

*The Japanese government should have
the strategy to get Kyoto Mechanism credits*

Kyoto Mechanism group

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Structure of our presentation

1. What are Kyoto Protocol and Kyoto Mechanism?

2. The Japanese government's current Strategy and policies to get Kyoto Mechanism credits

3. Evaluation on current policies to get Kyoto Mechanism credits.

4. Our proposal for the Japanese government

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What is Kyoto Protocol

- It is an international agreement to stop global warming
- Each Annex 1 countries have the differentiated targets to limit or reduce GHG emissions from the 1990 level.

Ex.) Japan 6% USA7% EU8%

The characteristics of Kyoto Protocol

1. Limits to Annex 1 countries
2. Flexible to achieve the target

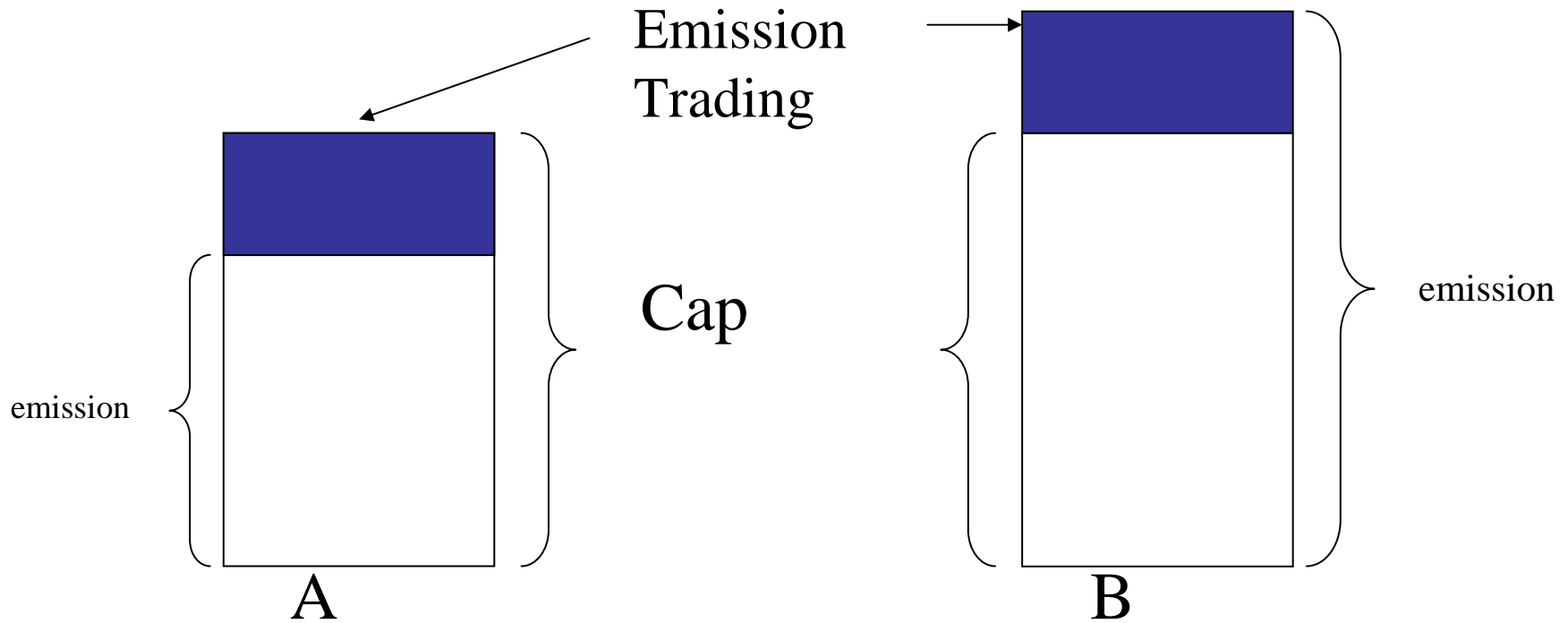
Three flexibilities

1. Flexible of what (6 types of GHGs)
 2. Flexible of when (5-years commitment period)
 3. Flexible of how and where
- Kyoto Mechanisms**

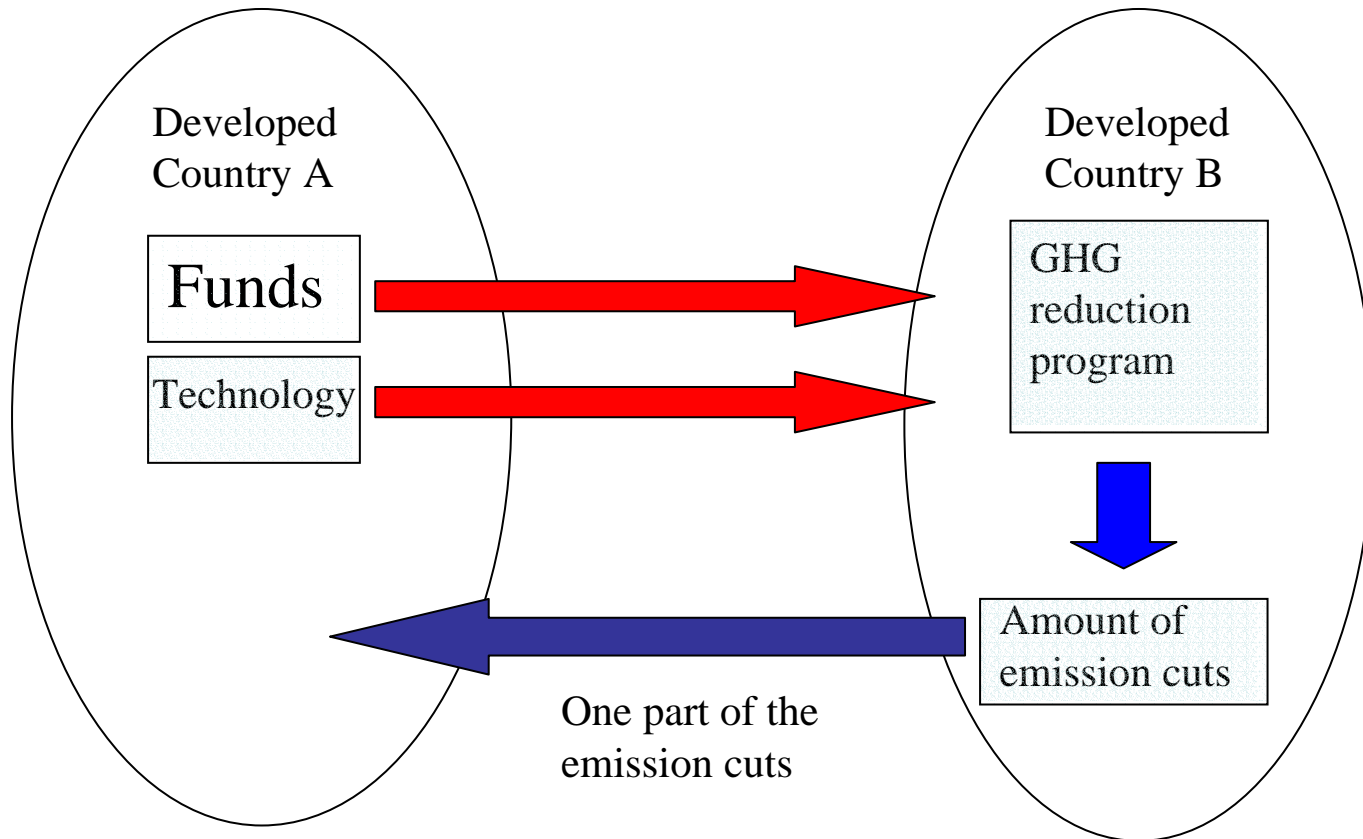
Kyoto Mechanism

- International Emission Trading (IET)
- Joint Implementation (JI)
- Clean Development Mechanism (CDM)

International Emission Trading

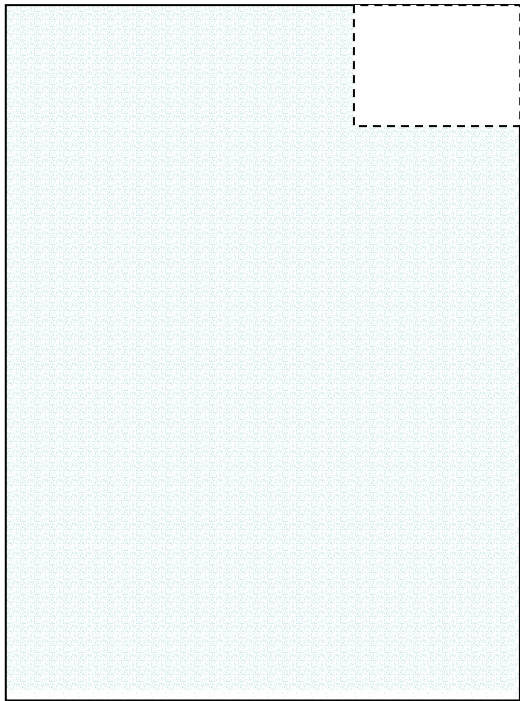


Joint Implementation

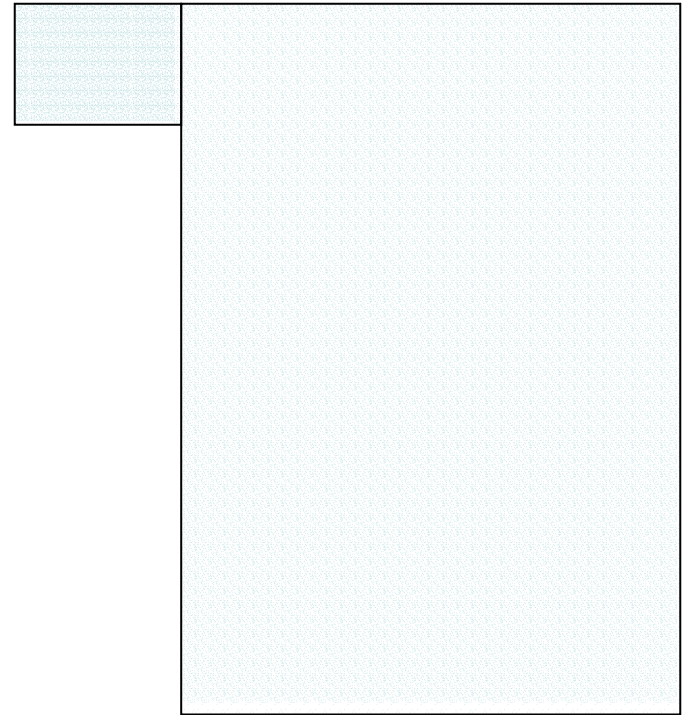


Joint Implementation

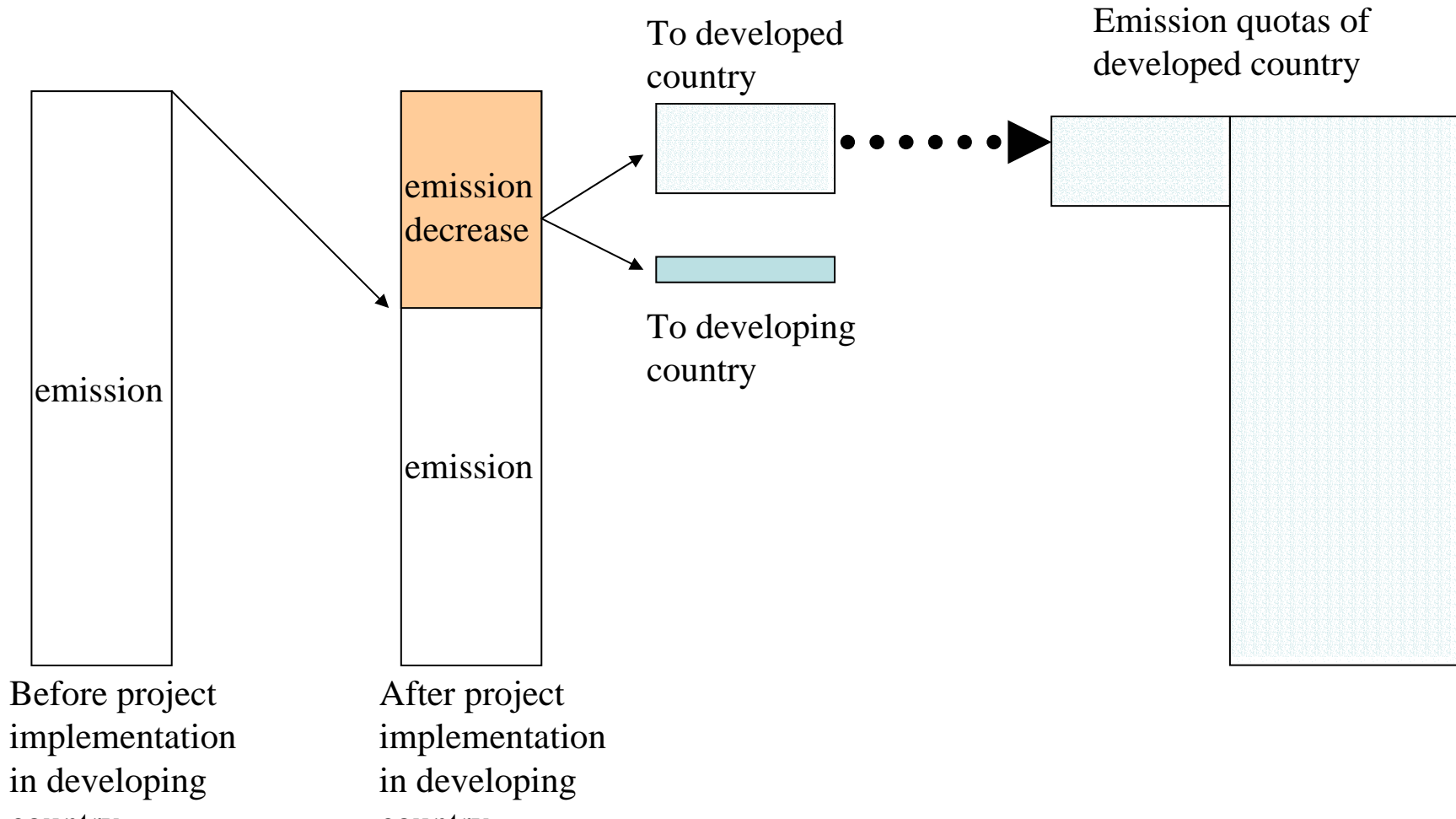
Emission quotas of developed country B



Emission quotas of developed country A



Clean Development Mechanism

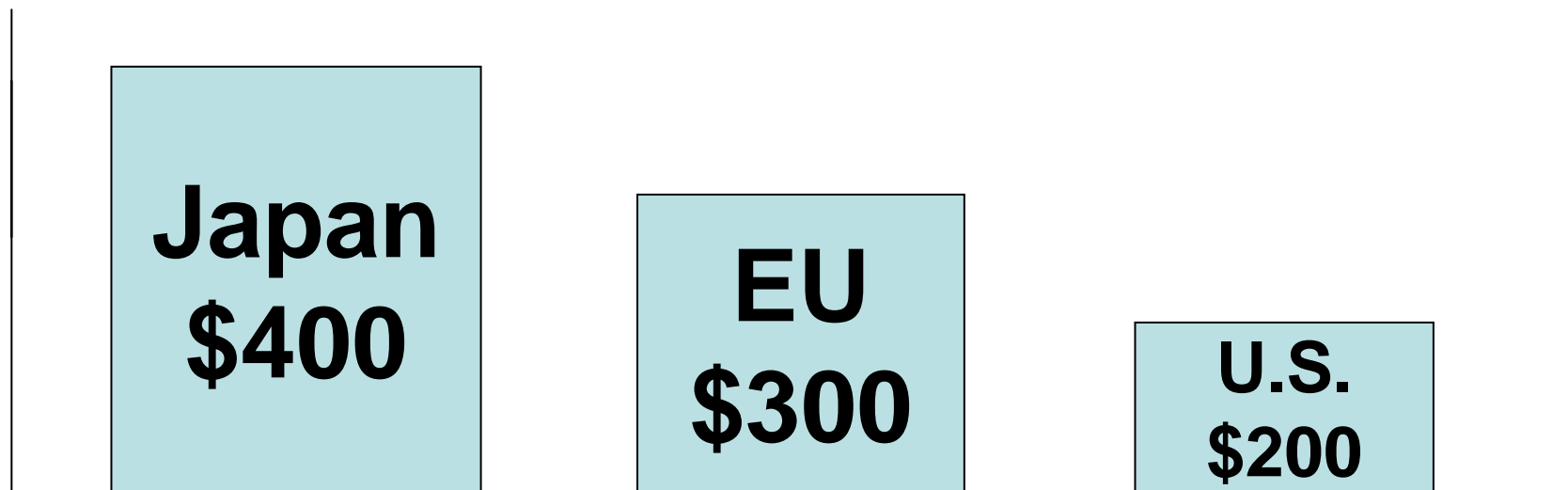


Why getting Kyoto mechanism credits is important for Japan to achieve the target cost effectively?

Marginal Abatement Cost to reduce emission

- • • the cost associated with one additional unit of reduction

(MAC, US\$/ton)



(IPCC Third Assessment Report)

Why getting Kyoto Mechanism credits are so important for Japan to achieve the target cost effectively?

The predicted prices of credits (US\$/ton) by Point Carbon

	2003	2005	2010
AAU	3-5	4-6	5-14
ERU	2-4	5-8	5-20
CER	3-5	3-5	5-20

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1. The Japanese government's strategy and Measures to get KM credits

The Climate Change Program

(to achieve 6% reduction target from 1990 level)

CO2 emissions from energy use	± 0%
CO2 emissions from non-energy use, methane emissions, and nitrous oxide emissions	- 0,5%
Emissions of HFCs, PFCs and SF6	+ 2%
Reductions by innovative technologies and change of lifestyle	- 2,0%
The use of Sinks	- 3,9%
Total	- 4.4%

Even if this target will be achieved, the Japanese government still need to compensate for **- 1.6%** of total 6% reduction by **getting Kyoto Mechanism Credits.**

The necessary amount of KM credits

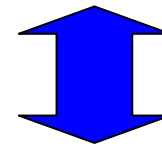
The total amount of GHG emissions in 1990

=1.23 billion ton

The proportion
of using KM

The number of years of the
first commitment period
(2008-12)

$$.23\text{billion} \times 0.016 \times 5 (\text{Year}) = \mathbf{98\text{million tons}}$$



The Japanese government needs to get

98millions tons of credits

Japanese Government's Strategy and Policies to get necessary amount of credits.

The Japanese Government's current Strategy about KM

**“Encouraging Japanese companies to carry
out CDM and JI projects for themselves”**



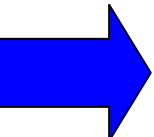
The credits that Japanese firms have cannot be used
for the government to achieve the target.

Japanese Government's Strategy and Policies to get necessary amount of credits.

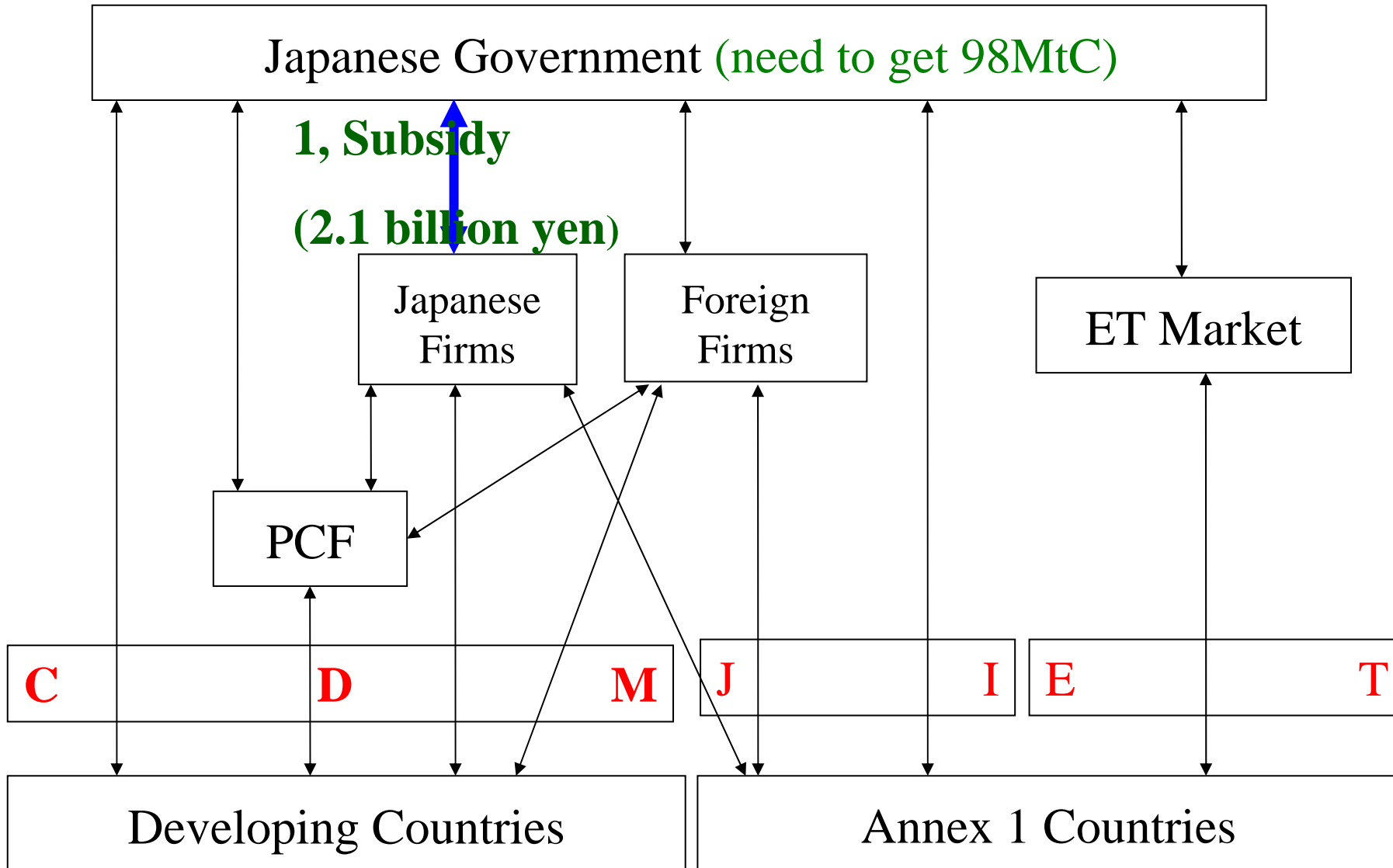
The government's **only existing policy** to get Kyoto Mechanism credits

Granting subsidy to Japanese firms that carry out CDM/JI projects. The firm has to transfer part of their credits to the account of the government.

(2.1billion yen 1990million US dollars)

 The main purpose is promoting CDM/JI projects.
It will not be a main policy to get necessary amount of credits

Japanese Ongoing Policies



Japanese Ongoing Strategy and Policies

Policy (under consideration) to get credits

**Requesting Japanese firms to contribute
(transfer) their credits to the account of the
government**

 **No certainty to get necessary amount of credit**

If the government will not take any additional policy to get credits..

**The government need to buy credits from IET market
(start from 2008) to get necessary amount of credits.**

In summary

There is no strategy to get KM credits.

The government's only existing policy to get credits is a subsidy system

Will not be a main policy to get necessary amount of credits

if there will be no additional policies

The government need to buy credits from IET market (start from 2008) to get necessary amount of credits.

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Evaluation on the current policies to get KM credits

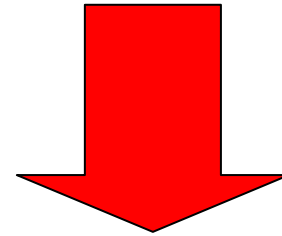
in terms of **Certainty** of getting KM credits
Cost effectiveness of getting
KM credits.

certainty of getting necessary amount of credits

Remarks

1, the government has no policies to get credits at this moment

2, without any additional policies, the government needs to buy credits in the **IET market** starting from 2008



Russia; the largest seller of **credits**, as a result of the drop in emissions level due to stagnation in the 1990s



“Hot-AIR”

certainty of getting necessary amount of credits

Projected Russian emissions (MtC)

Source: Department of economics University of Colorado

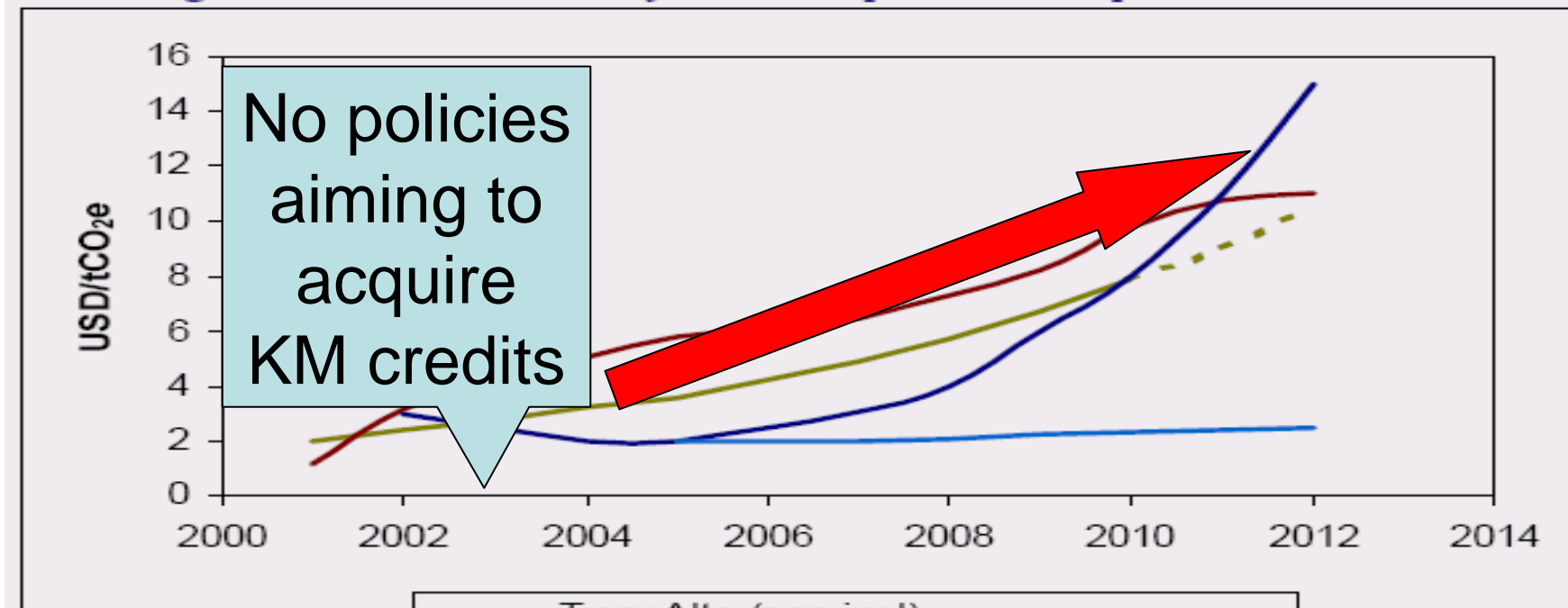
case (Economic Growth rate from 2000 to 2010)	The amount "Hot-Air" per year (during the 1 st commitment period)
Low growth(2%)	199 (995)
High growth(5,4%)	-2 (-10) Eliminated completely

There is a possibility that the amount of credits sold in the market is far too little

The Japanese Government may fail to get KM credits certainly

Cost effectiveness of getting KM credits.

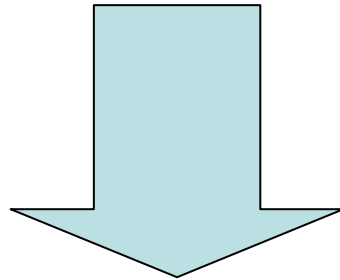
Predicted carbon prices in the period 2001-2012



The Japanese Government may fail to get KM credits cost-effectively

In summary

**The government may fail to get KM credits
cost-effectively and certainly
without any additional policies**



**The government should introduce additional
policies and change their strategy,,,**

The strategy which the Japanese
Government should take

Acquiring KM Credits
as earlier as possible

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Our proposal for the Japanese government

The government should change their strategy
from

**“Encouraging Japanese companies to carry
out CDM and JI projects for themselves”**
(need to depend on IET market)

o

**Getting KM credits certainly and cost-
effectively as soon as possible”**

Our proposal for the Japanese government

To crystallize this strategy,

‘Getting necessary amount of credits certainly and cost effectively as soon as possible’

The Japanese government need to introduce additional measures to get credits certainly and cost effectively

Policies to get KM credits certainly and cost-effectively

Option1. Purchasing carbon credits thorough tenders (The system such as ERUPT/CERUPT in the Netherlands)

Option2. Investment in PCF (Prototype Carbon Fund)

Option3. Increasing the existing subsidy for CDM/JI projects
(The Japanese government can get KM credits)

Option4. Requesting Japanese companies to contribute (transfer) their KM credits to the Japanese government account.

Option1

[Purchasing KM credits through tenders]

(The system such as Erupt/Cerupt in Netherland)

What is ERUPT/CERUPT

Option 1. Purchasing carbon credits thorough tenders

(The system such as ERUPT/CERUPT in the Netherlands)

ERUPT/CERUPT is...

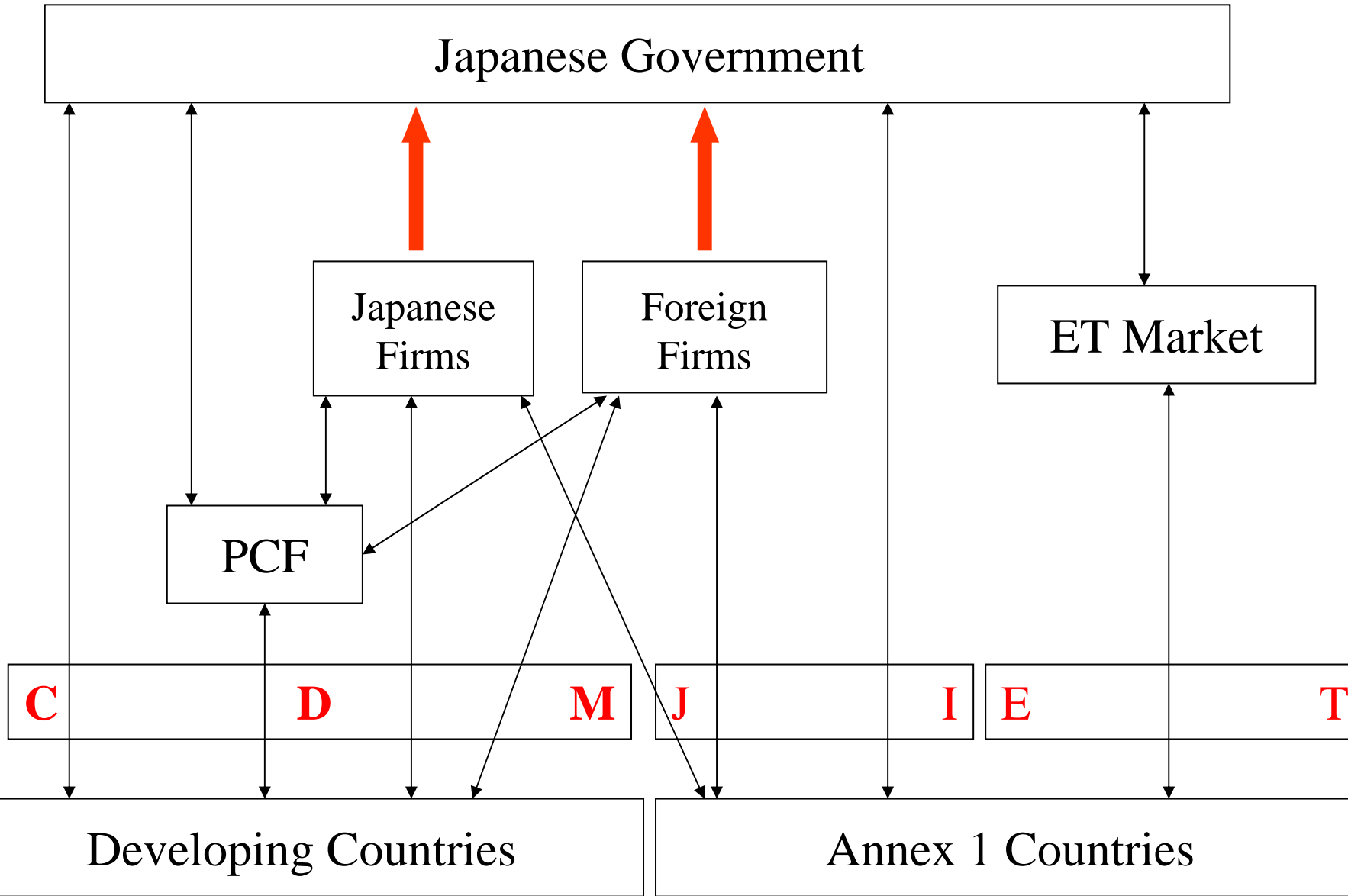
Public getting carbon credits on tender base.

(ERUPT for JI projects and CERUPT for CDM projects)

Fixing prices of credits in advance and delivering credits later.

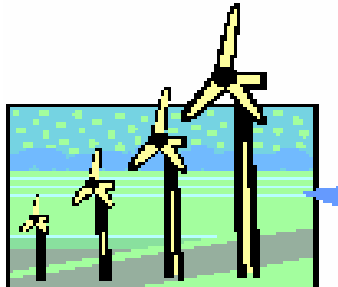
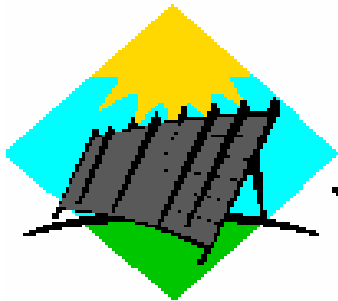
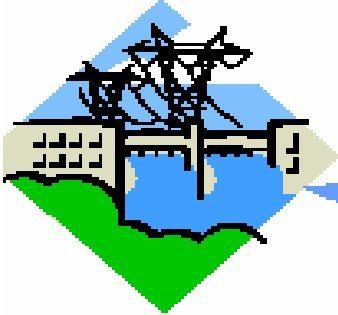
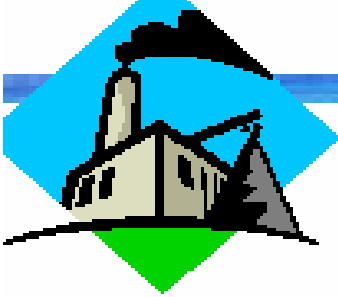
Firms can receive part of payments in advance

Possible ways to get Carbon Credits



CDM projects

Offered price



20EUR/t
-CO₂

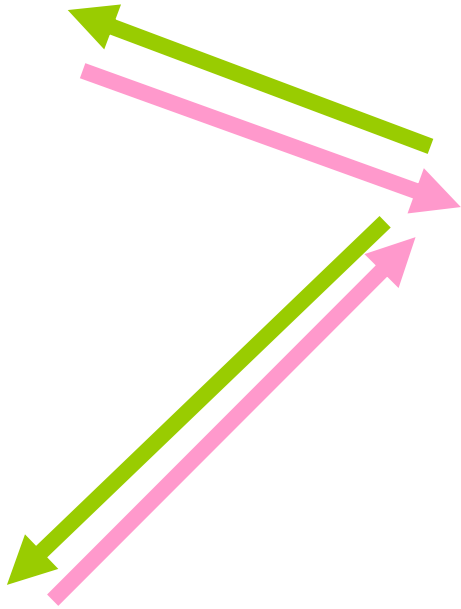
10EUR/t
-CO₂

30EUR/t
-CO₂

5EUR/t
-CO₂

The government purchases **credits**.

Dutch government



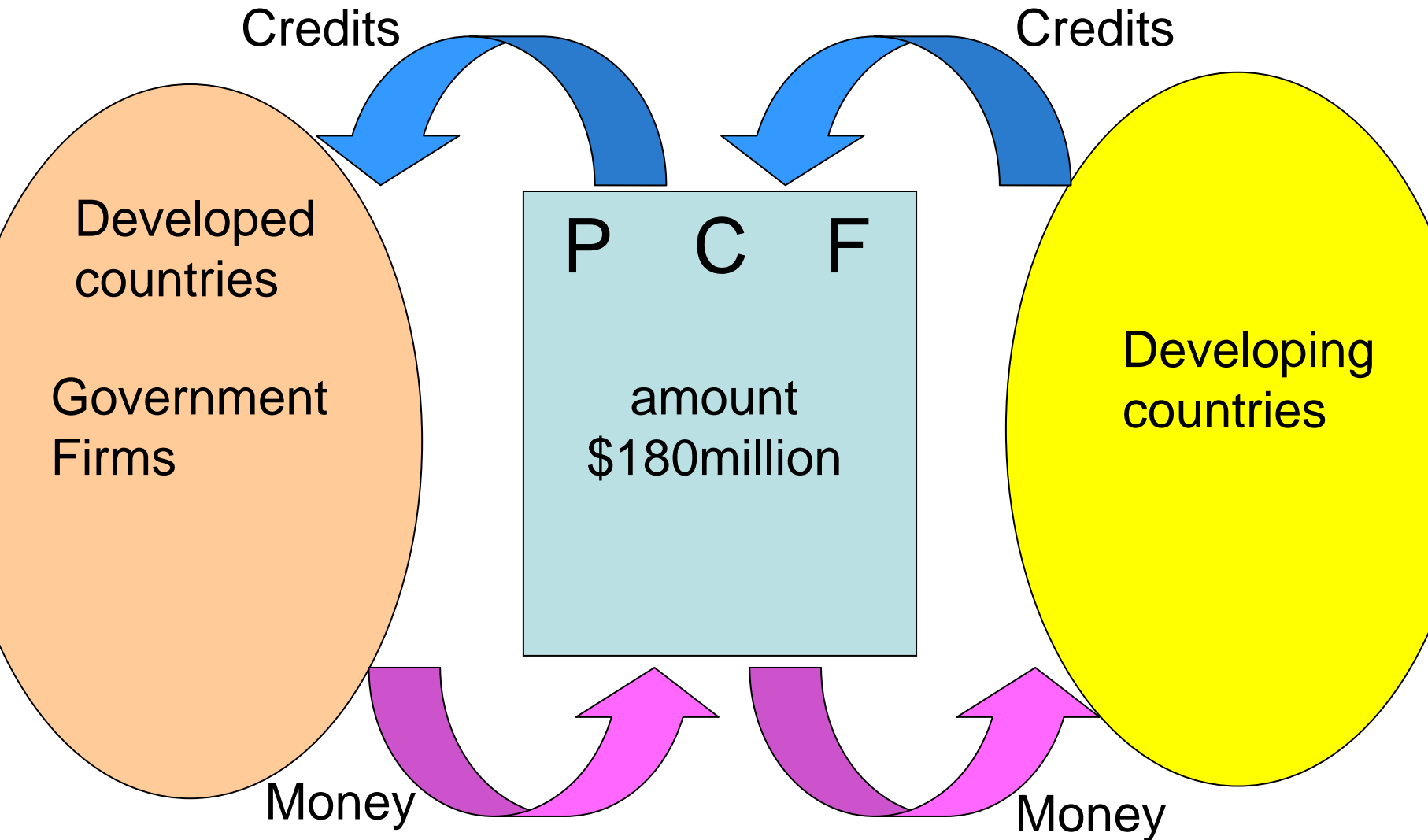
Transfer of **credits**

Option2.

Investing in PCF (prototype carbon fund)

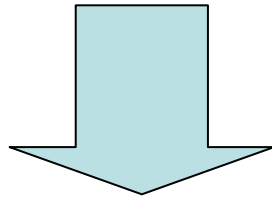
What is PCF

system of PCF



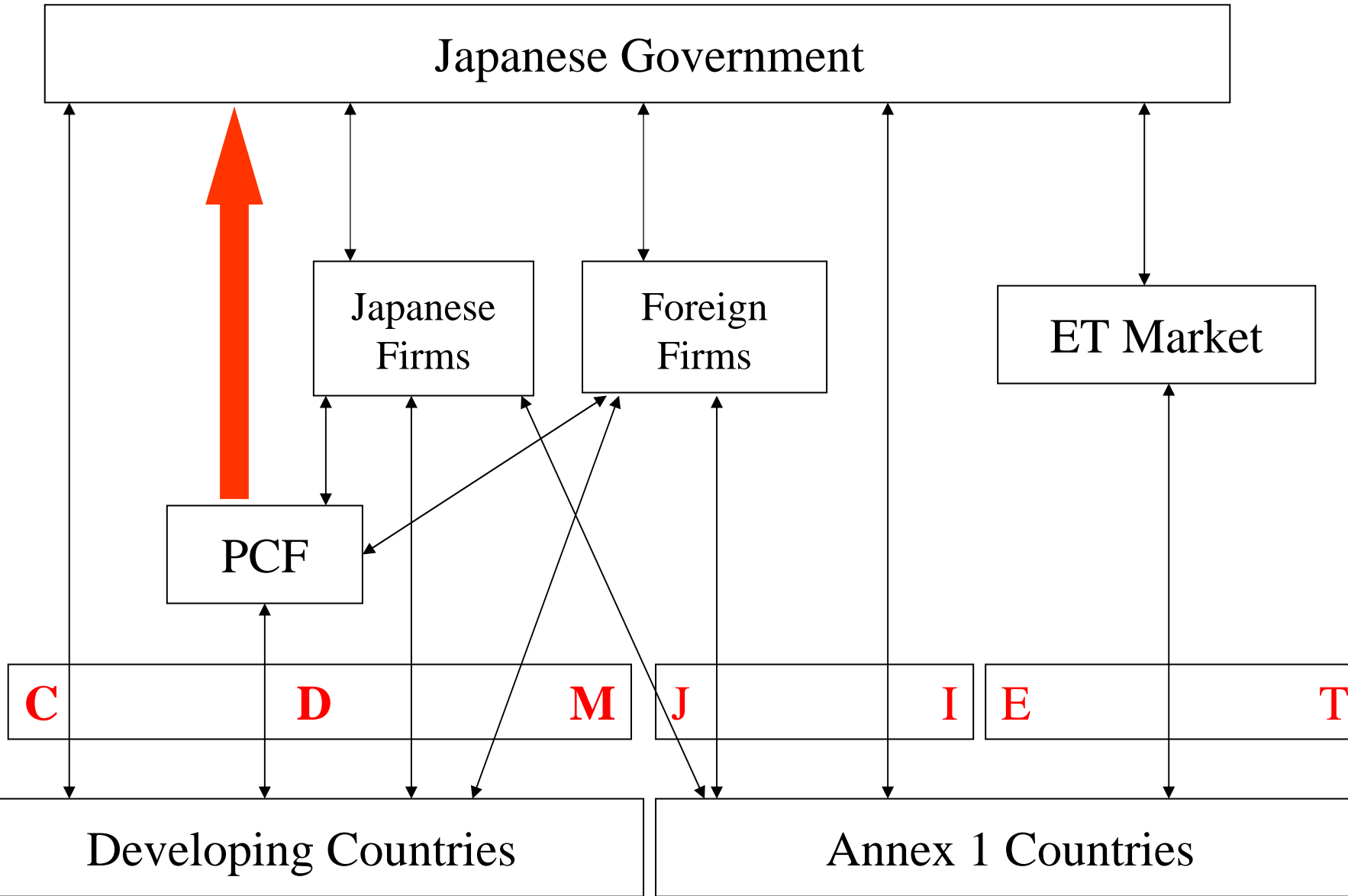
Japanese investors

Japanese firms are 8 of all 17 firms



Chubu Electric Power Co. Electricity, Japan)
Chugoku Electric Power Co.(Electricity,Japan)
Kyushu Electric Power Co. Electricity, Japan)
Mitsubishi Corp. Trade, Japan)
Mitsui (Trade, Japan)
Shikoku Power Co. Electricity, Japan)
Tohoku Electric Power Co. Electricity, Japan)
Tokyo Electric Power Co. Electricity, Japan)

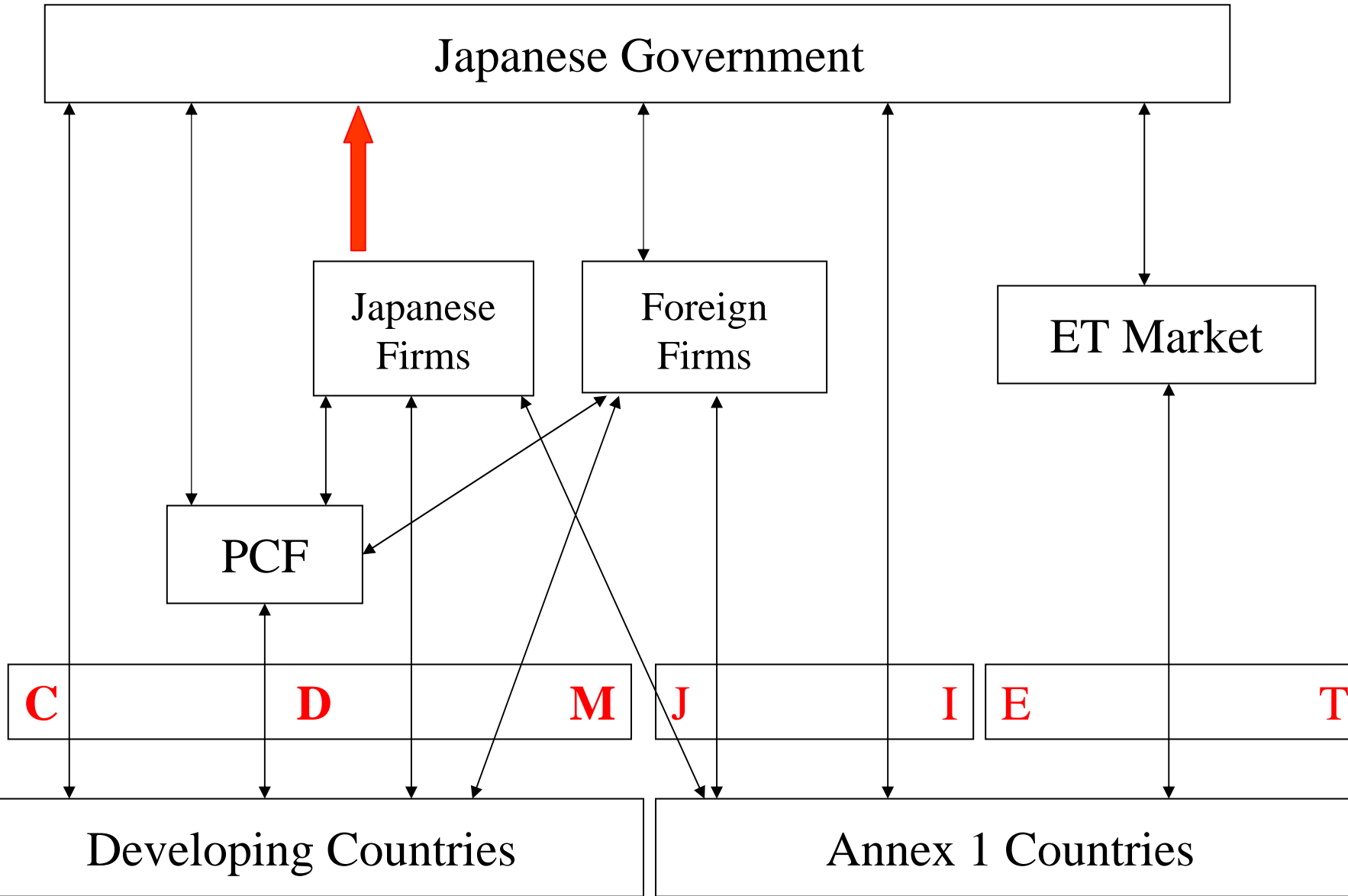
Possible ways to get Carbon Credits



Option3.

Increasing subsidy for CDM/JI projects

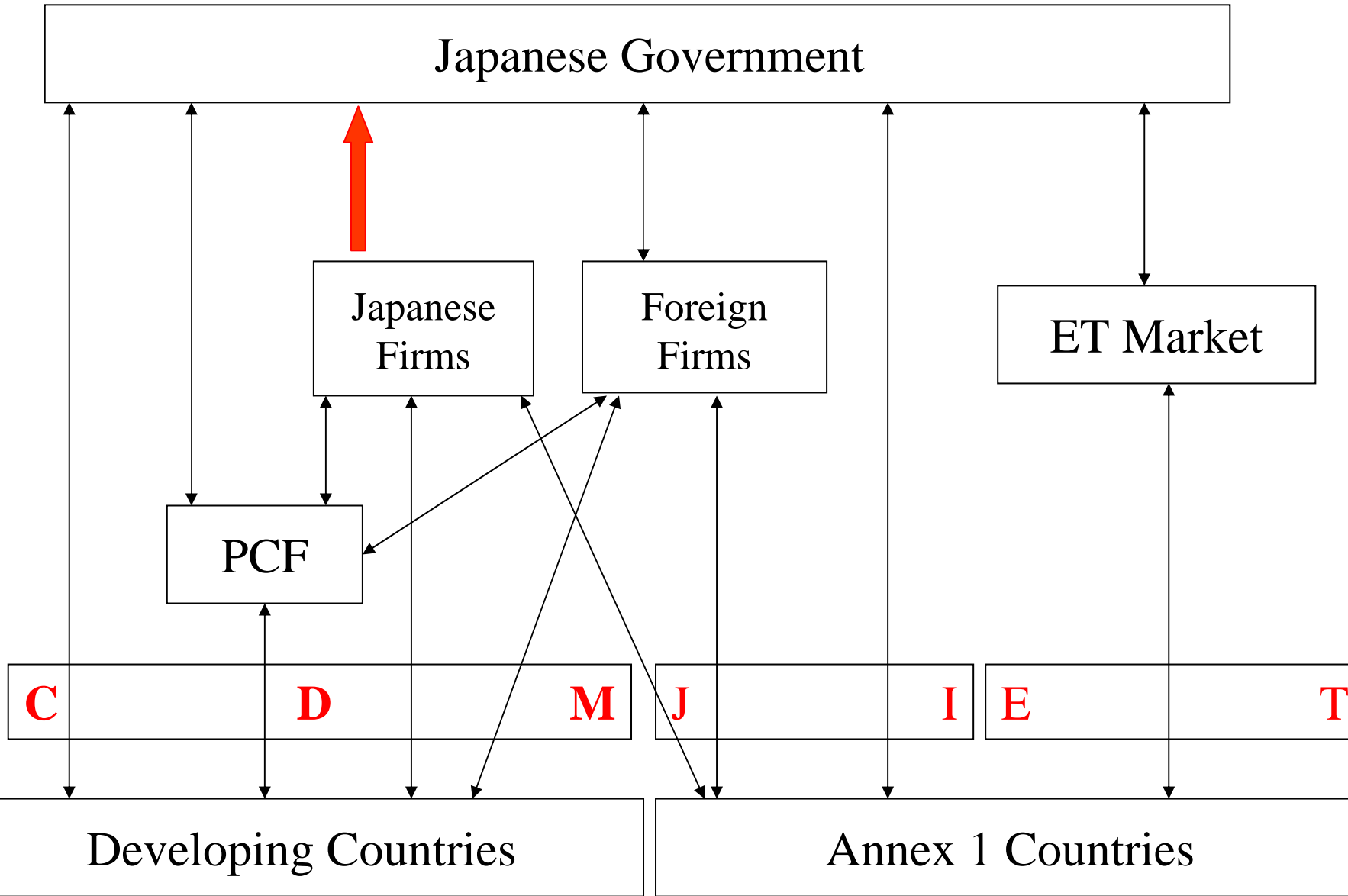
Possible ways to get Carbon Credits



Option 4

Requesting Japanese companies to contribute (transfer) their KM credits to the Japanese government account.

Possible ways to get Carbon Credits



The criteria which must be considered when the government introduce these policies.

. certainty of acquiring necessary amount of credits



More important

. cost-effectiveness

. transfer of the Japanese government's money from Japan to foreign countries

. certainty of acquiring credits

Option1(ERUPT/CERUPT) and option2(investment in PCF)

➡ It is possible to get credits from **all over the world.**

more certainty of acquiring necessary amount of credits

Option3(increasing subsidy) and 4 (requesting firms to contribute their credits)

➡ The sellers are limited to **domestic firms.**

less certainty of acquiring necessary amount of credits

. cost-effectiveness

Option1(ERUPT/CERUPT) and option2(investment in PCF)

⇒ The Japanese government can get credits at **international market prices.**

(Ex. about 6 to 12 dollar/t-CO₂; ERUPT/CERUPT 3dollar/t-CO₂; PCF)

Cost-effective

Option3(increasing subsidy) and 4 (requesting firms to contribute their credits)

⇒ The sellers are limited to **domestic firms.**

Not cost-effective

. transfer of the Japanese government's money from Japan to foreign countries

Option1(ERUPT/CERUPT) and option2(investment in PCF)

- There are **transfer of the Japanese government's money** to foreign countries.

Option3(increasing subsidy) and 4 (requesting firms to contribute their credits)

- There are **no transfer of the Japanese government's money** to foreign countries.

	Option1 Purchasing credits thorough tenders	Option2 Investment in PCF	Option3 Increasing subsidy	Option4 Requesting firms to contribute credits
certainty of acquiring credits				×
cost- effectiveness				
transfer of the government's money	×	×		

Technically, it is possible to introduce every policy if you do not think about budget restriction.

★ ***The policy mix that the Japanese government should introduce*** ★

Option1 and option2 should be introduced immediately.

Option 4 cannot be main policy to get credits.

Option3 also cannot be a main policy. But, this system should be continued.

→ This is effective to increase total amount of credits in Japan

Conclusion!!



The Japanese government should change the strategy from

Encouraging Japanese companies to carry out CDM and JI projects for themselves”

Getting KM credits certainly and cost effectively as soon as possible”

and introduced these policies immediately!

- . Introducing ERUPT/CERUPT system**
- . Investing in PCF**