

*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 is Kyoto Protocol and Kyoto Mechanism?

2. Why Japan should achieve the target of first commitment period?

3. Why getting KM credits are important for Japan to achieve the target cost effectively?

4. Japan's current strategy and concrete measures to get KM credits. Is this adequate or not?

5. 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.

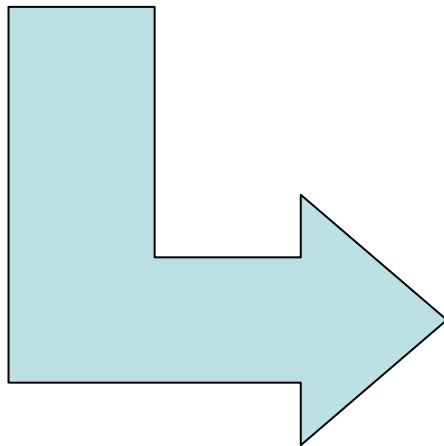
Ex.) Japan 6% USA7% EU8%

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

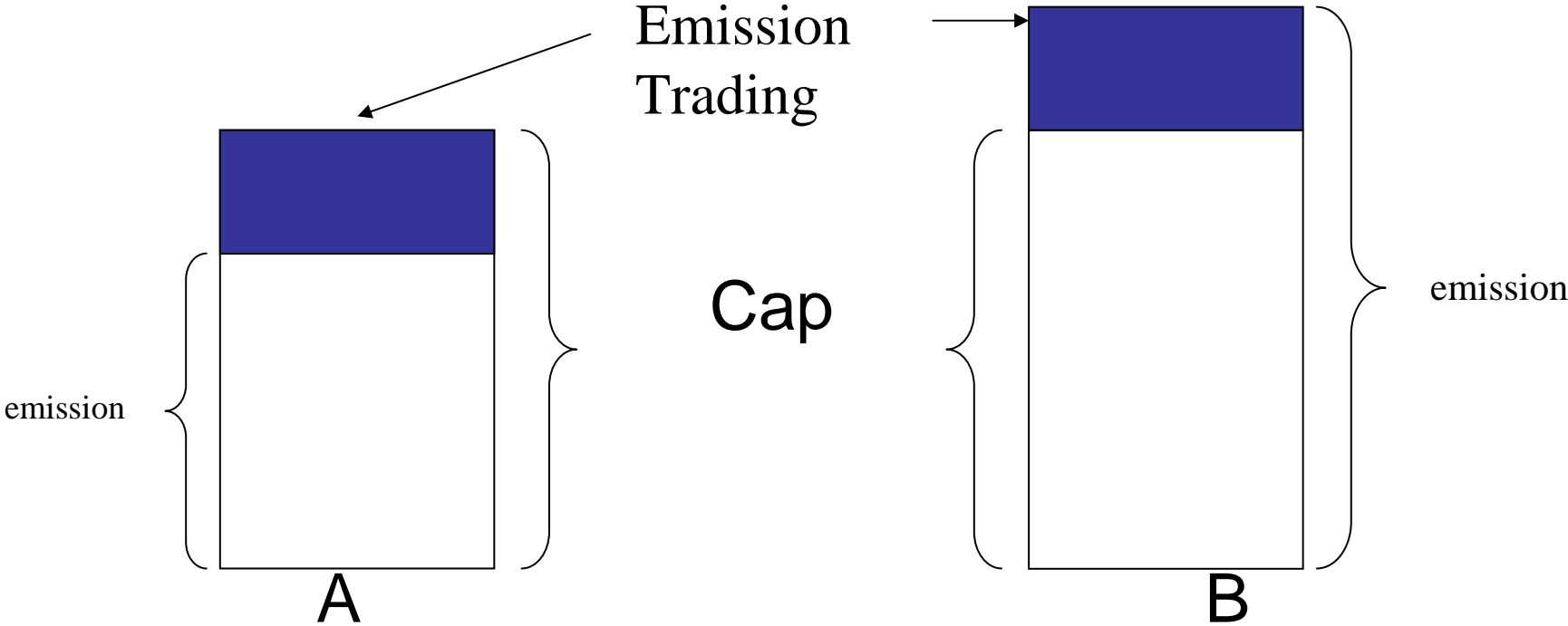


Kyoto Mechanism

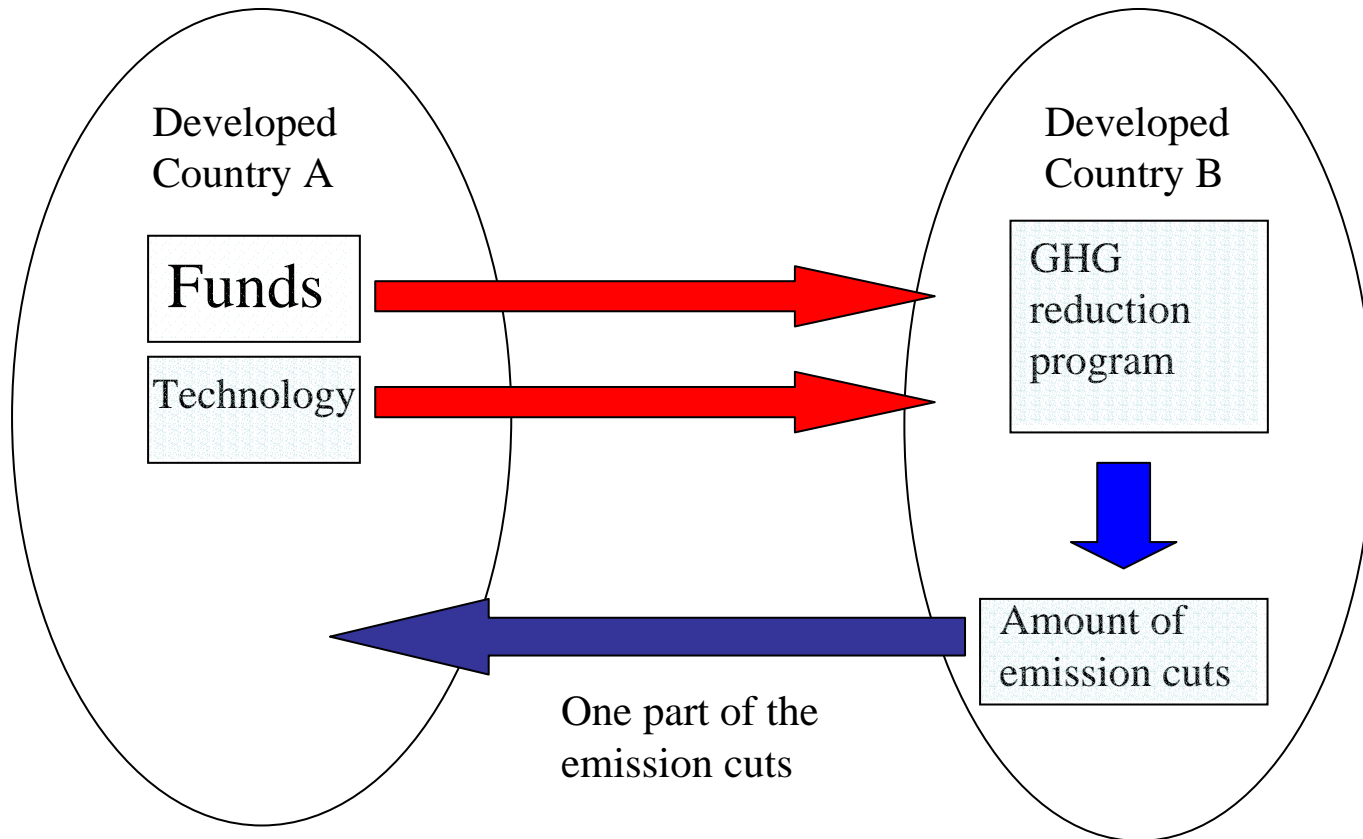
Kyoto Mechanism

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

International Emission Trading

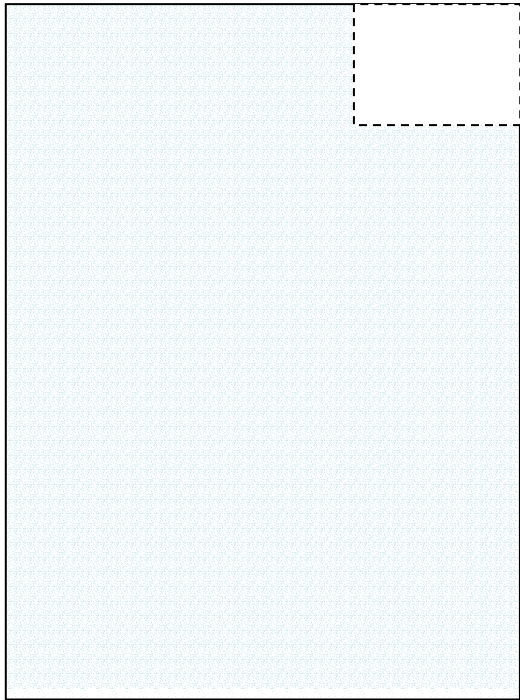


Joint Implementation

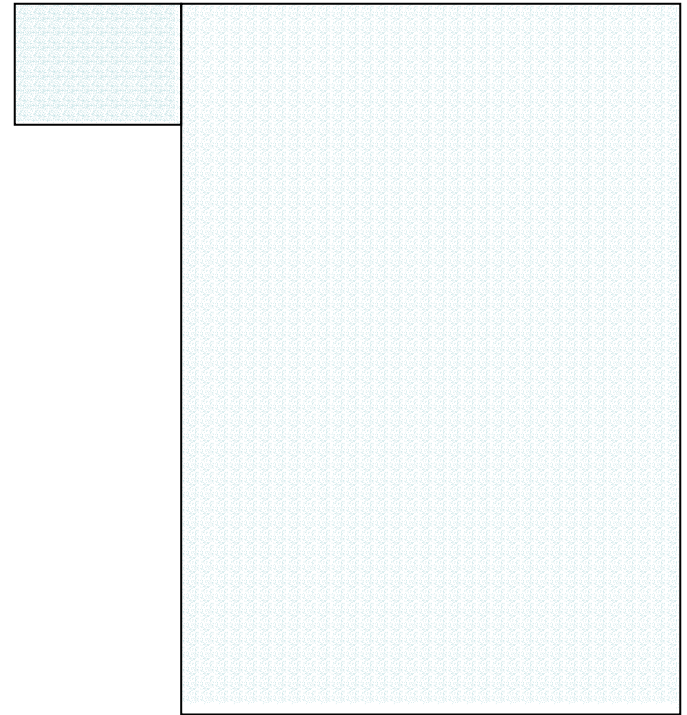


Joint Implementation

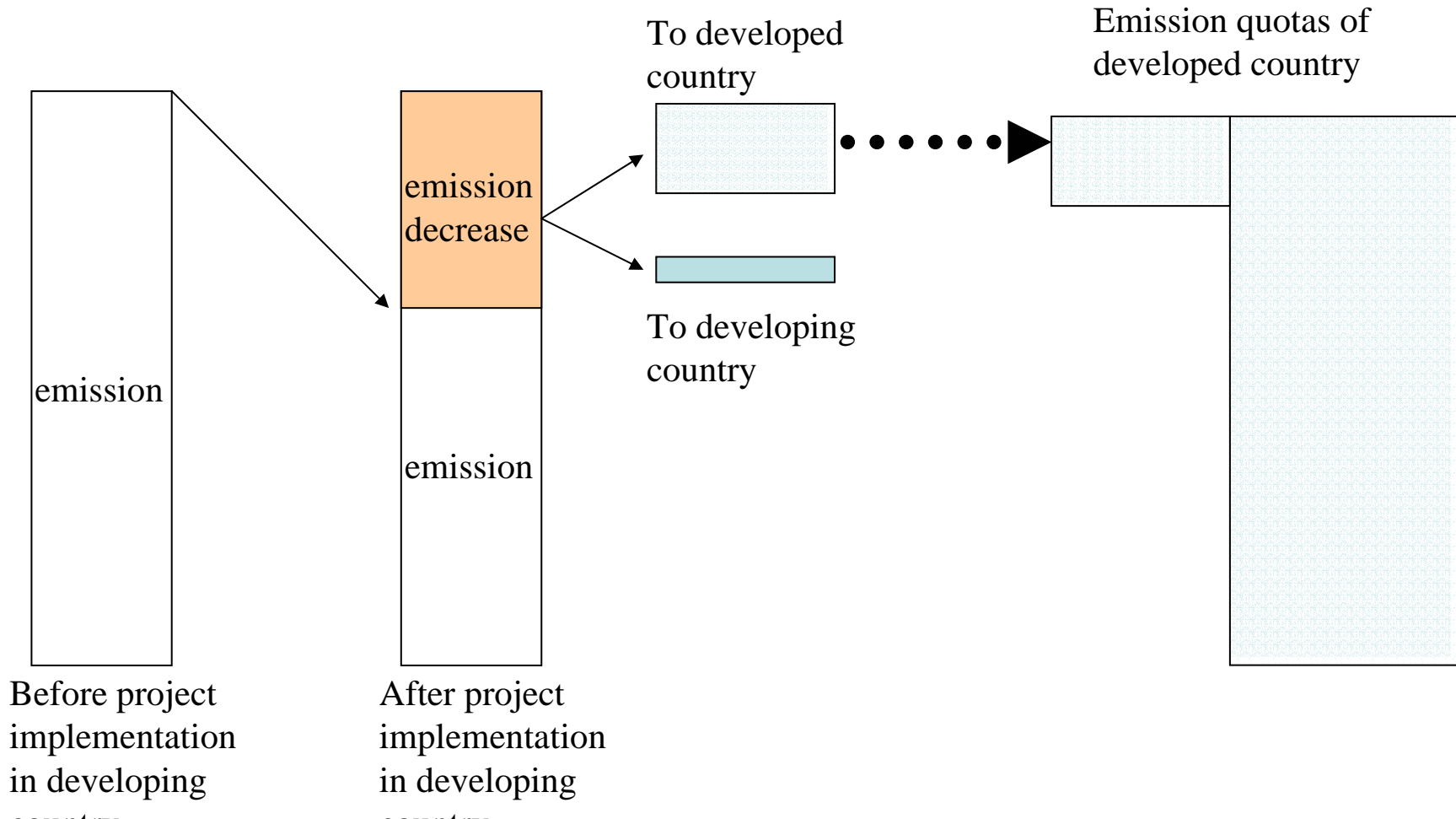
Emission quotas of developed country B



Emission quotas of developed country A



Clean Development Mechanism



However,

Kyoto Protocol has not come into force

Because Kyoto protocol enter into force on the 90th day after the date on which

more than 55 Parties to the Convention to ratify
120 parties have ratified! (clear!)

Total CO2 emission of ratified Annex I Parties in 1990

55%

Total CO2 emission of Annex I Parties in 1990

covered only 44.2% (still need more than 10.8%)

CO2 emission of Annex Parties in 1990

Annex Parties that have not ratified KP	
USA	36.1%
Russia	17.4%
Australia	2.1%

More than 10.8% are needed

USA declared that they withdrew from KP.

If Russia will ratify KP, KP will enter into force!

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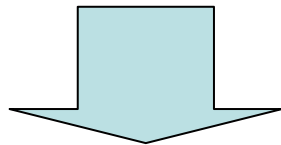
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Why Japan should achieve the target of the first commitment period?

1. Kyoto Protocol target is **legally binding target**.

What does legally binding target mean?

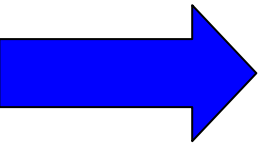


If a country will fail to achieve it, it is going to be **the violation of international law.**

Why Japan should achieve the target of the first commitment period?

2. Very **strict penalty provisions** for a country that will not achieve the target of the first commitment period

According to Marrakech agreement(COP7),

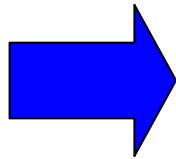


If a country will not be in compliance with its commitment...they shall apply the following consequences.”

(a) Deducting from the party's assigned amount for the second commitment period...equal to 1.3 times the amount in tones of excess emissions

(a) Excess of amount

Assigned amount of First commitment period



**Deducting amount
= $(a) \times 1.3$**

**Actual amount of
Second commitment
Period**

This is going to be decided in **2007**

Assigned amount of second commitment period

b) compliance action plan (to achieve the commitment for the second commitment period.)

c) Suspension of the eligibility to make transfer under Article 17 of the Protocol
= International emission trading

Why getting Kyoto mechanism credits are so 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 GHG solution

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

- *If Japan will not get any KM credits, marginal abatement cost will be \$400.*
- *KM credits prices will be \$3-20.*

However, Japan cannot totally depend on Kyoto Mechanism to achieve the target.

Because...

According to the Kyoto Protocol,

CDM

Annex I may use the CER to contribute to compliance with **part** of their emission commitments

JI

CERU shall be **supplemental** to domestic actions

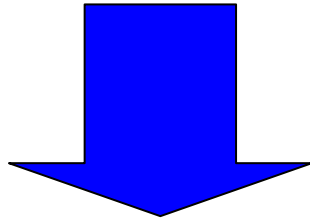
Emission Trading

Emission trading shall be **supplemental** to domestic actions

This is one of the reasons why

Japan plans to use only **1.6% (98,000,000 tons)** of total 6% reduction from 1990 level.

In this presentation, we will not estimate the appropriate quantity of KM credits for Japan to achieve the target...



What we are going to do is **evaluating whether Japan's current KM strategy and concrete policy and measures are adequate or not to** get at least 98000,000 ton of credits

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Japanese strategies and policies

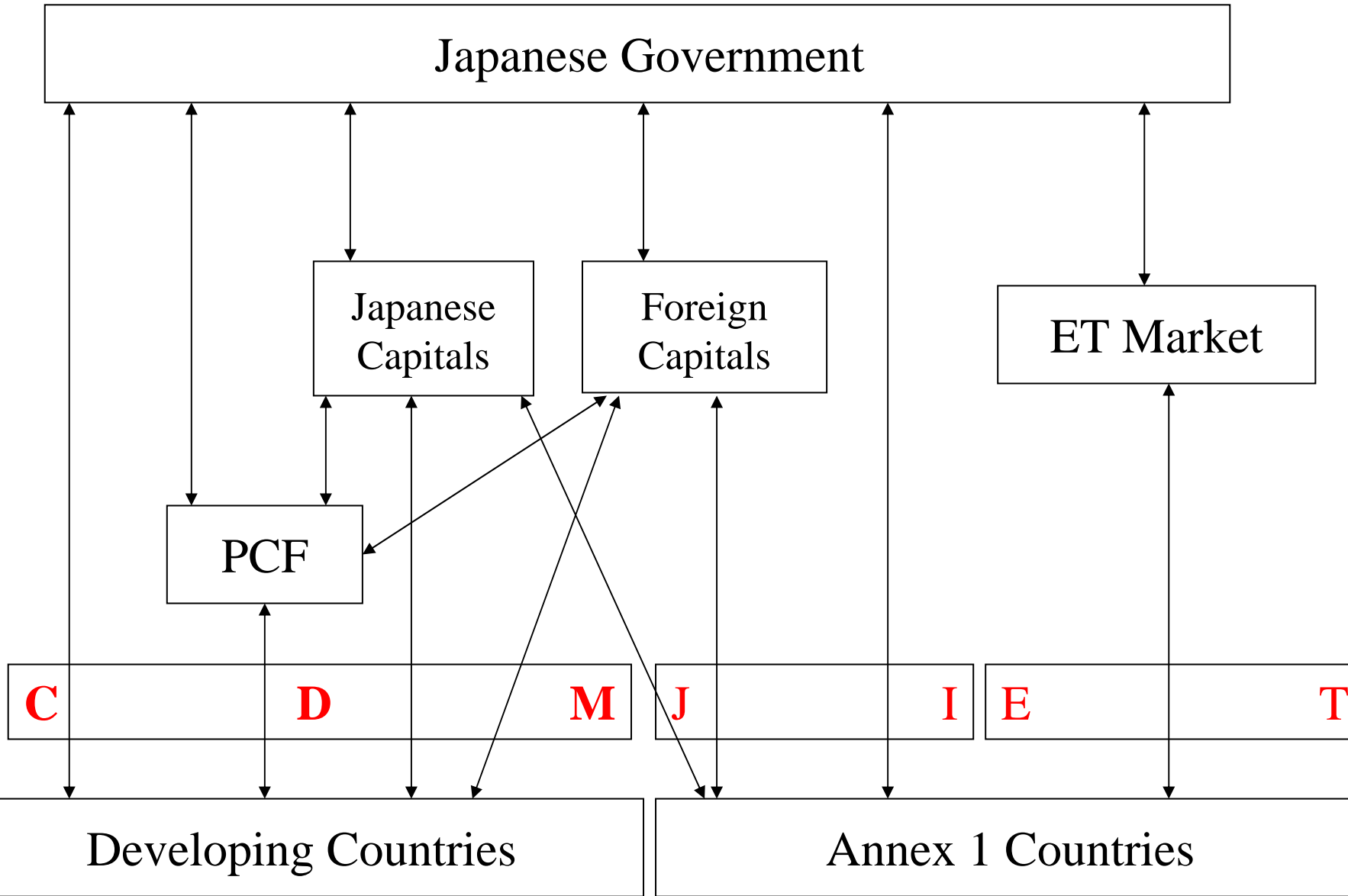
Japanese ongoing strategy

- Encouraging Japanese companies to plan CDM and JI projects for themselves

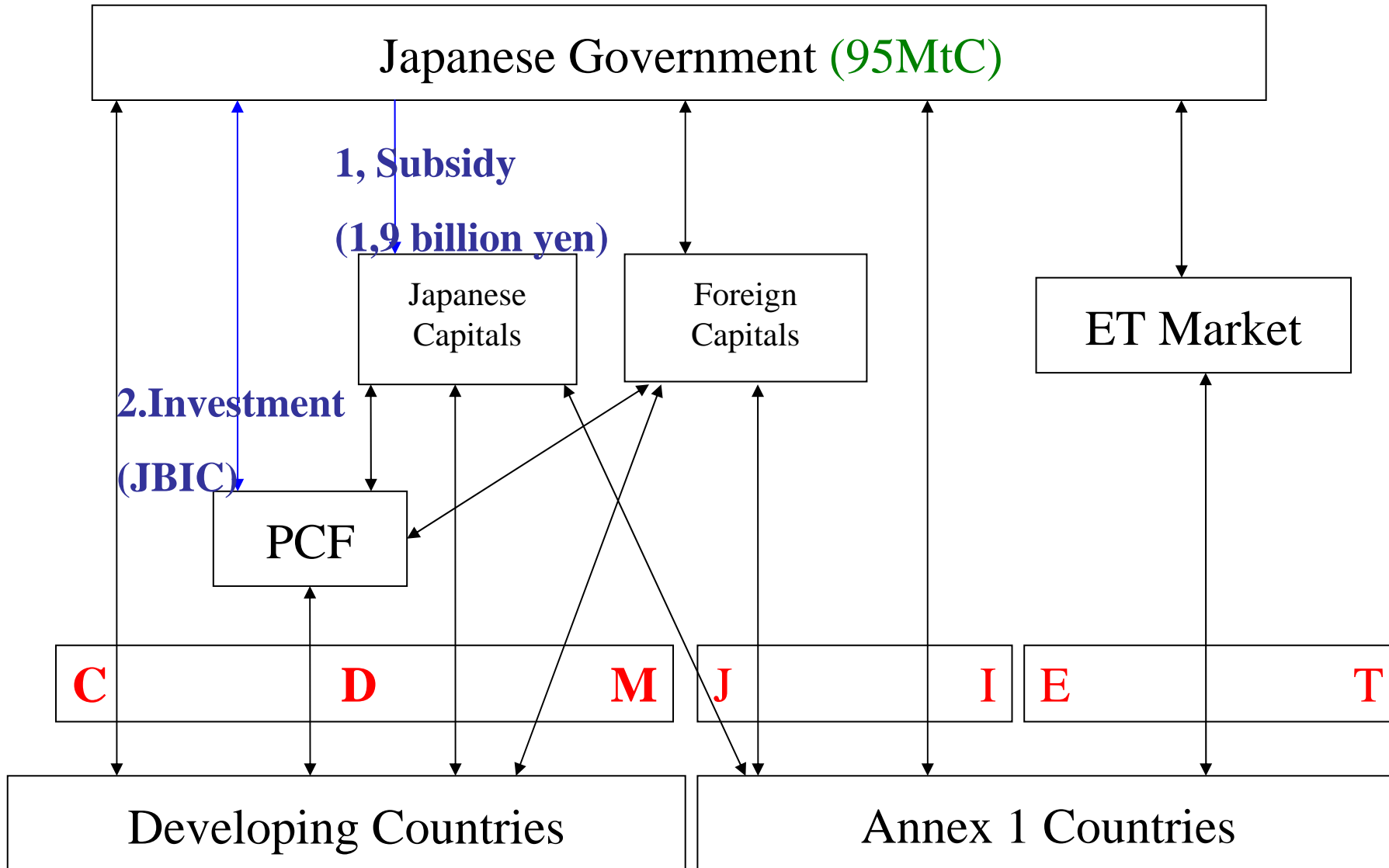
Japanese ongoing policies to get KM credits

- 1, Granting a subsidy of 1,9 billion yen to Japanese Capitals
- 2, Investing in PCF(JBIC)

Possible ways to get Carbon Credits



Japanese Ongoing Policies



Current Situation

Japanese Capitals

Investing in PCF = **12MtC**

The total amount of projects approved by the government.

4 CDM projects and 1 JI project)

$2.6\text{MtC/year(CDM)} \times 9 + 60,000\text{C/year(JI)} \times 5$
= 23.4MtC

Japan carbon fund = **20MtC** (6billion yen/3\$)

The maximum amount of credits Japanese Capitals get = **55.4MtC**

Problems of Japanese Strategies and Policies

No guarantee that credits Japanese capitals get are transferred into the Japanese government's account

Maximum credits Japanese capitals would get is 55.4MtC,

→ too little to make up for 98million CO₂.

Heavily depending on ET after 2008

Market Analysis 1

- US, the largest buyer, withdrew from KP
- The states of the Former Soviet Union, large sellers of emission permits as a result of the drop in emissions level due to economic downturn

	1990	Target	2010	Cutback(%)	Bubble
<i>Low growth</i>					
Russia	647	647	448	-44	199
FSU	1026	1005	742	-35	263
<i>High growth</i>					
Russia	647	647	649	0.3	-2
FSU	1026	1005	1008	0.3	-3
<i>Reference case</i>					
Russia	647	647	568	-14	79
FSU	1026	1005	901	-11.5	104

Table 7. Projected Russian and FSU emissions (MtC).

The Kyoto Protocol: "Hot air" for Russia? Sergey V. Paltsev

Overall demand for emission permit is likely to be lower than supply of "hot air" from FSU.

Market Analysis 2

Scenario

- FSU would exert market power in the Carbon Credit Market

The predicted price of carbon credit (\$ / tC)

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

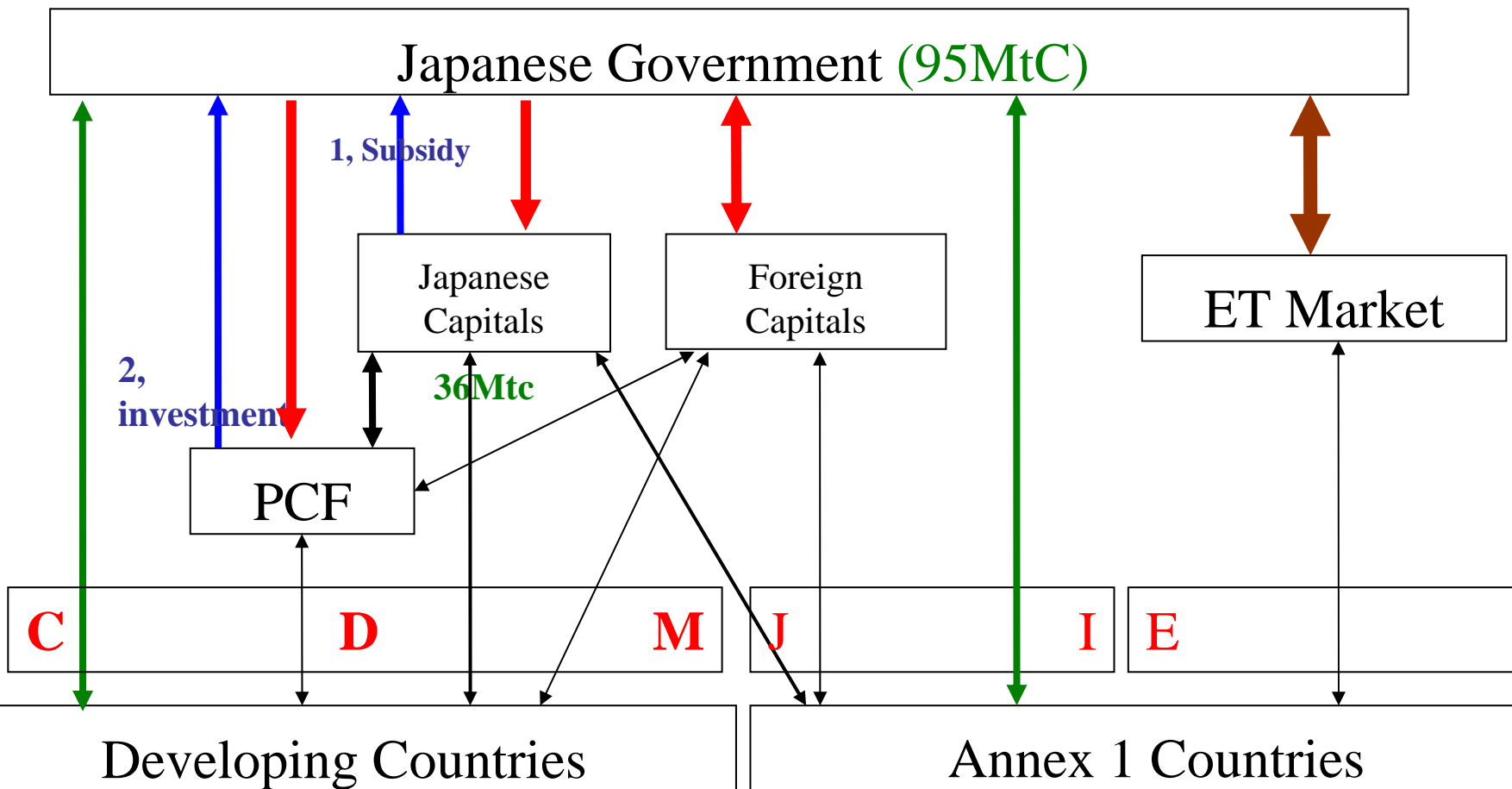
The strategy that Japanese government should have.

Diversifying carbon credits suppliers
buying carbon credit at low cost
in an early stage

in order to get credits cost effectively!

General Recommendation

- current measures
- not cost effective way to get credits
- start from 2008
- possible ways to get credits cost effectively



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Our proposal for the Japanese government

What concrete measures are needed for the Japanese government to crystallize this strategy?

1. The policies to get Kyoto Mechanism credits cost-effectively.

2. The policies to increase the amount of KM credits that the Japanese government can get.

Our proposal for the Japanese government

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1. Policies to get KM credits cost-effectively

Option 1. Purchasing carbon credits thorough tenders
(The system such as ERUPT/CERUPT in the Netherlands)

Option 2. Investment in PCF (Prototype Carbon Fund)

Option 3. Increasing the existing subsidy for CDM/JI projects

(The Japanese government can get KM credits)

Option 4. Requesting Japanese companies to contribute their KM credits to the Japanese government account

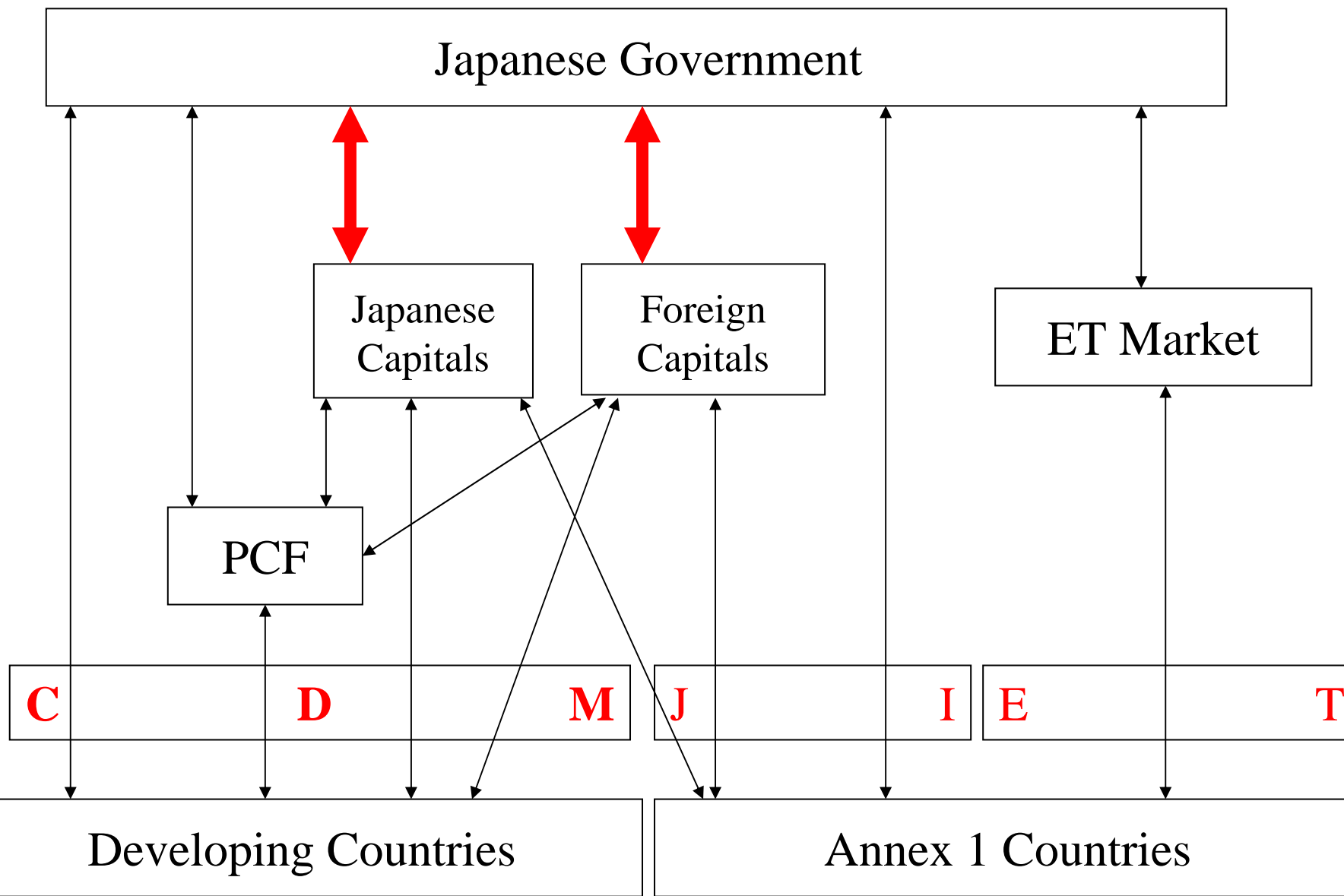
Option1

Purchasing KM credits through tenders
(The system such as Erupt/Cerupt in Netherland)

What is ERUPT/CERUPT

Merits and demerits

Possible ways to get Carbon Credits



Option 1. Purchasing carbon credits thorough tenders

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

ERUPT/CERUPT is...

Public procurement carbon credits on tender base.

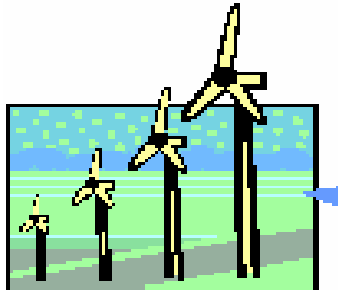
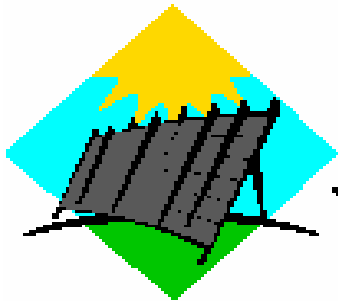
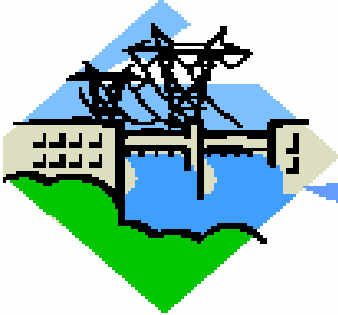
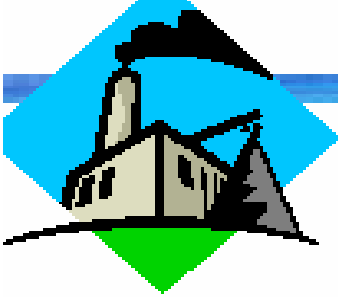
ERUPT for JI projects and CERUPT for CDM projects)

Fixing prices of credits in advance and delivering credits later.

Firms can receive payments in advance

CDM projects

Offered price



20EUR/t
-CO₂

10EUR/t
-CO₂

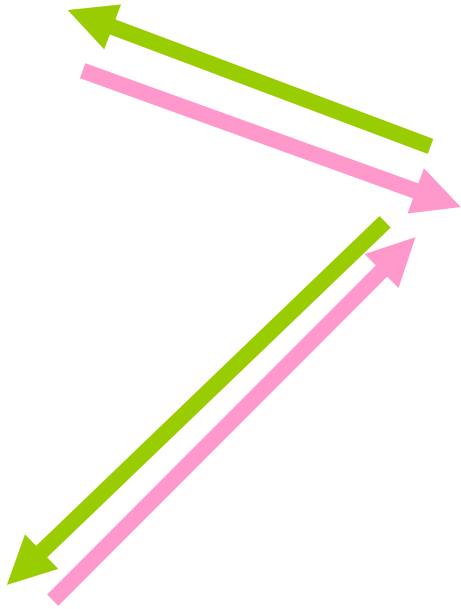
30EUR/t
-CO₂

5EUR/t
-CO₂

The government provides funds.

Dutch government

Transfer of credits



Merits of option 1

- The Japanese government **can get KM credits at low prices**, because this system is on tender base.

(About 5 to 10 EUR/t-CO₂: ERUPT/CERUPT)

- The Japanese government has free choices between CDM/JI projects on his own.

Demerits of option 1

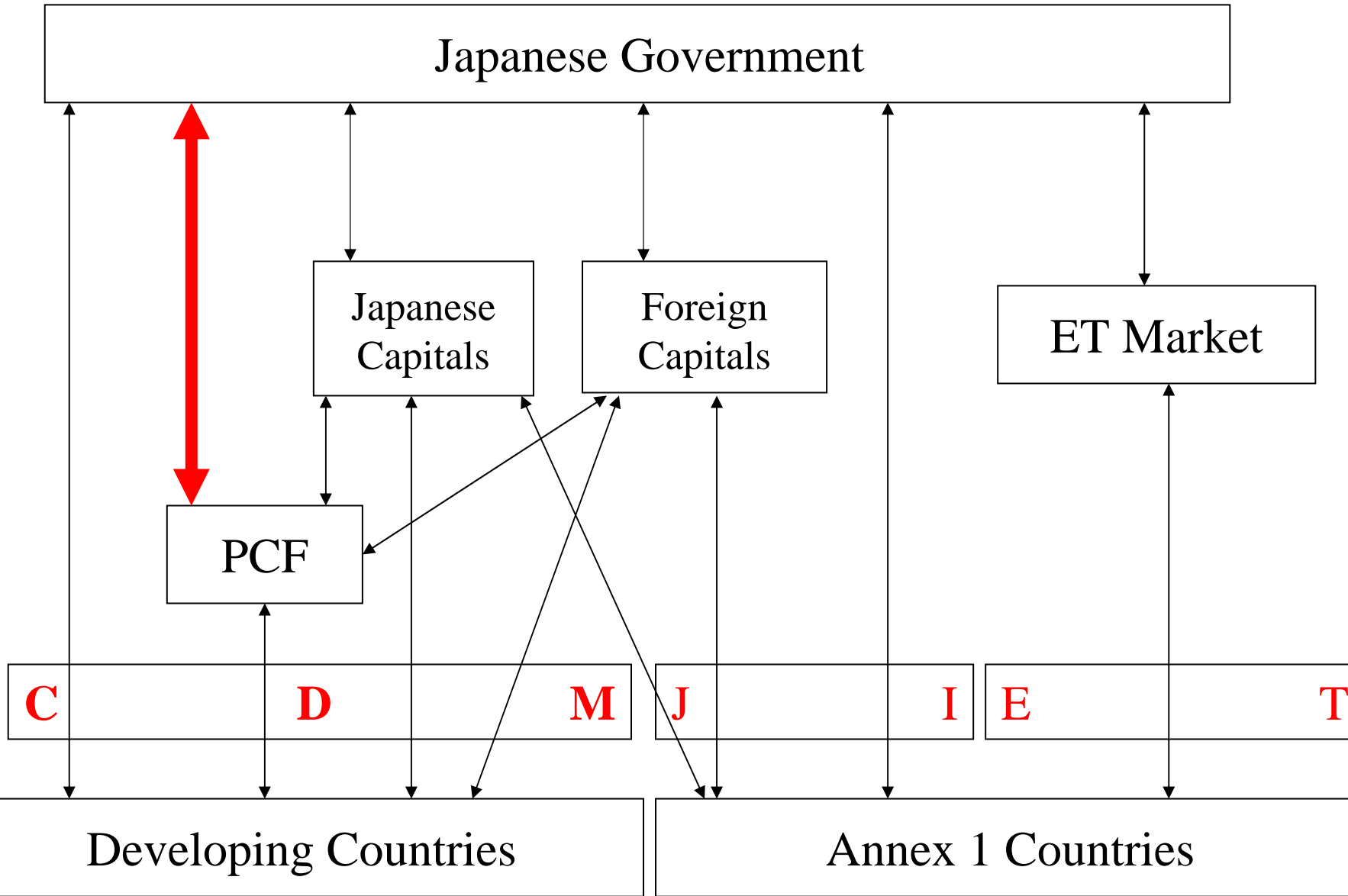
outflow of the Japanese government's money from Japan to foreign countries

Option2.

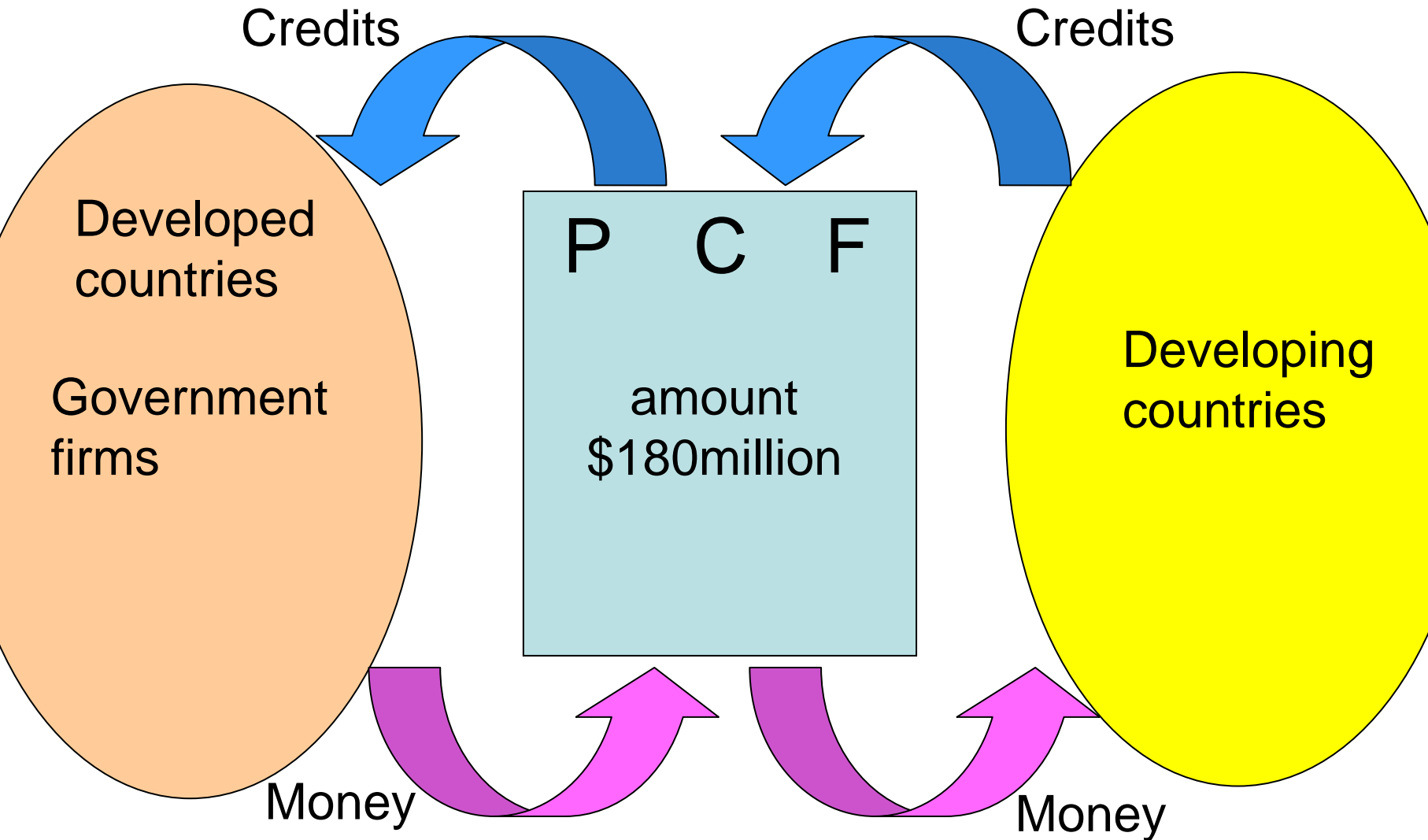
Investing in PCF (prototype carbon fund)

Merits and demerits

Possible ways to get Carbon Credits



system of PCF



Merits of option2

Japanese government can acquire credits at low prices. (3dollar/CO₂-t)

Promoting technology transfer to developing countries

PCF invests in low-profit projects and can increase the number of projects.

Japanese government do not need to investigate in CDM/JI to do project.

The Japanese government can get credits only by investments.

Demerits of option2

Japan cannot stock Knowledge to do CDM/JI projects.

PCF can provide information and skills of projects accumulated by World Bank.

The amount of Credits that can be acquired by PCF is limited to about 60 million tones credits.

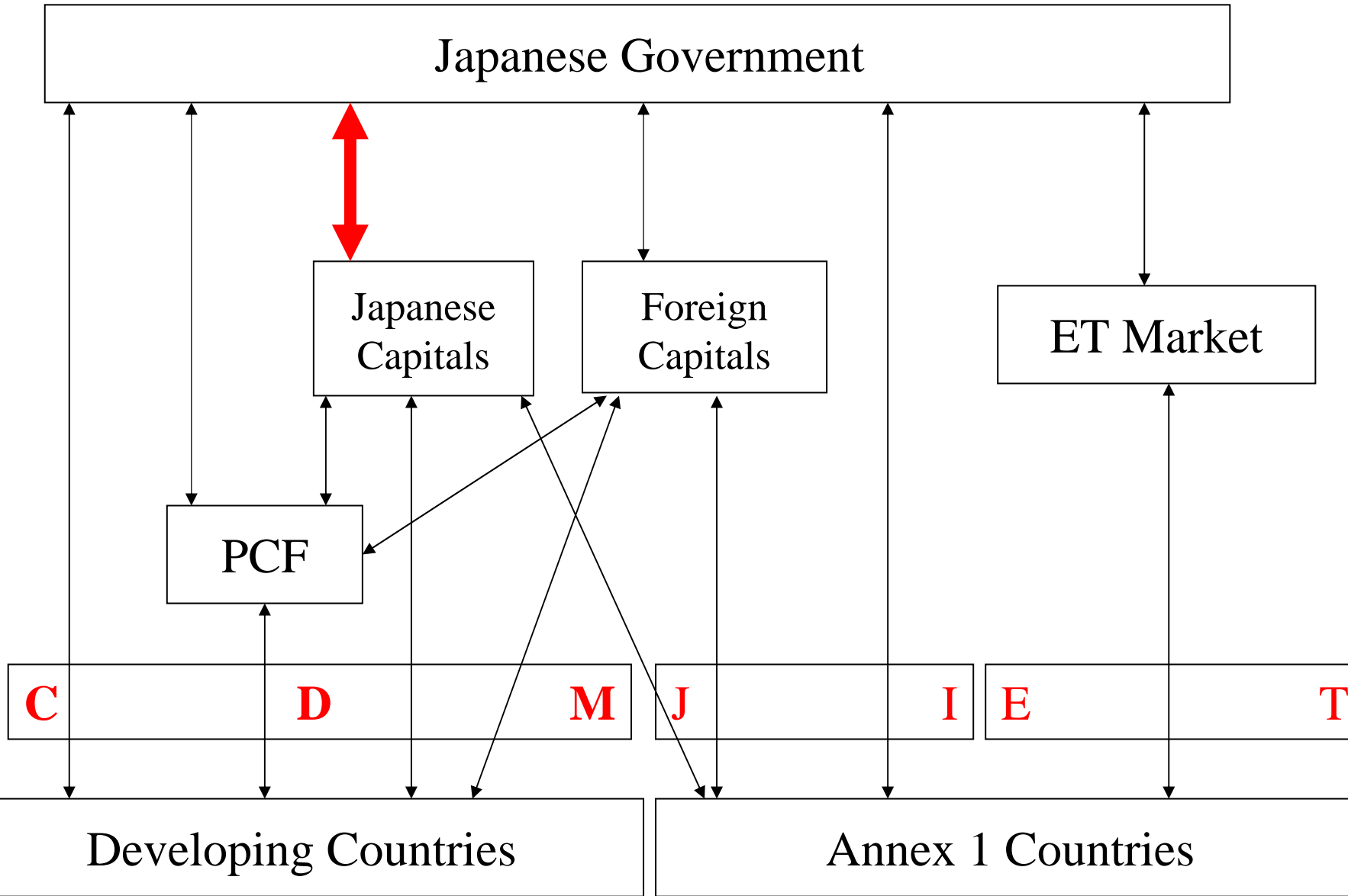
The amount of investments in PCF is limited to 180 million dollar.

Option3.

Increasing subsidy for CDM/JI projects

Merits and demerits

Possible ways to get Carbon Credits



Merits of option3

- The budget for this system is not going to be flowed out of Japan.
It will be used for domestic firms
- Promoting CDM/JI projects by Japanese firms and the amount of total credits in Japan will increase.

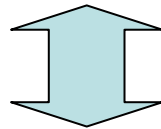
Demerits of option3

- This system is not cost-effective way to get KM credits.

Option 4.

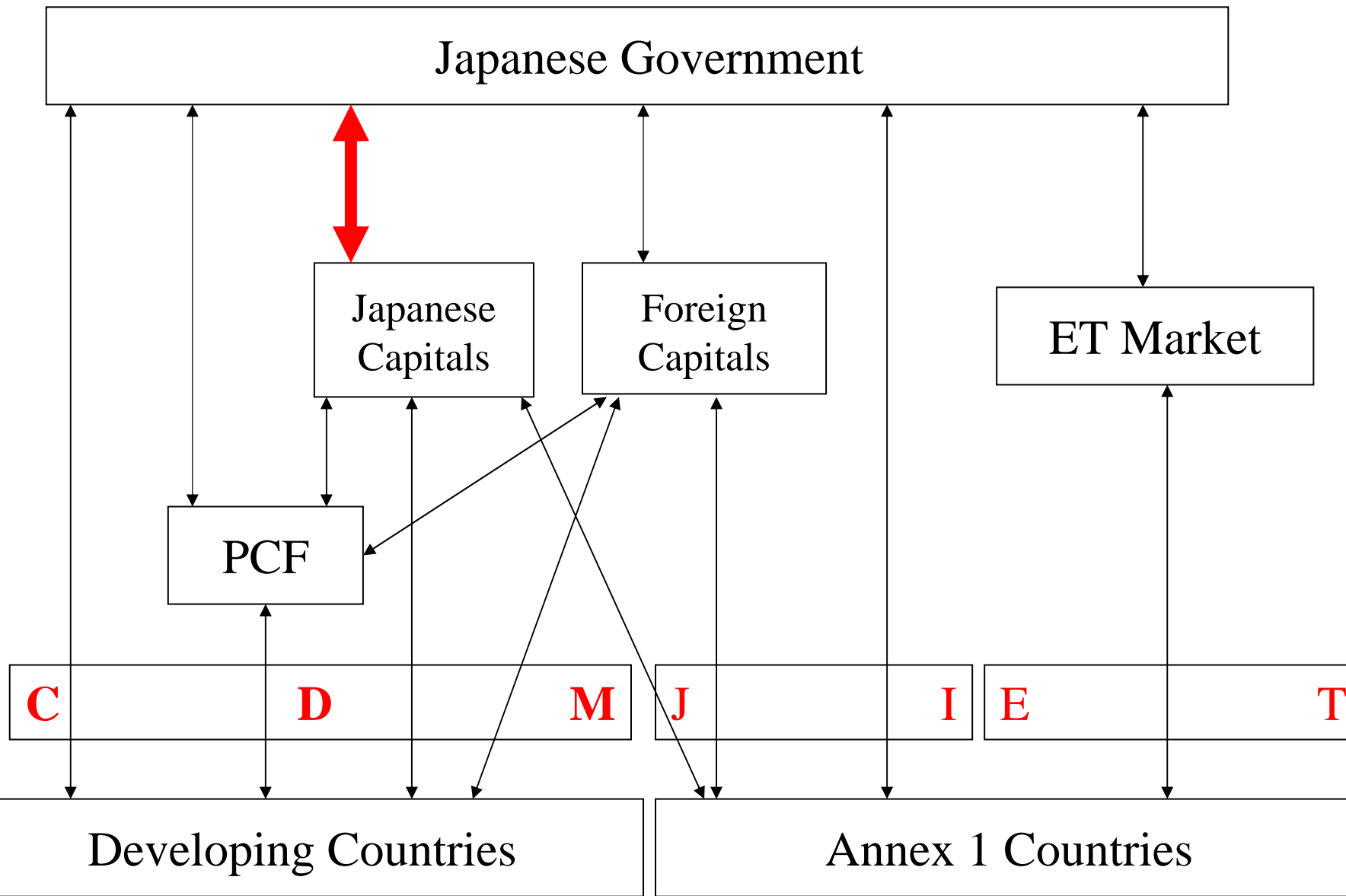
Requesting Japanese companies to contribute their KM credits to the Japanese government account.

- ***Firms contribute KM credits to Japanese government account .***



- The government will abate a **corporation tax** of a firm that contribute their credit.

Possible ways to get Carbon Credits



Option4.

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

What is this system?

Merits and demerits

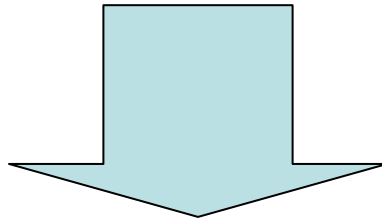
Merits of option4

- There is no cost to establish the new system.
- There is no outflow of the Japanese government's money from Japan to foreign countries

Demerits of option4

- It is uncertain whether the government can get credits.

Firms do not have much incentive to contribute their credits to the government.



It is impossible to have numerical target of the credits that the government will get.

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

- . Whether the policy has **certainty of acquiring credits**
- . Whether the policy is **cost-effectively**.
- . Whether the policy has risk of **an outflow of the Japanese government's money** from Japan to foreign countries

	option1	option2	option3	option4
certainty of acquiring credits				×
cost			×	
outflow 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

Our proposal for the Japanese government

What concrete measures are needed for the Japanese government to crystallize this strategy?

1. The policies to get Kyoto Mechanism credits cost-effectively.

2. The policies to increase the amount of KM credits that the Japanese government can get.

2. The policies to increase the amount of KM credits that the Japanese government can get.

Making use of JCF (Japan Carbon fund)

merits

- Increase the total amount of credits
- It is cost effective way for firms to get credits
- Promoting technology transfer to developing countries

demerits

- **The parties that will get credits is not the government but firms.**



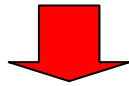
This is not the policy for the government to get credit

2. The policies to increase the amount of KM credits that the Japanese government can get.

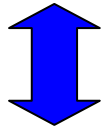
Promoting Capacity Building (included MoU, F/S

Infrastructural development for CDM/JI in developing countries
case study of model project...

Japanese government budget **590 million** yen for it.



In order to **promote** capacity building, **ODA money** should be used for capacity building



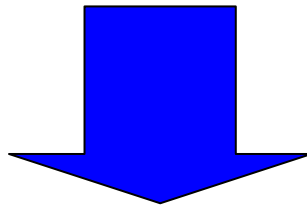
about 9.8 billion dollars (about 100 billion yen!) in
fiscal year 2003

2. The policies to increase the amount of KM credits that the Japanese government can get.

Japan should propose that CDM EB increase the number of members to evaluate methodologies **quicker than now.**

1. CDM EB's evaluations are very **strict.**

2. It takes almost **4 months** to evaluate methodologies.



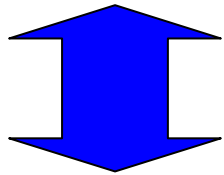
Serious risks for firms!

1. CDM EB's evaluations are very **strict**.

strict evaluations are needed to keep credibility of CDM projects

2. It takes almost **4 months** to evaluate methodologies.

It should be improved by increasing the number of experts who evaluate methodologies!



The panel Develop recommendation to EB.

but, this panel consists of **only 12** members

Conclusion

Japan should have the strategy to get credits.

Diversifying carbon credits suppliers.
buying carbon credit at low cost in an early stage.
to get credits cost effectively!!

and Introducing following policies

- 1. The policies to get Kyoto Mechanism credits cost effectively.***
- 2. The policies to increase the amount of KM credits that the Japanese government can get.***