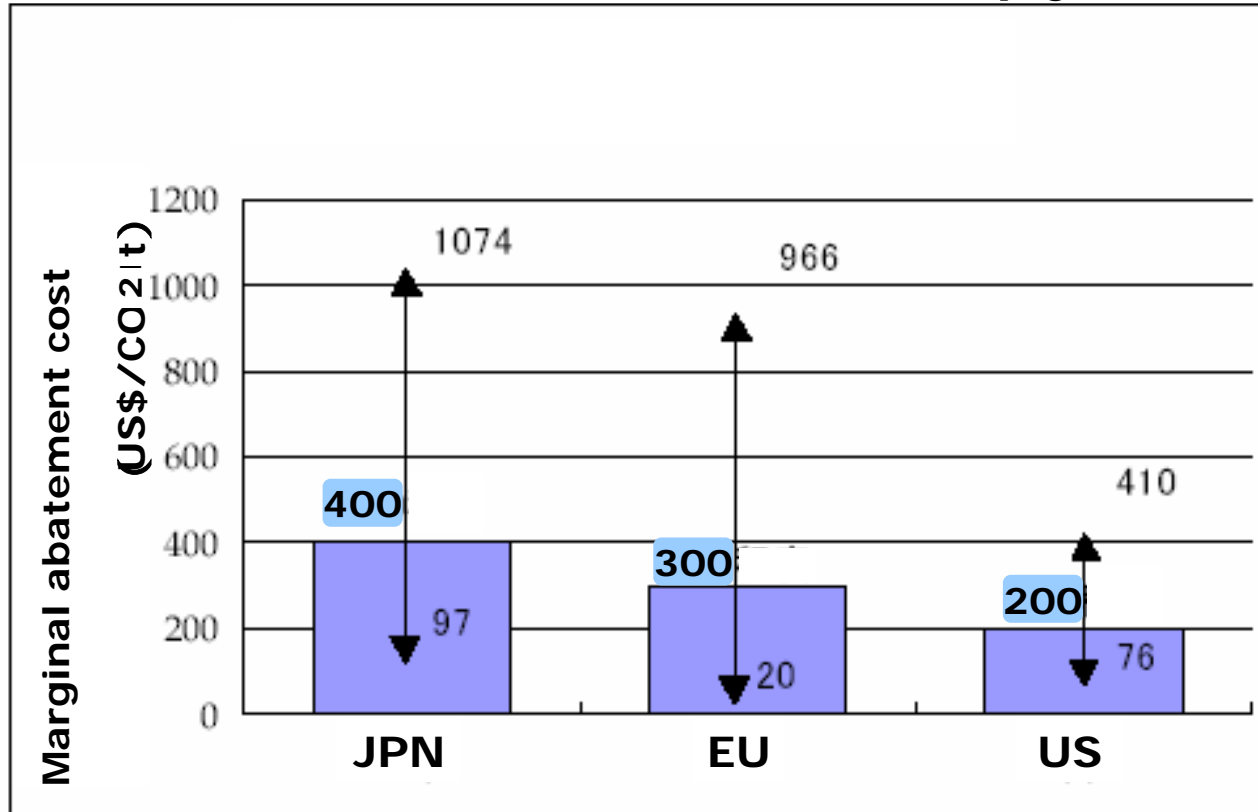
Cap

└ No consideration for
global economic growth

Trade

└ Cost-efficiency
but, **Uncertainty of the cost**

The trial calculation of the cost to comply the KP



source: IPCC third assessment report (2001)

2-1 No consideration for the cost

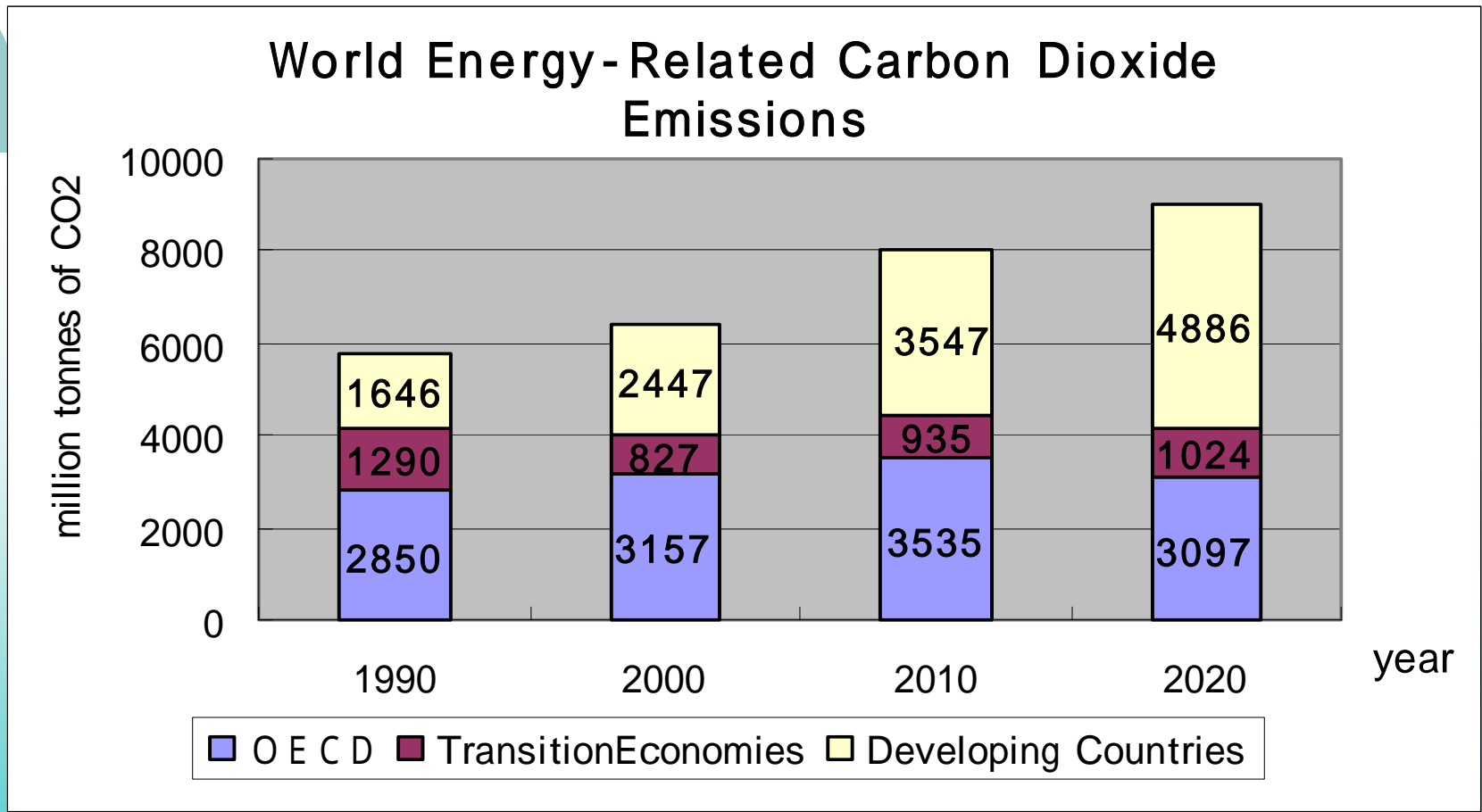
Lack of consideration
for the cost

2-2 The Problem of 1 / 3

The protocol will have
little effect
on the global warming

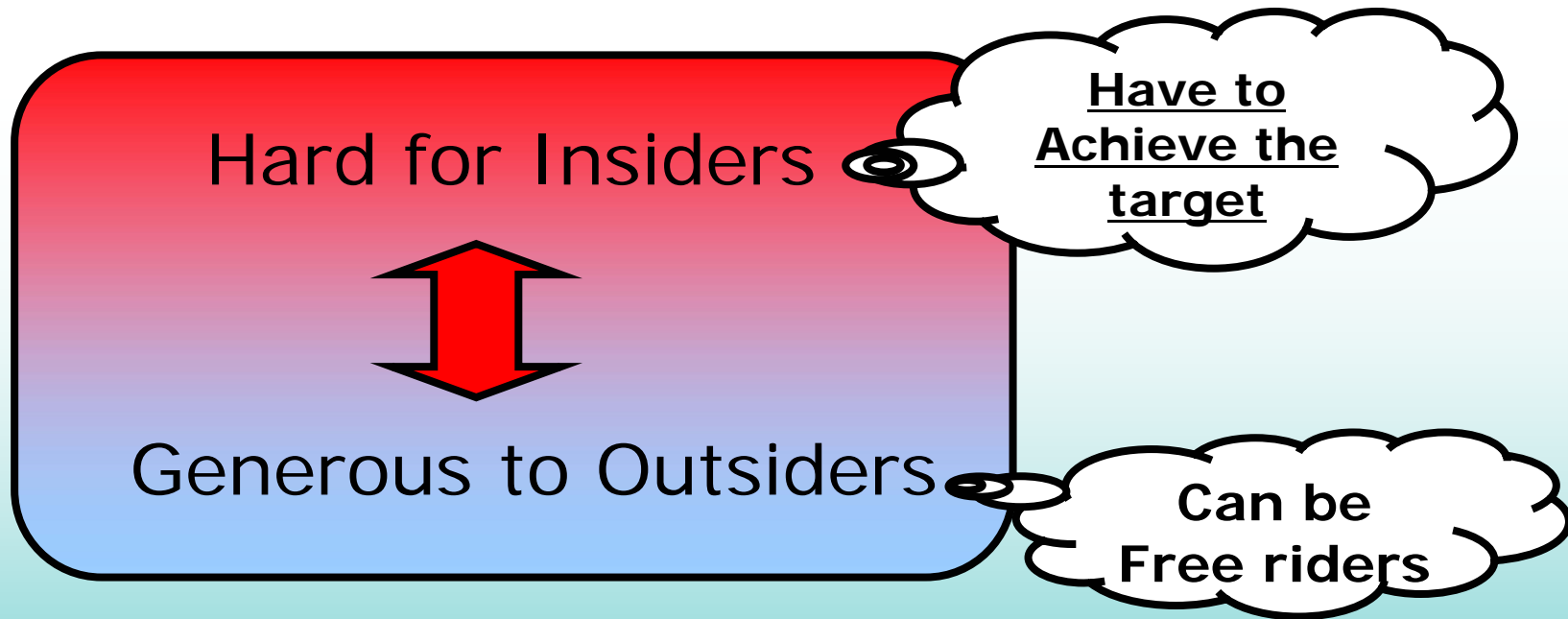
Only covering **1/3** of total emission.

2-2 the problem of 1/3



Source: Ministry of Economy, Trade and Industry (2003)

2-3 Non-compliance Procedure



It should be more flexible for insider!

3 . Alternatives and Our Proposal

1. Cost

1-1 Approach

1-2 Initial allocation

2. Developing countries

3. Non-compliance procedure

3-1-1 Approach

Kyoto = Cap and trade

Regardless of the economic growth

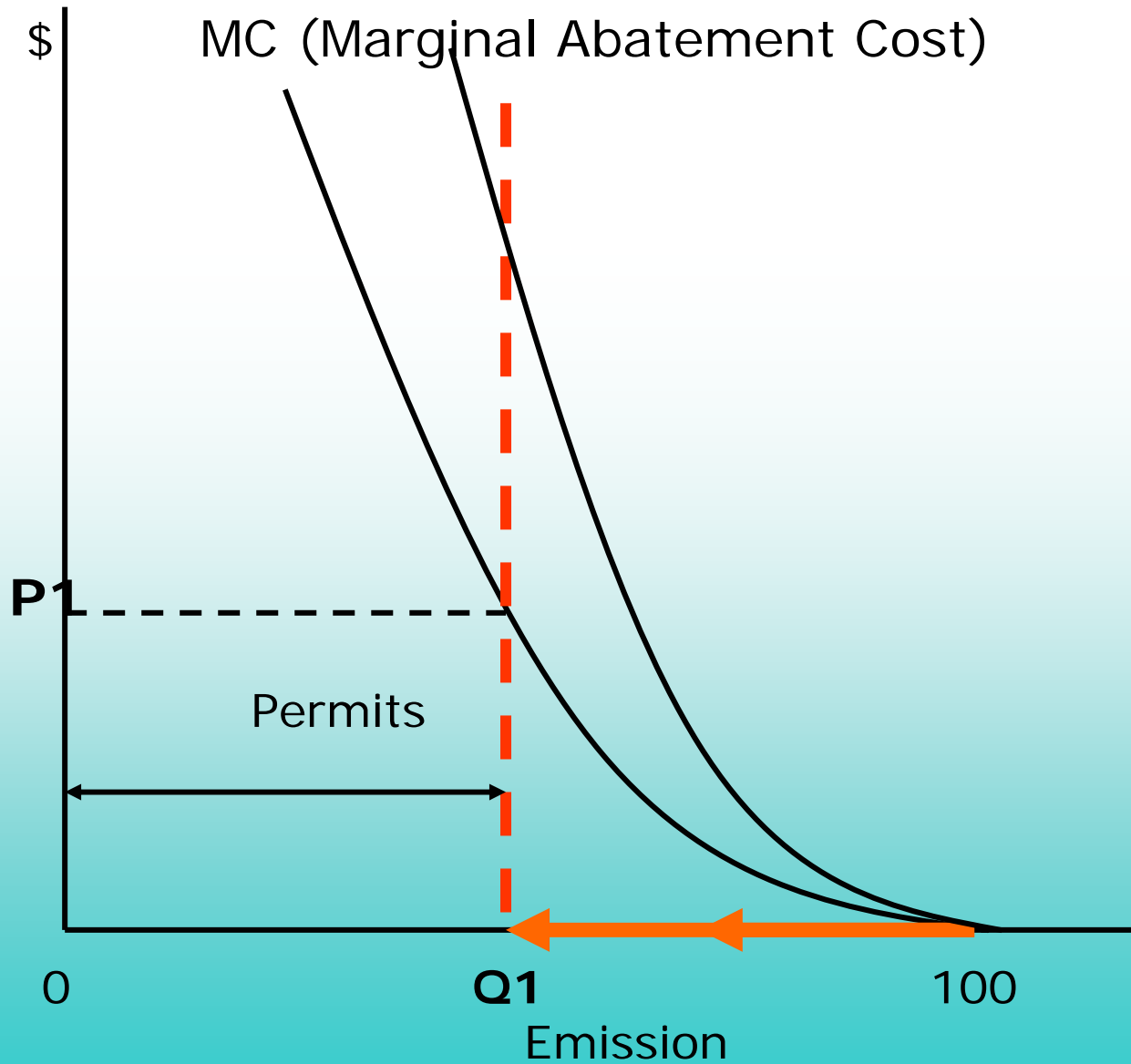
- Then what other approaches will be available?
- By comparing such alternatives, will Cap & Trade still remain as the best options?

3-1-1 Approach

- **Cap and Trade**
- **Carbon Taxes**
- **Hybrid Approach**

3 - 1 - 1 Comparing 3 major options

Cap and Trade

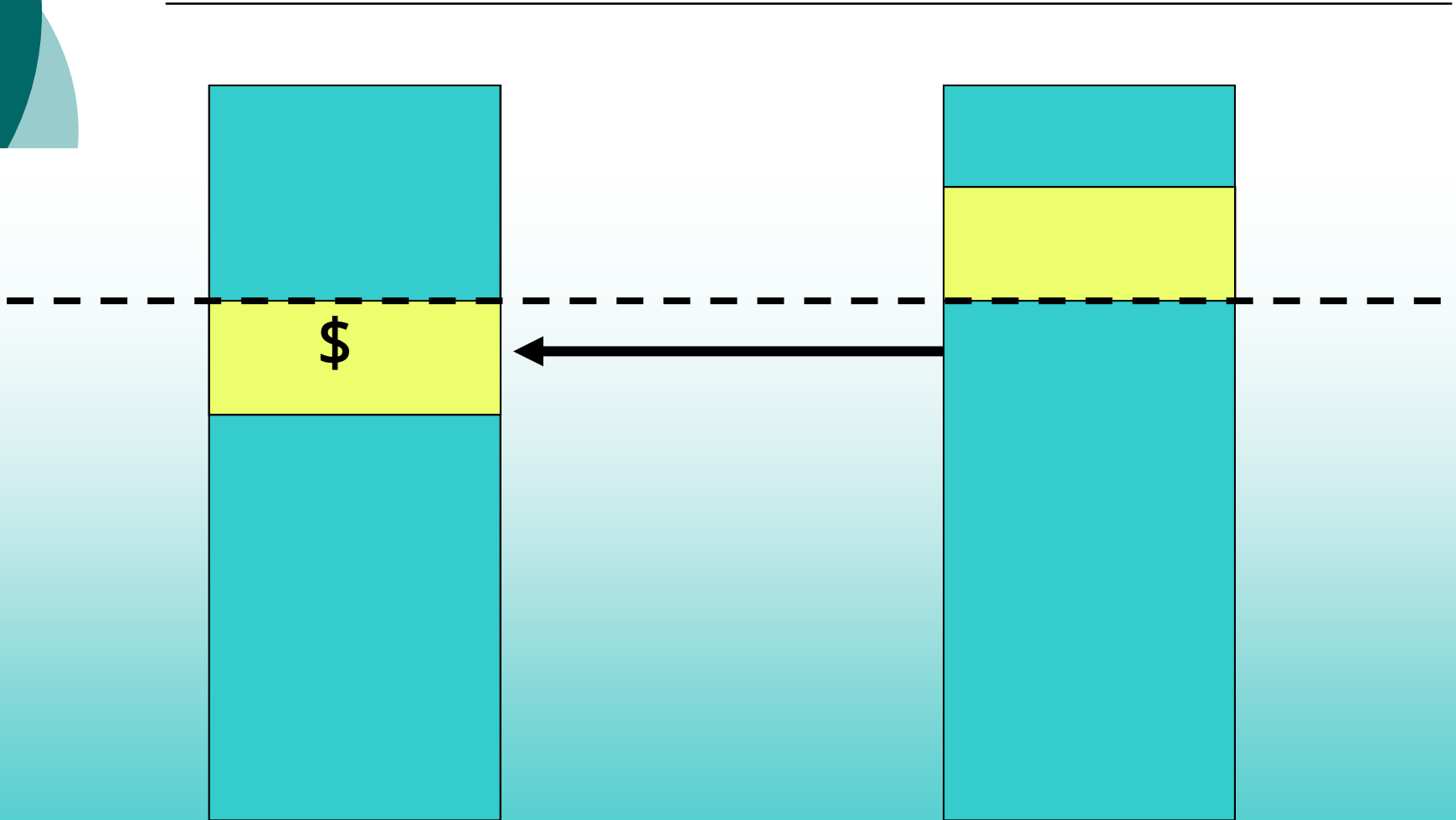


3 - 1 - 1 Comparing 3 major options

Cap and Trade

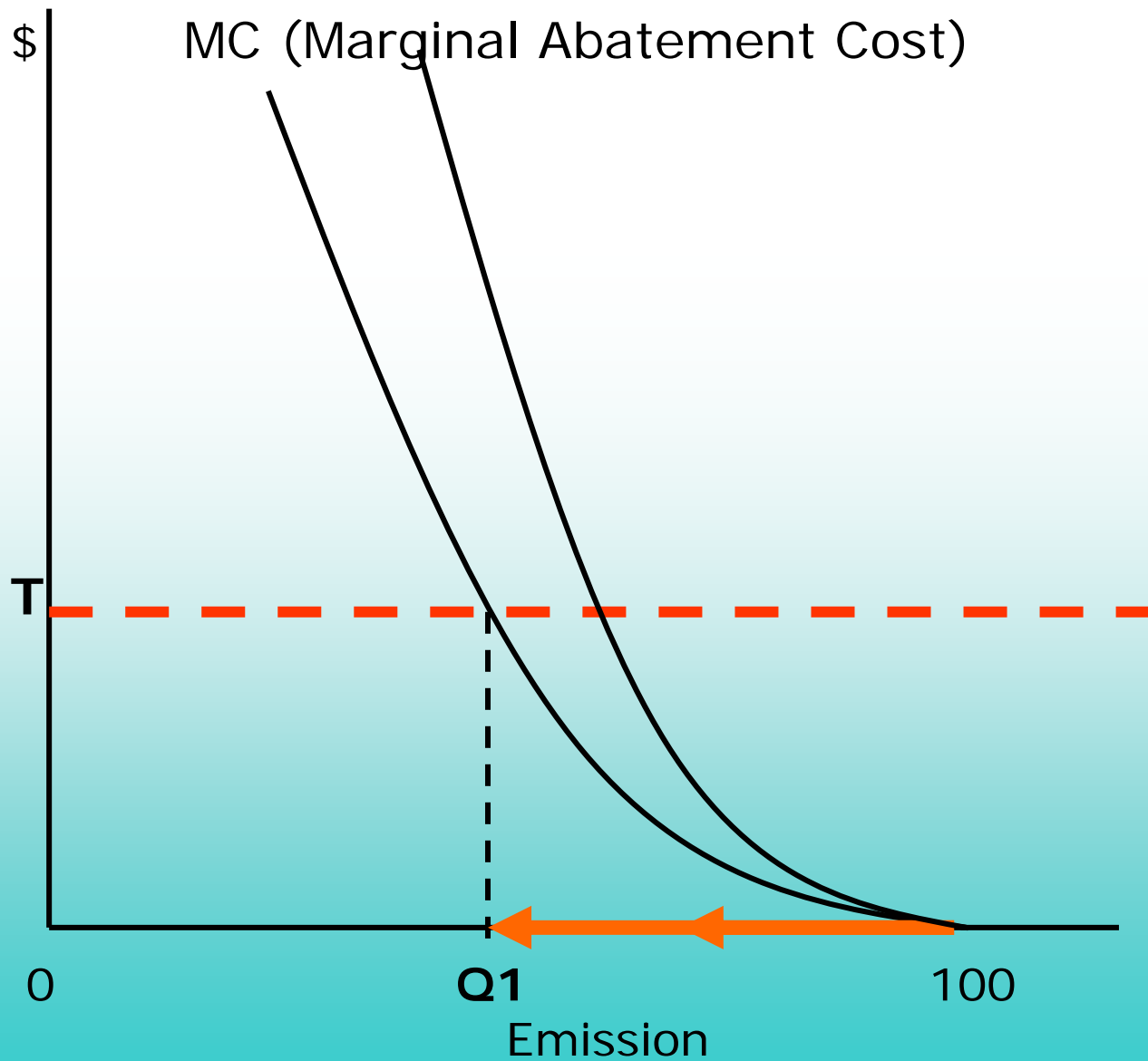
A

B



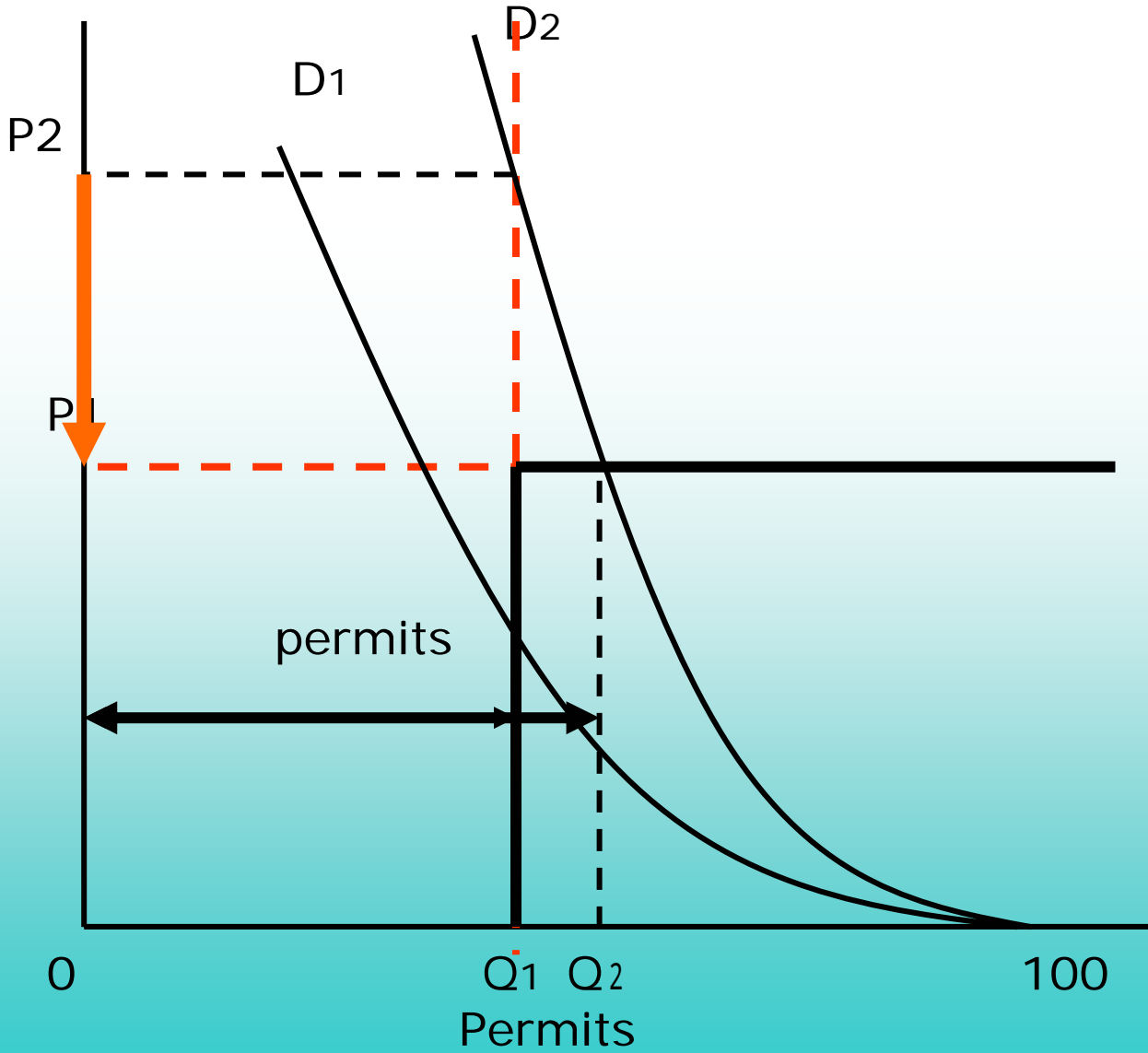
3 - 1 - 1 Comparing 3 major options

Carbon Tax



3 - 1 - 1 Comparing 3 major options

Hybrid \$



3 - 1 - 1 Comparing 3 major options

	Cap & Trade	Carbon Tax	Hybrid approach
Cost	×		
Reduction volume		×	
Possibility		×	

Possibility is very important !

3 - 1 - 1 Comparing 3 major options

Possibility = Cap & Trade

How solve the problem of Kyoto Protocol?

Regardless of the economic growth

We solve this problem by

How to decide the initial allocation!

3 - 1 - 1 Comparing 3 major options

What's more...

Cap & Trade is

- Continuous with Kyoto Protocol
- Agreed with more than 100 countries.

We need to discuss

How to decide the initial allocation!

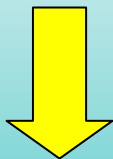
3 - 1 - 2 The Initial Allocation

< Bottom-up Approach >

Multi-Sector Approach:

Deciding emissions by calculating the reduction rates on the spectral level.

allows for specific national circumstances



so

High possibility of reaching the target.

3 - 1 - 2 : The Initial Allocation

Multi-sector approach

Indicator

(contains the notion of cost)

emission efficiency

3 - 1 - 2 : The Initial Allocation

Emission Efficiency

= National GHG emission / GDP

NGE/GDP

Abatement Cost

Can keep the balance of cost !

3 - 1 - 2 : The Initial Allocation

Comparison

Energy efficiency

= National energy consumption / GDP

Important point is to reduce GHG emission. Not energy consumption

Emission efficiency is better

3 - 1 - 2 : The Initial Allocation

How Should We Calculate the Initial Allocation??

Step 1:

Emission Efficiency per sector

= GHG emission per sector / GDP per sector

including consideration of specific national circumstances

Step 2:

Sum up the *quantity* of abatement per sector.

Not *improvement rate* of efficiency.

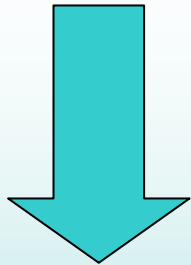
For emission trade

-
- すみません。 図が作れません。。。
 - セクターごとの排出量を足し合わせて、国の総排出量にするって感じを出したいのです。
 - まあ、このところはさらっと流す感じでいきますが。 すみません。 誰か図助けて。。

In case of non-compliance

If a country

Succeeded in **improving emission efficiency**



However!!!!!!!!!!!!!!

Failed in reduction of GHG (because of economic growth)



International negotiation

3 - 1 - 2 : The Initial Allocation

< Multi-sector Approach >

There will be a possibility that the amount quantity of abatement fall below that of KP.

Global warming should be managed by
broader participation!

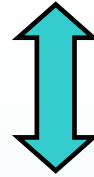
Participation of Developing Countries

《overview》

- 3 - 2 - 1 **Introduction**
- 3 - 2 - 2 What are Developing Countries?
- 3 - 3 - 3 Alternative Options for Timing
- 3 - 3 - 4 Our Proposal

3 - 2 - 1 Introduction

『 *Common but differentiated responsibility* 』

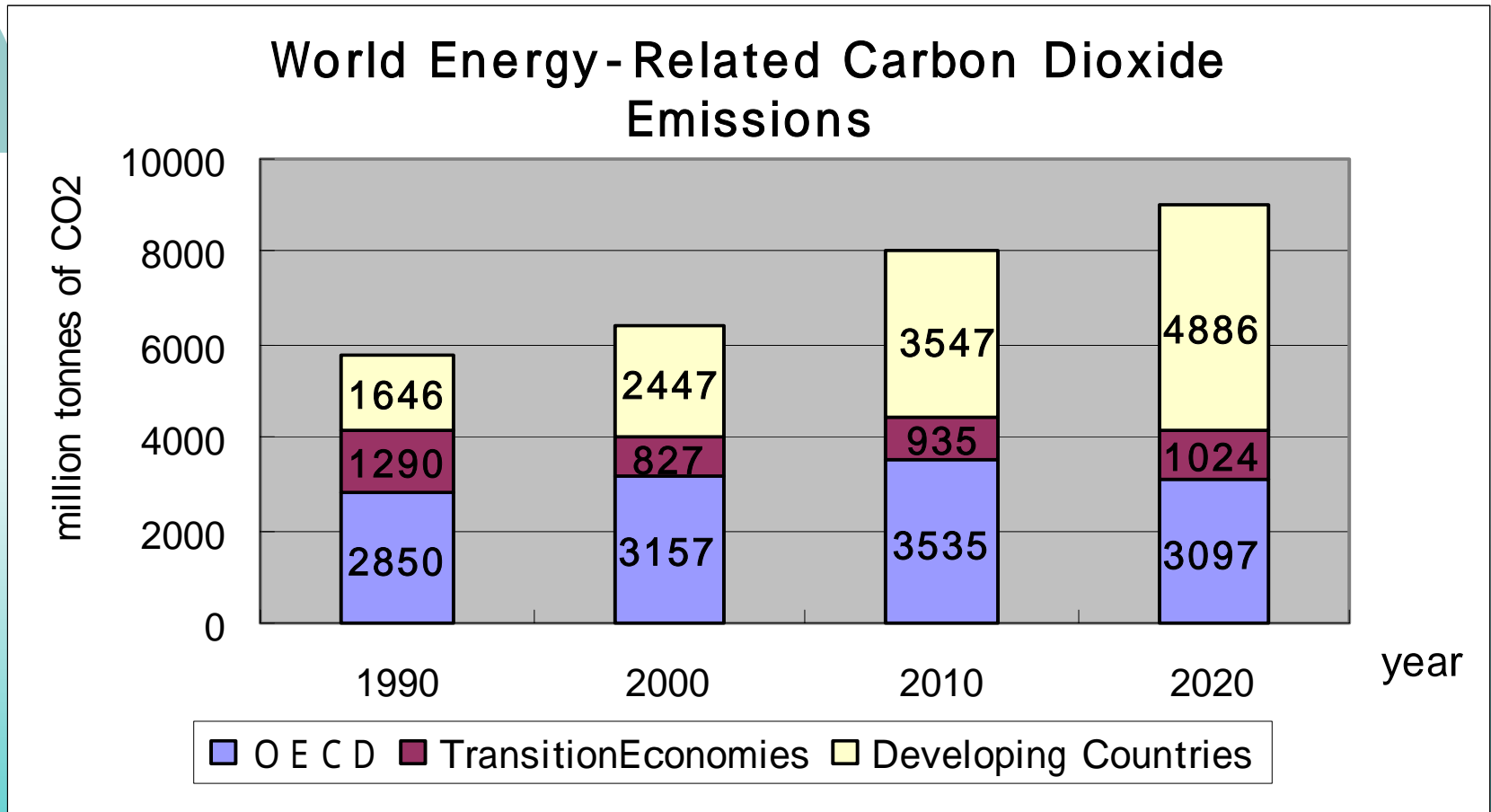


CO2 emissions of DCs is increasing!

DCs also need to act!

**The Timing of DCs' action is
very important!**

CO2 Emissions of DCs



Source: Ministry of Economy, Trade and Industry (2003)

Participation of Developing Countries

《overview》

- 3 - 2 - 1 Introduction
- 3 - 2 - 2

What are Developing Countries?

- 3 - 3 - 3 Alternative Options for Timing
- 3 - 3 - 4 Our Proposal

3 - 2 - 2 What are Developing Countries?

Developing Countries...

All countries except

OECD and Transition Economies !



*Each developing levels
are different !!*

3 - 2 - 2 What are developing countries?

Per capita CO2 emissions

25 non-Annex1 countries > Romania



GNP per capita

40 non-ANNEX1 countries > Bulgaria

Participation of Developing Countries

《overview》

- 3 - 2 - 1 Introduction
- 3 - 2 - 2 What are Developing Countries?
- 3 - 3 - 3

Alternative Options for Timing

- 3 - 3 - 4 Our Proposal

3 - 2 - 3 Alternative Options for Timing

UNFCCC starts
(1992)



POST Kyoto regime
starts

About 15 years

Caps over
Annex 1

(2008)

About
15 years

Caps over
Developing
Countries

3 - 2 - 3 Alternative Options for Timing

Past

Present

Future

Divide into 3 groups

Group 1

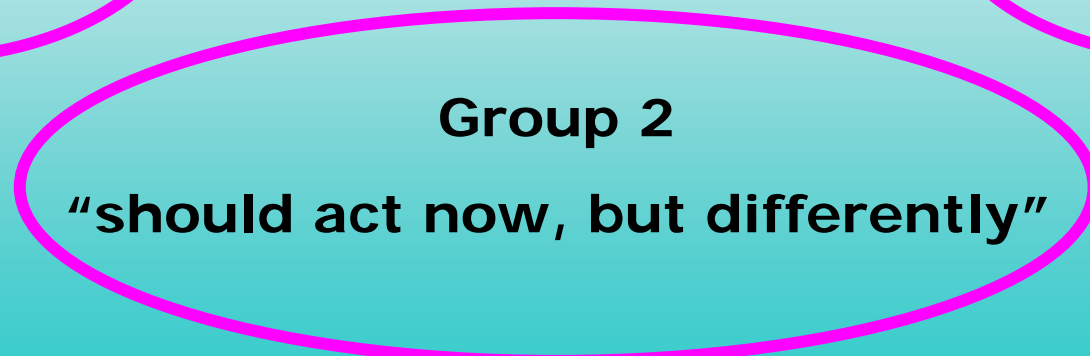
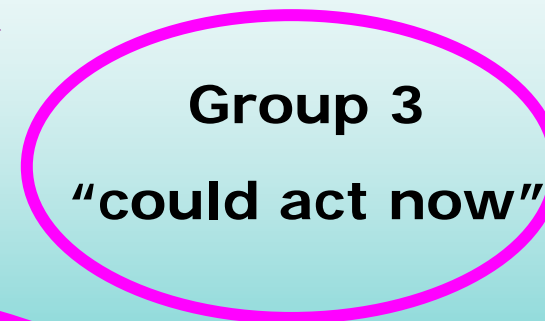
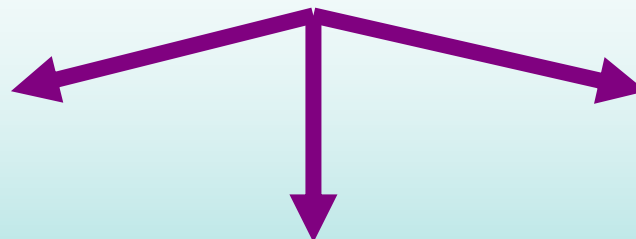
"must act now"

Group 3

"could act now"

Group 2

"should act now, but differently"



3 - 2 - 3 Alternative Options for Timing

Advancement system

**At the point
when DCs reached a certain level**

ex.) GDP per capita
emission of CO₂ per capita



Caps

Participation of Developing Countries

《overview》

- 3 - 2 - 1 Introduction
- 3 - 2 - 2 What are Developing Countries?
- 3 - 3 - 3 Alternative Options for Timing
- 3 - 3 - 4 **Our Proposal**

3 - 2 - 4 Our Proposal

Division into 3 groups

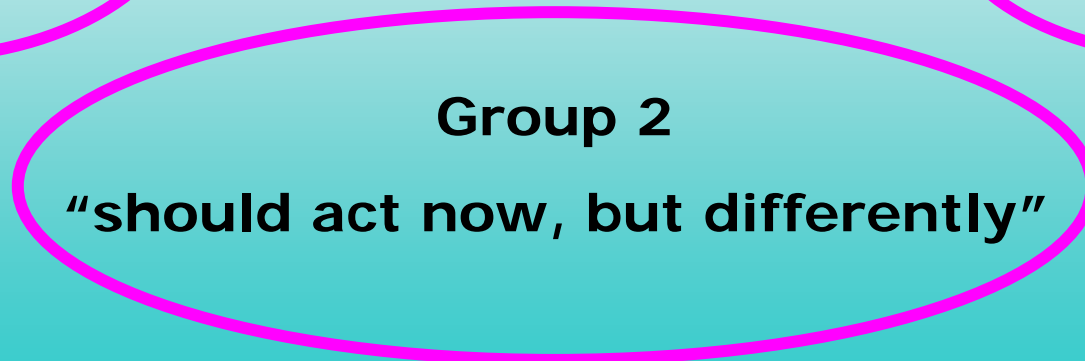
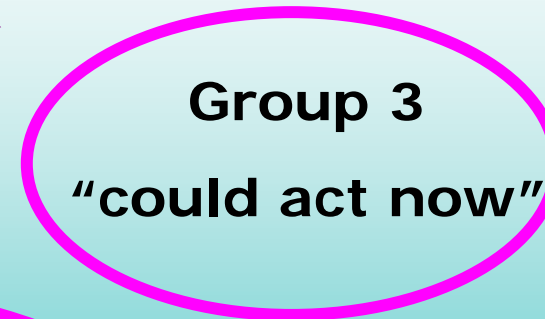
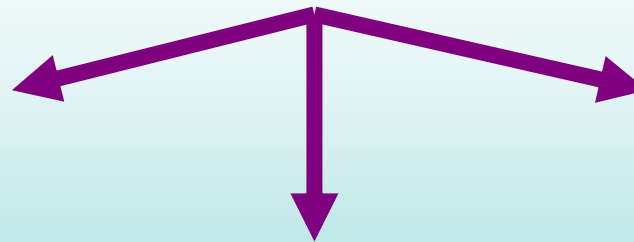
+

Advancement system

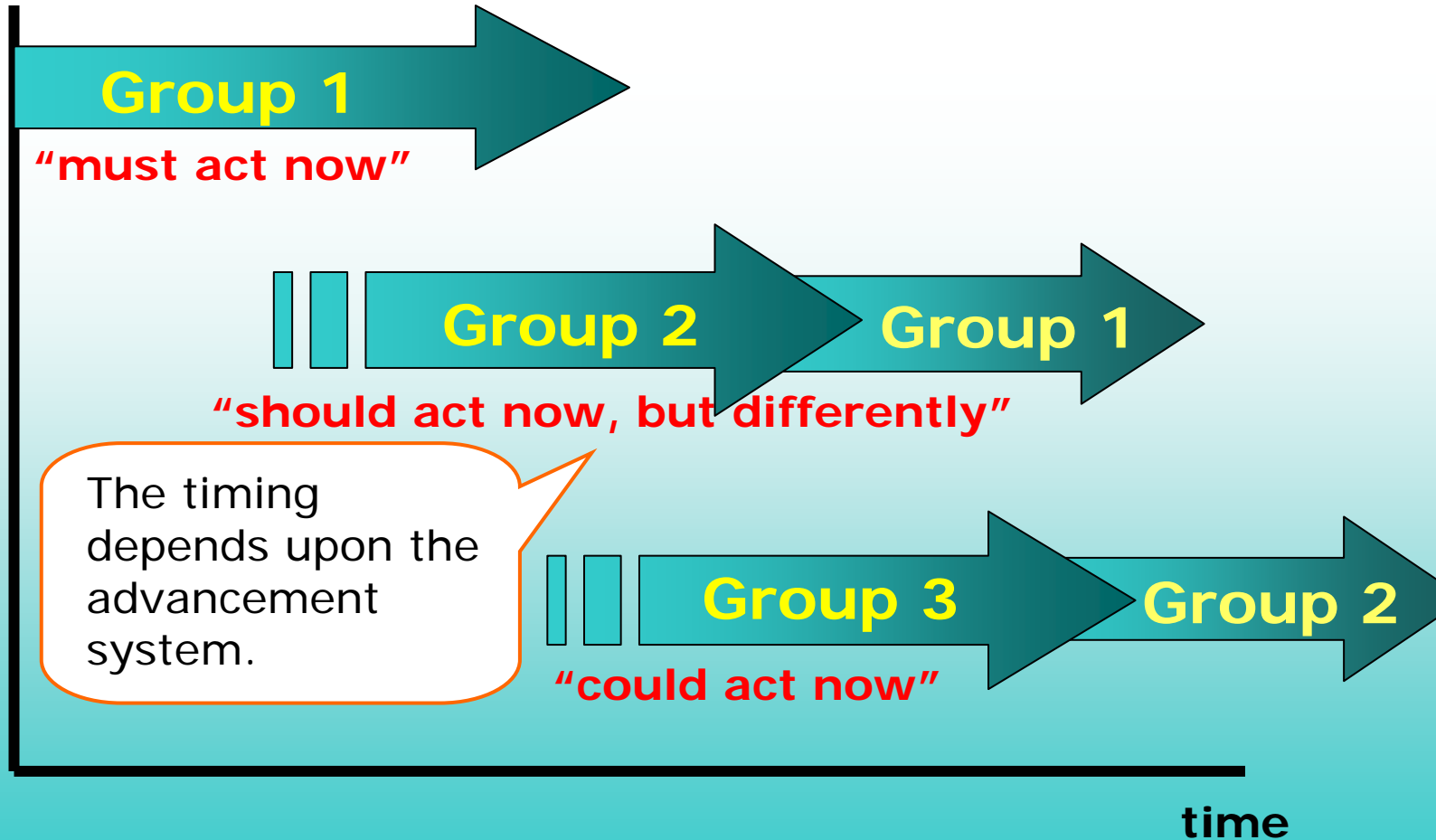
3 - 2 - 4 Our Proposal

Past emission volume	Current emission volume	Future emission volume
-----------------------------	--------------------------------	-------------------------------

Divide into 3 groups

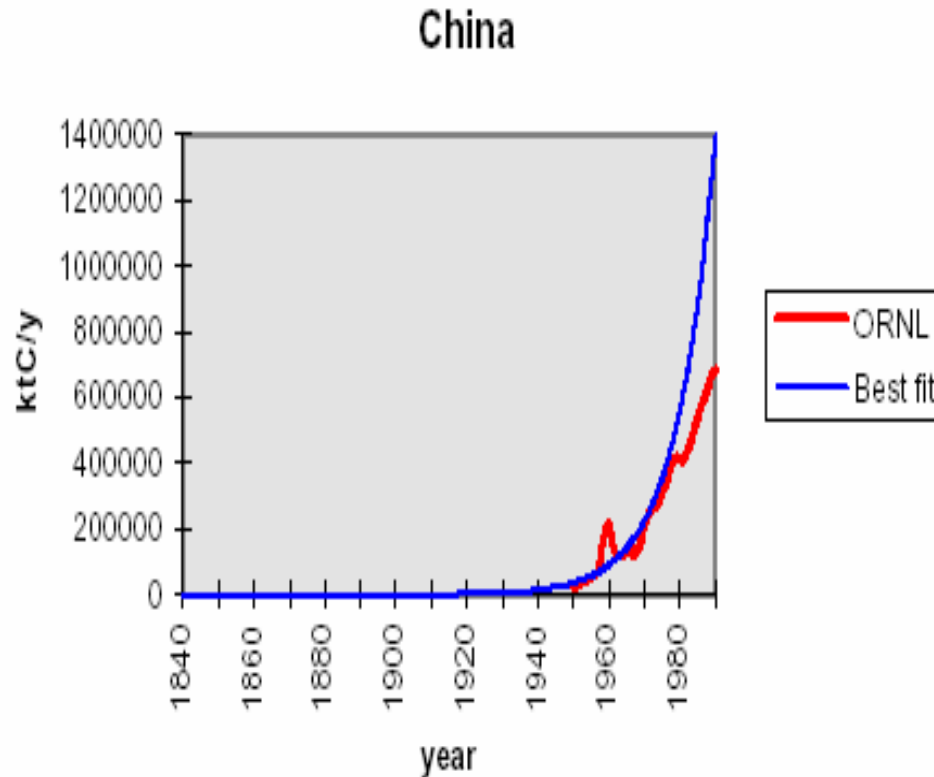


3 - 2 - 4 Our Proposal



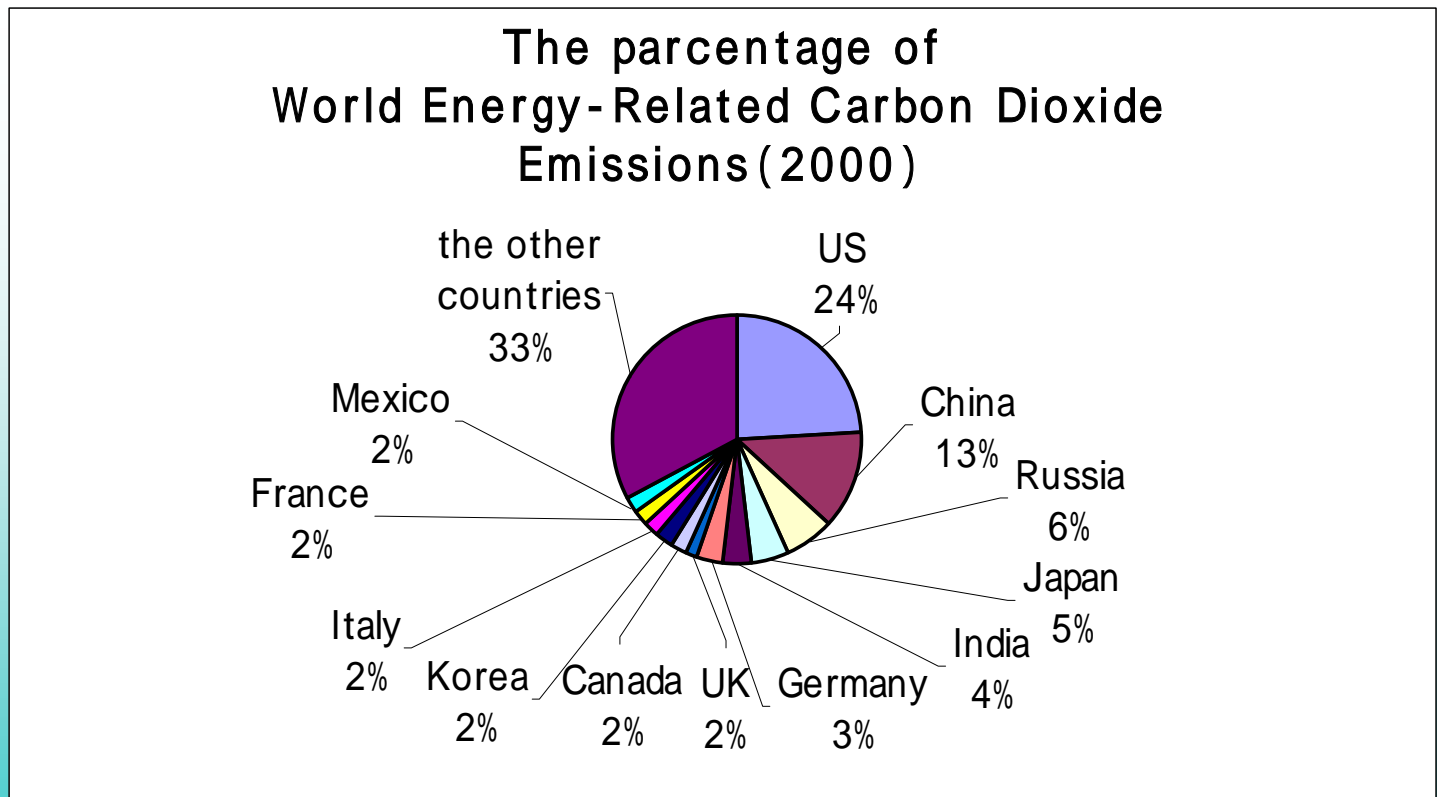
Ex) the case of China and Japan

Past emission volume



Ex) the case of China and Japan

Current emission volume

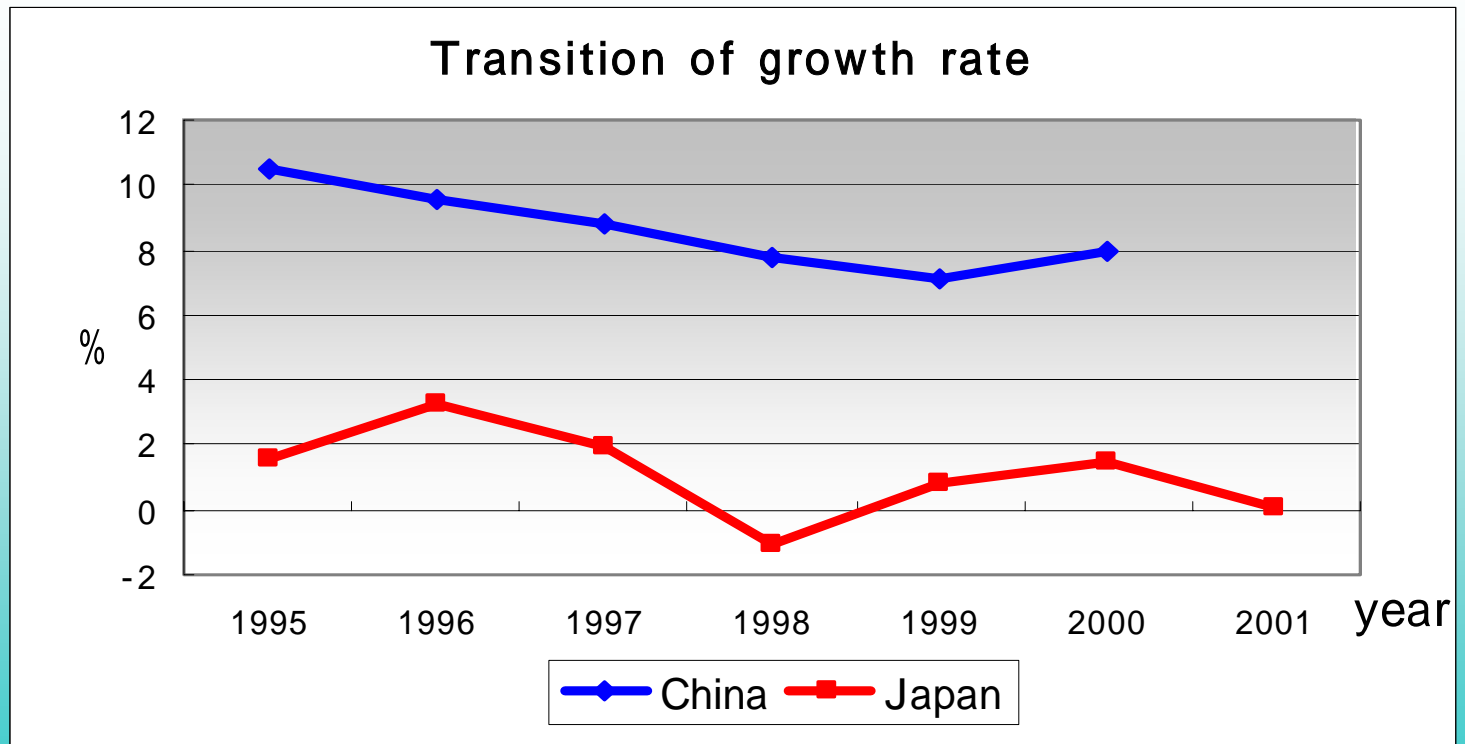


Source : Ministry of Economy, Trade and Industry (2003)

Ex) the case of China and Japan

Future emission volume

the growth of GDP

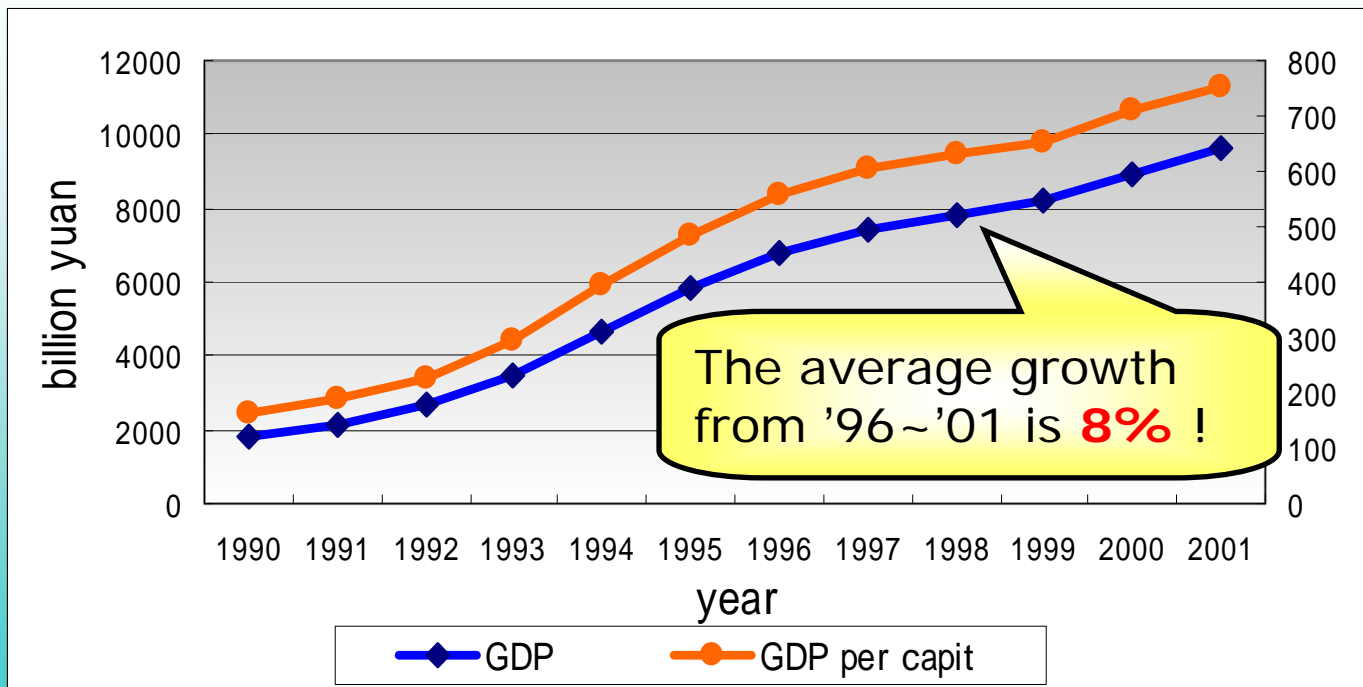


Ex) the case of China and Japan

Future emission volume

the growth of GDP

Transition of Chinese GDP



Ex) the case of China and Japan

	China	Japanese
Past emission volume	×	
Current emission volume		
Future emission volume		

Probably, *China belongs to Group 1 or Group 2*

Japan belongs to Group 1

3 - 2 - 4 Our Proposal

Division into 3 groups

+

Advancement system

This plan is reflected of the situation of each countries.

This plan can review the category of developing countries.

We insist our proposal is effective!

3 - 3 Non-Compliance Procedure

Non-compliance procedure is a way to help participants carry out their duties.

- It could take two forms, “penalty” or “support”
Kyoto Protocol took **penalty!**



Cf. Montreal Protocol (1987) took **support.**

= Overview =

1. *Process of making NCP*

(Marrakech Accords)

2. *Problems of NCP of Kyoto Protocol*

-- What NCP should be in MEA

(Multilateral Environmental Agreement)

--“1.3 % rule”

--Article 18 of Kyoto Protocol

3. *Conclusion*

Process of making NCP

COP6 (Hague: Nov. 2000) Negotiation broken down

COP6 resumed (Bonn: July. 2001)

Reached a consensus

COP7 (Marrakech: Oct ~ Nov. 2001)

Marrakech Accords

--Marrakech Accords--

Non-compliance procedure

Kyoto mechanisms

Sinks

Support for developing countries

This is a theme here!

NCP under Kyoto Protocol

If a participant can not reduce assigned emissions,

it 1) reduces 1.3 times the amount of excess emissions in the 2nd commitment period,

2) develops a compliance action plan for future,

and

3) loses an eligibility to join emission trading.

1) is not support but penalty.

Attributes of global environmental measures

International cooperation

Solving global environmental issues promotes public interests of international society.

Participants should be honored.

International adjudication system

Only a suffered country has a right to accuse a certain country of non-compliance.



NCP should be promotive and supportive

Article 18

The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session, approve appropriate and effective procedures and mechanisms to determine and to address cases of non-compliance with the provisions of this Protocol, including through the development of an indicative list of consequences, taking into account the cause, type, degree and frequency of non-compliance.

Any procedures and mechanisms under this Article entailing **binding consequences** shall be adopted by means of an **amendment** to this Protocol.

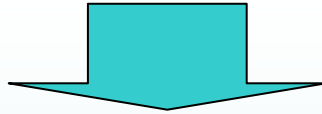
Interpretation of Article 18

- Without amendment to Protocol, NCP decided in Marrakech Accords will not have a binding power.
- If amended, there will be **double standards**; Protocol before amended and Protocol after amended.

Plus) It is difficult to amend the Protocol.
3/4 majority votes of Parties are needed!

Conclusion

--In reality, turning over the direction of NCP seems impossible in Kyoto Protocol.



--However, more participants will be needed in the future.



--Non-compliance procedure should be **promotive and supportive**, at least not punitive in **new regime**.

4 Conclusion ~ New Regime ~

Our proposals are . . .

Keeping the use of **Cap & Trade**

Calculating initial allocation

by **taking multi sector approach**

combining **Division into 3 groups**

and **the advancement system**

the treatment for the failure should be **supportive**