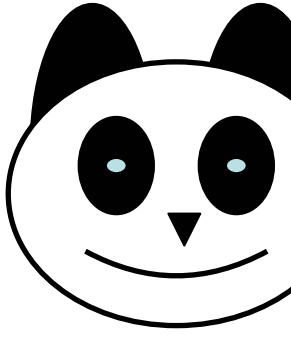
The Japanese government should have the strategy to get Kyoto Mechanism credit

Kyoto Mechanism group

Aki Inamasu Keisuke Shiinoki Kenji Ooshima
Shigetaka Udagawa Youichi Maeda



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

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

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

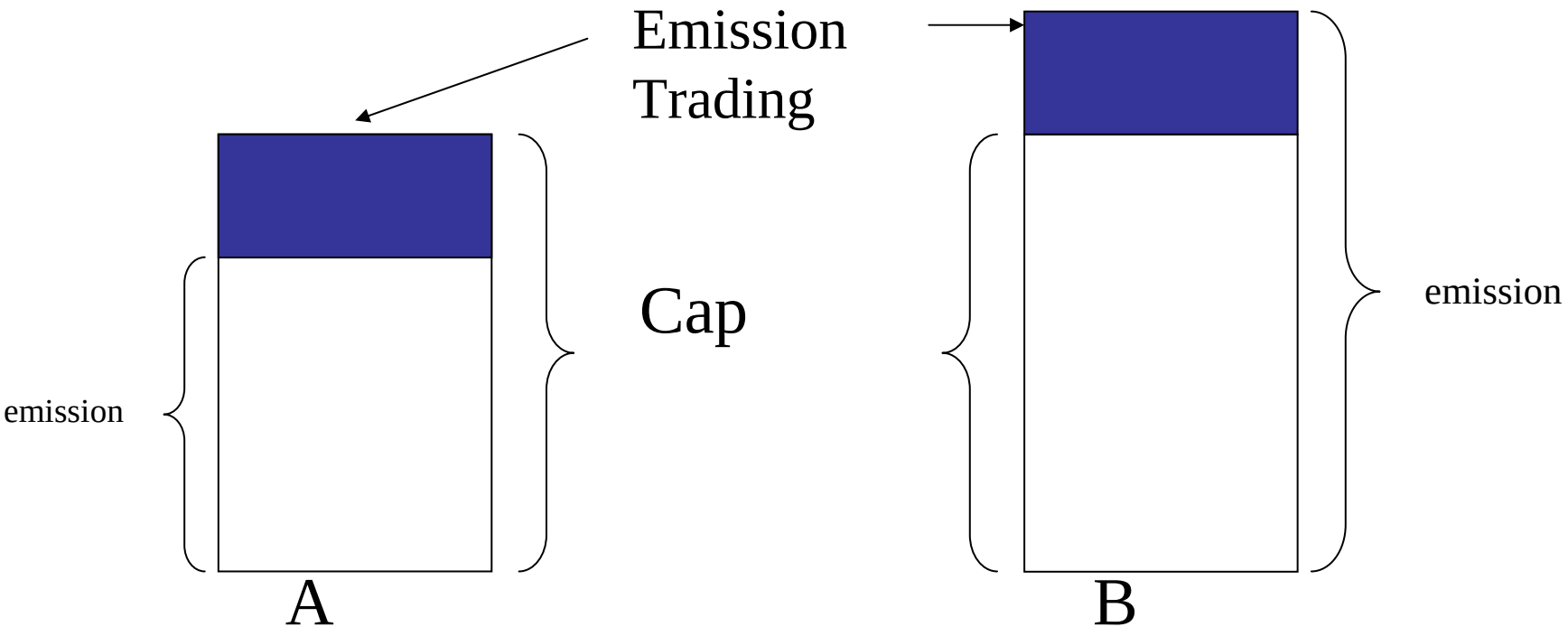
- **International Emission Trading (IET)**
- **Joint Implementation (JI)**
- **Clean Development Mechanism (CDM)**

International Emission Trading

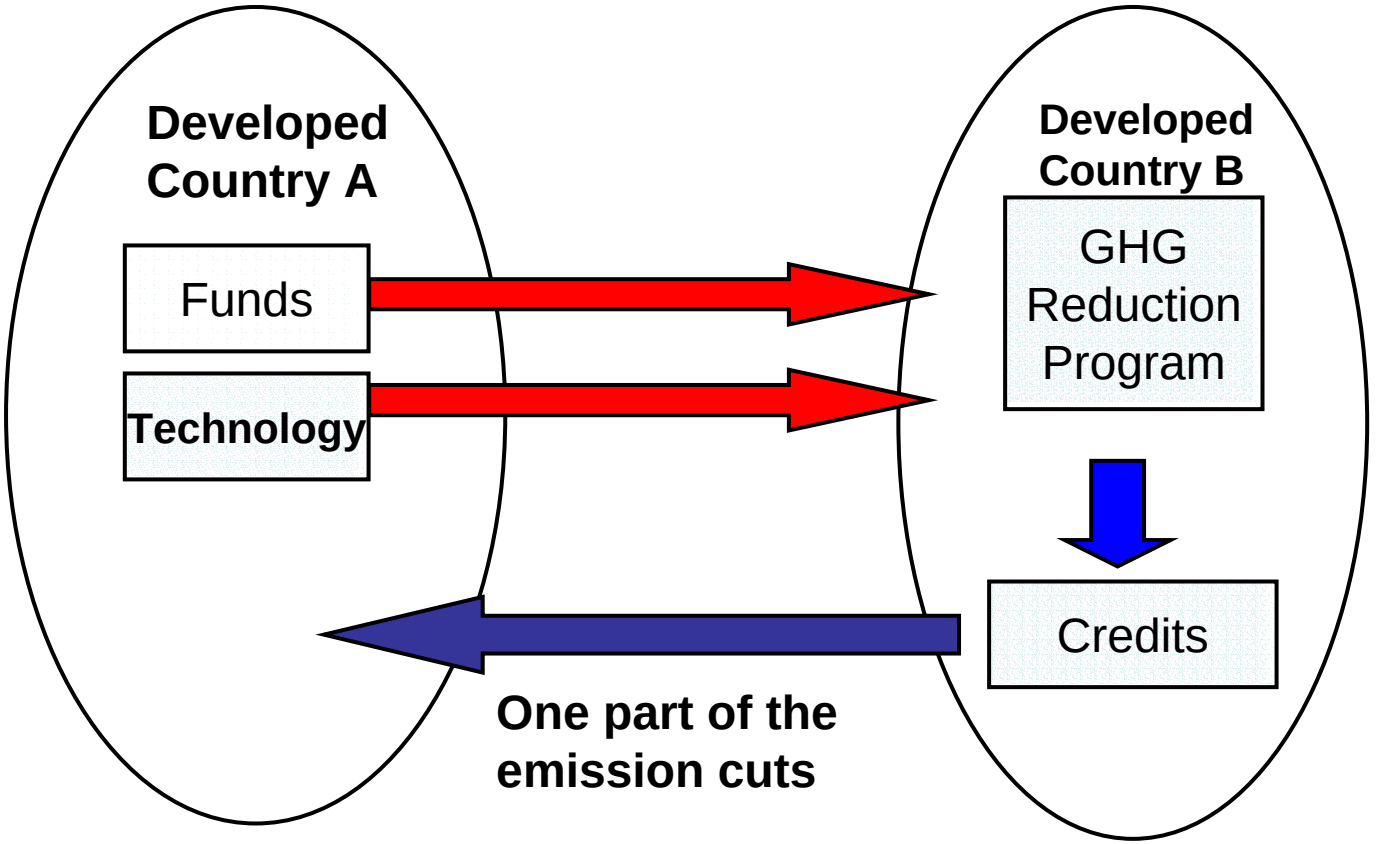
For example

	Japan	Russia
Marginal abatement cost	**400$**	**5$**

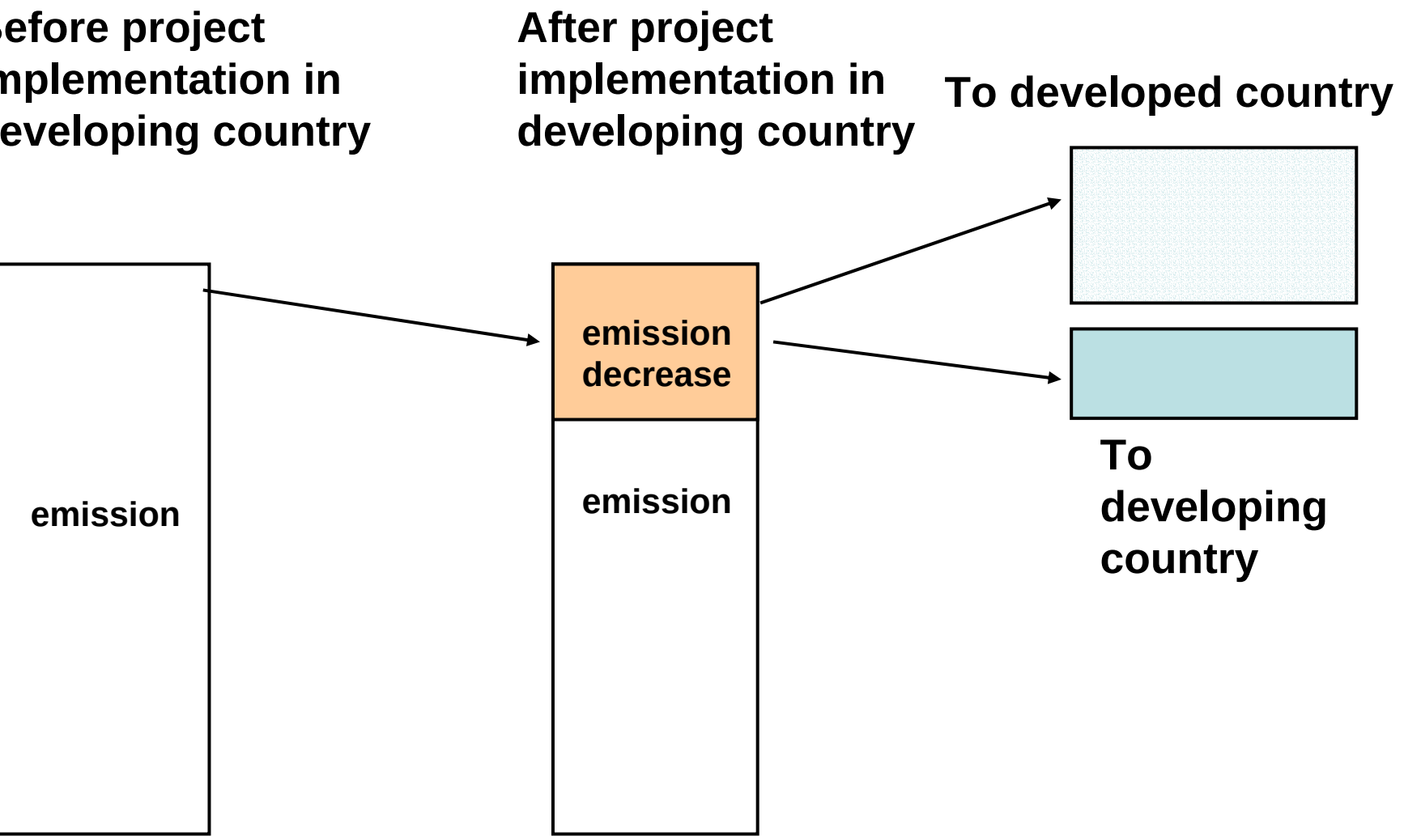
International Emission Trading



Joint Implementation



Clean Development Mechanism

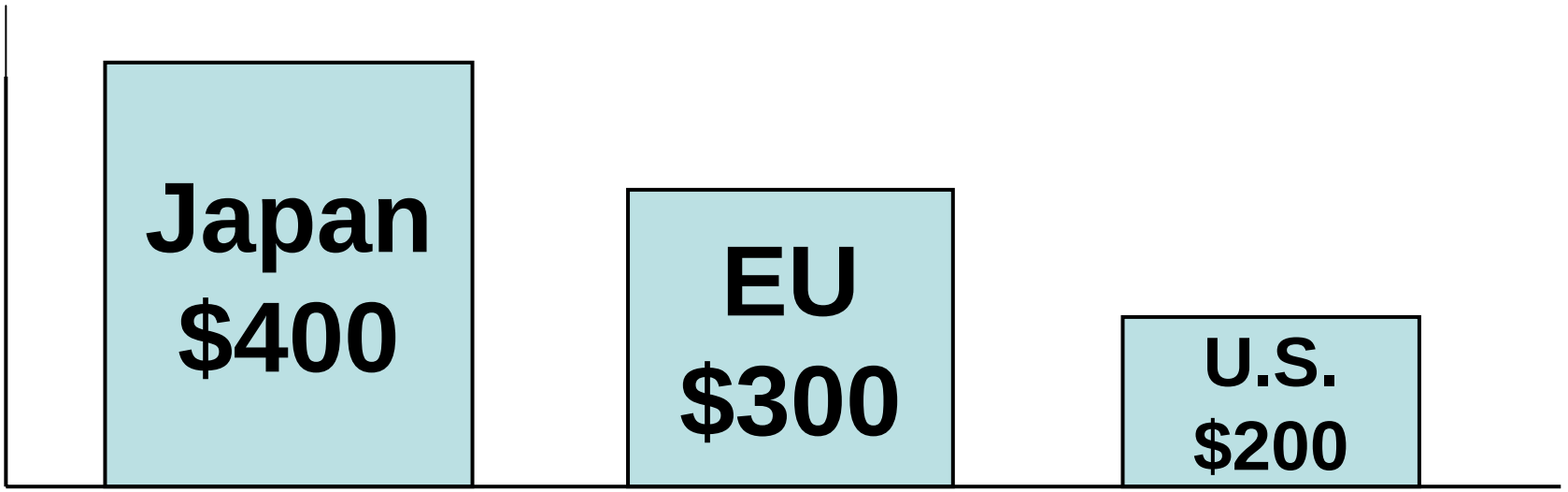


Why getting Kyoto mechanism credits is important for Japan to achieve the target cost effectively?

◎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

	The range of Predicted Price of KM credits
KM credit	**2-20**

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

1.The Japanese government’s strategy and Measures

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%

The Japanese government still need to compensate for −1.6% tal 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 CO2

The proportion of using KM

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

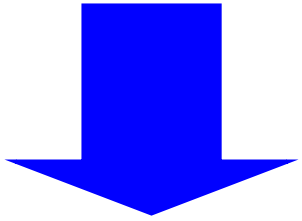
..23billion×0.016×5（Year）＝98million tons

The Japanese government needs to get

98millions ton CO2 of credits

The Japanese Government's current Strategy

"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.

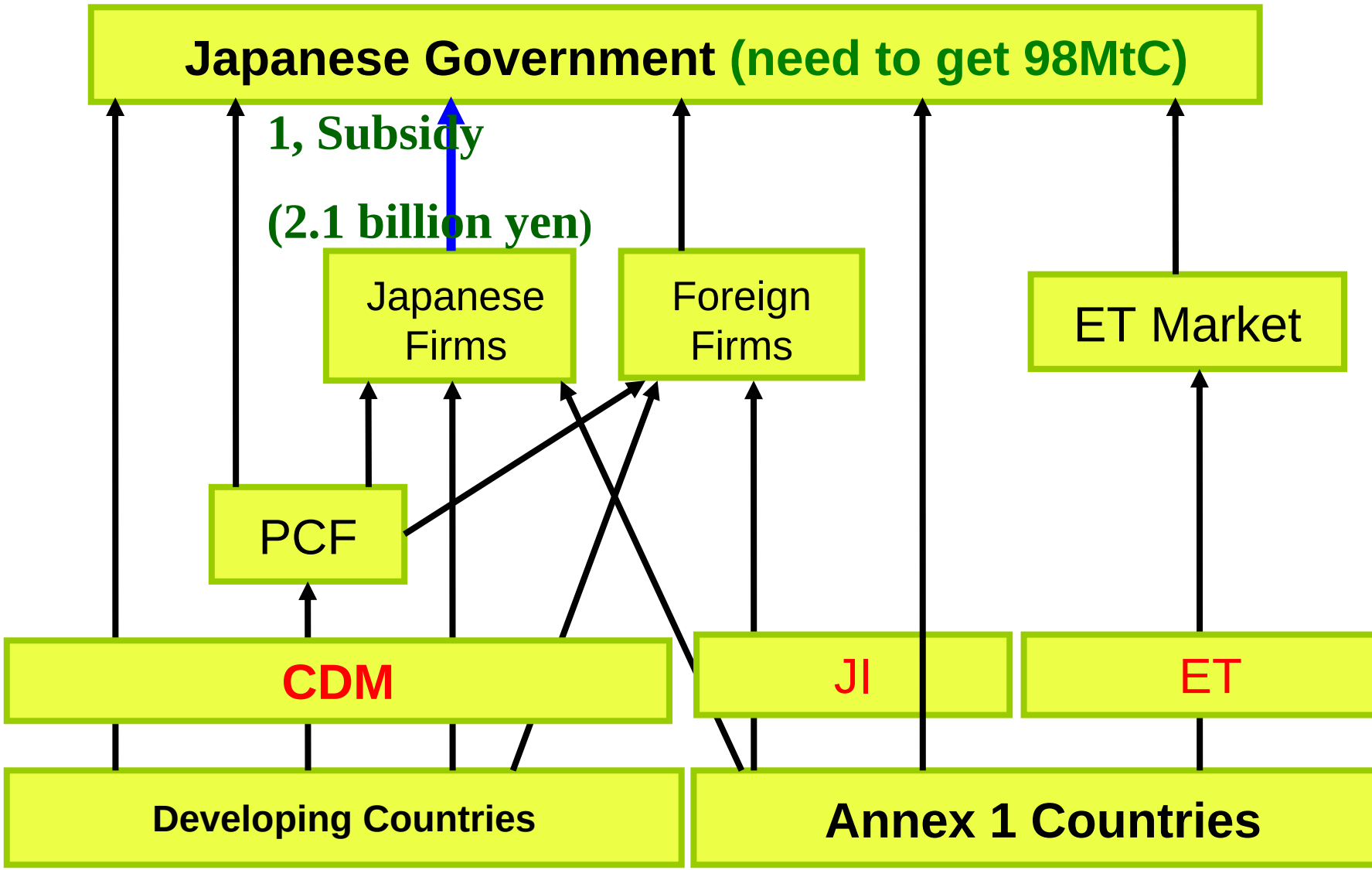
The government's only existing policy to get KM credits

☆Subsidy system

(2.1billion yen　1990million US dollars)

①The main purpose is promoting CDM/JI projects.
②Not 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 credits

f there will be no additional policies to get KM 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 ge credits is a subsidy system

→Will not be a main policy

f there will be no additional policies

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

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

Evaluation on the current policies to get KM credits

In terms of

①Certainty
②Cost-effectiveness

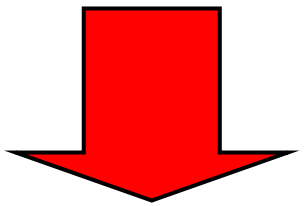
of getting KM credits

①certainty 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”

①certainty of getting necessary amount of credits

Projected Russian emissions (MtC)

case (Economic Growth rate from 2000 to 2010)	The amount "Hot-Air" per year (during the 1st commitment period)
Low growth(2%)	199 (995)
High growth(5,4%)	-2 (-10) No hot air

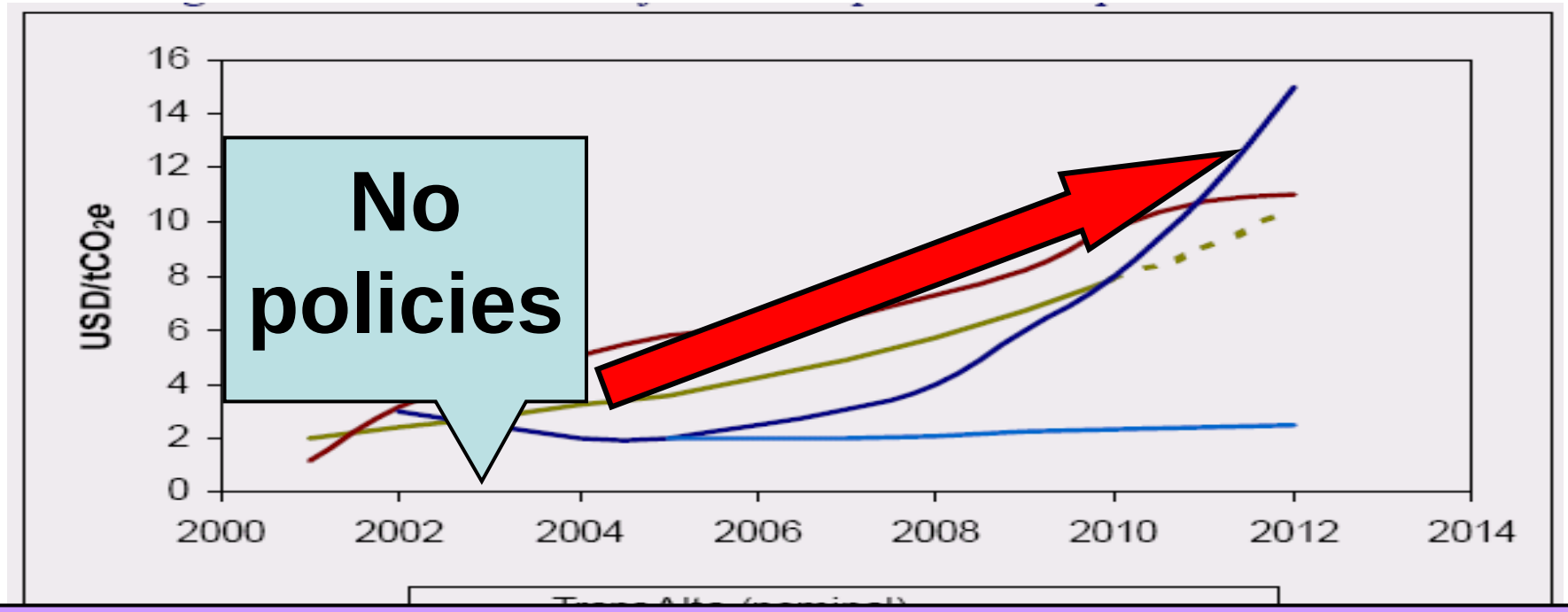
Source: Department of economics University of Colora

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

②Cost effectiveness of getting KM credits.

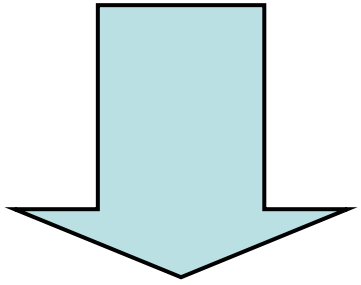
Predicted carbon prices in the period 2001-2012



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 to,,,

The strategy which the Japanese Government should take

Getting KM credits certainly and cost-effectively

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

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)

to

“Getting KM 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)

Option1. Purchasing carbon credits thorough tenders

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

ERUPT/CERUPT ...

- ☆The government gets carbon credits on tender base.

(ERUPT for JI projects and CERUPT for CDM projects

- ☆Fixing prices of credits in advance.
- ☆Delivering credits later.
- ☆Firms can receive some parts of payments in advance

CDM projects

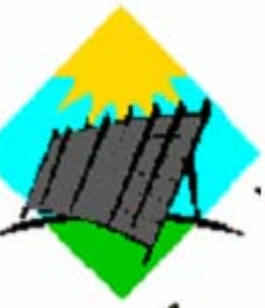
the price tendered of firm A

20 EUR/t-CO2

the price tendered of firm B

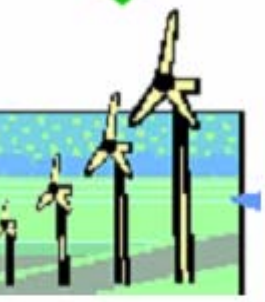
10 EUR/t-CO2

The government purchases credits for 5EUR/t-CO2



the price tendered of firm C

30 EUR/t-CO2



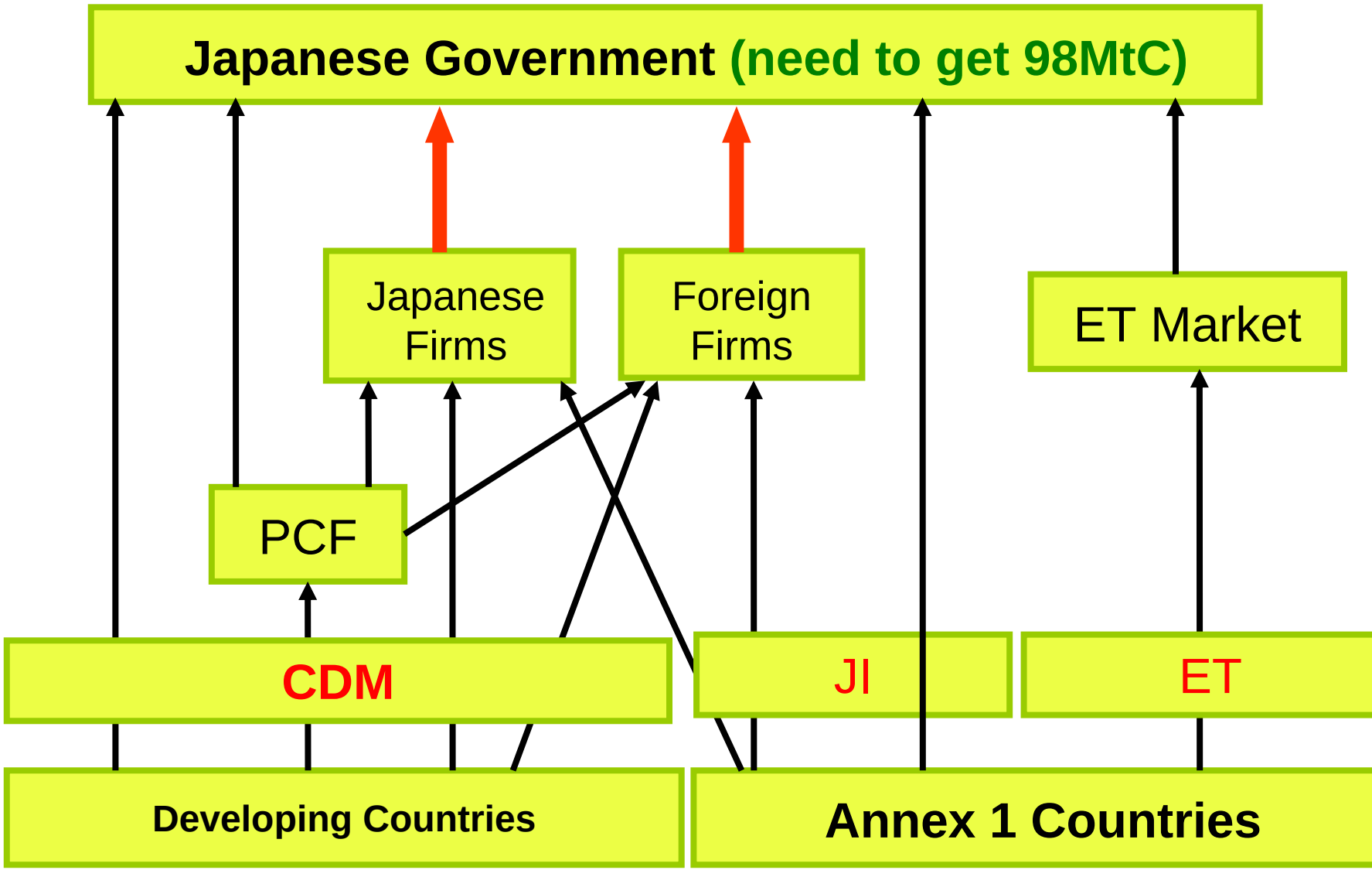
the price tendered of firm D

5 EUR/t-CO2

the government

Transfer credits

Possible ways to get Carbon Credits



Option2.
Investing in PCF (prototype carbon fund)

Option2. Investment in PCF

PCF …

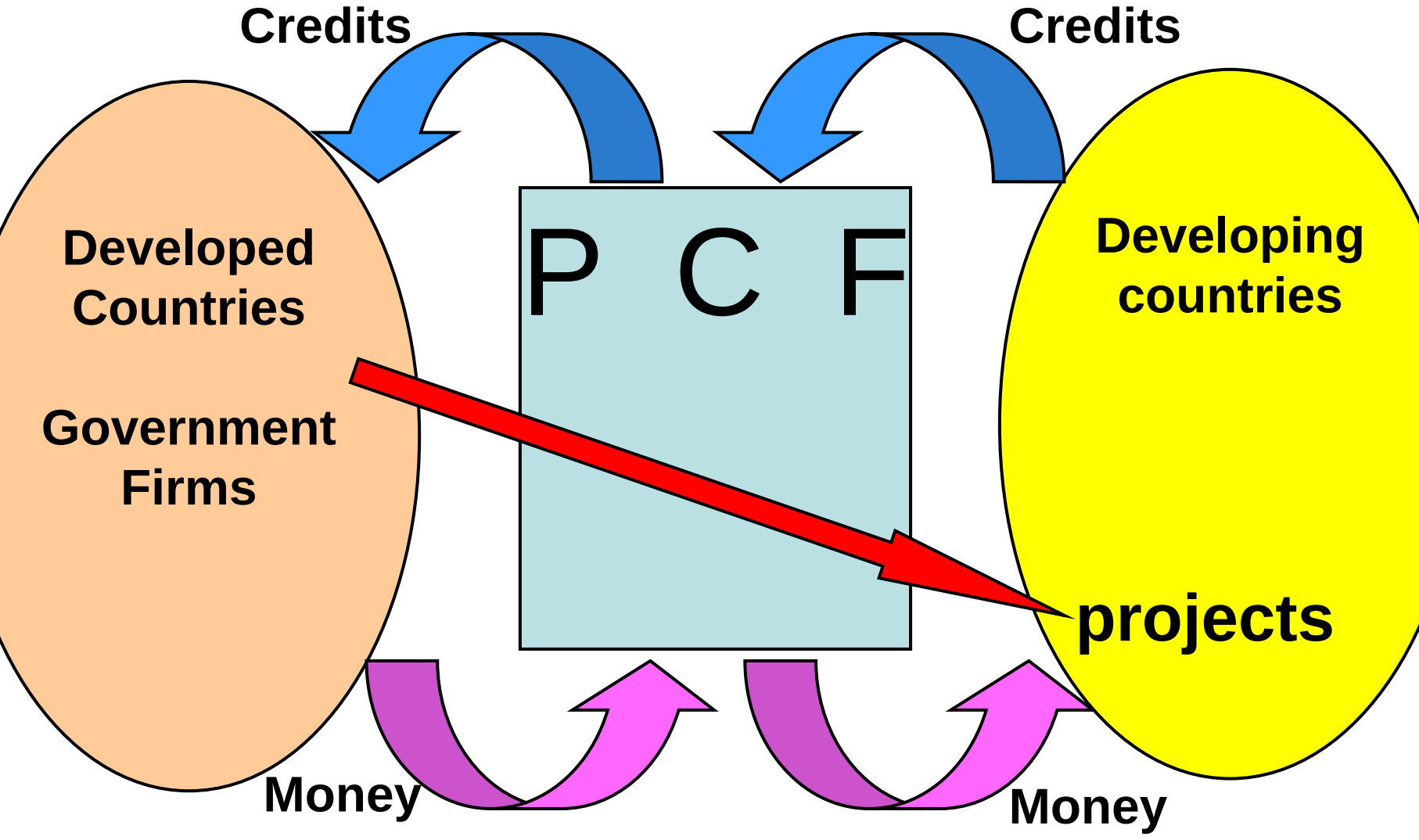
☆ *Stands for Prototype Carbon Fund*

☆ Is managed by WB. (world bank)

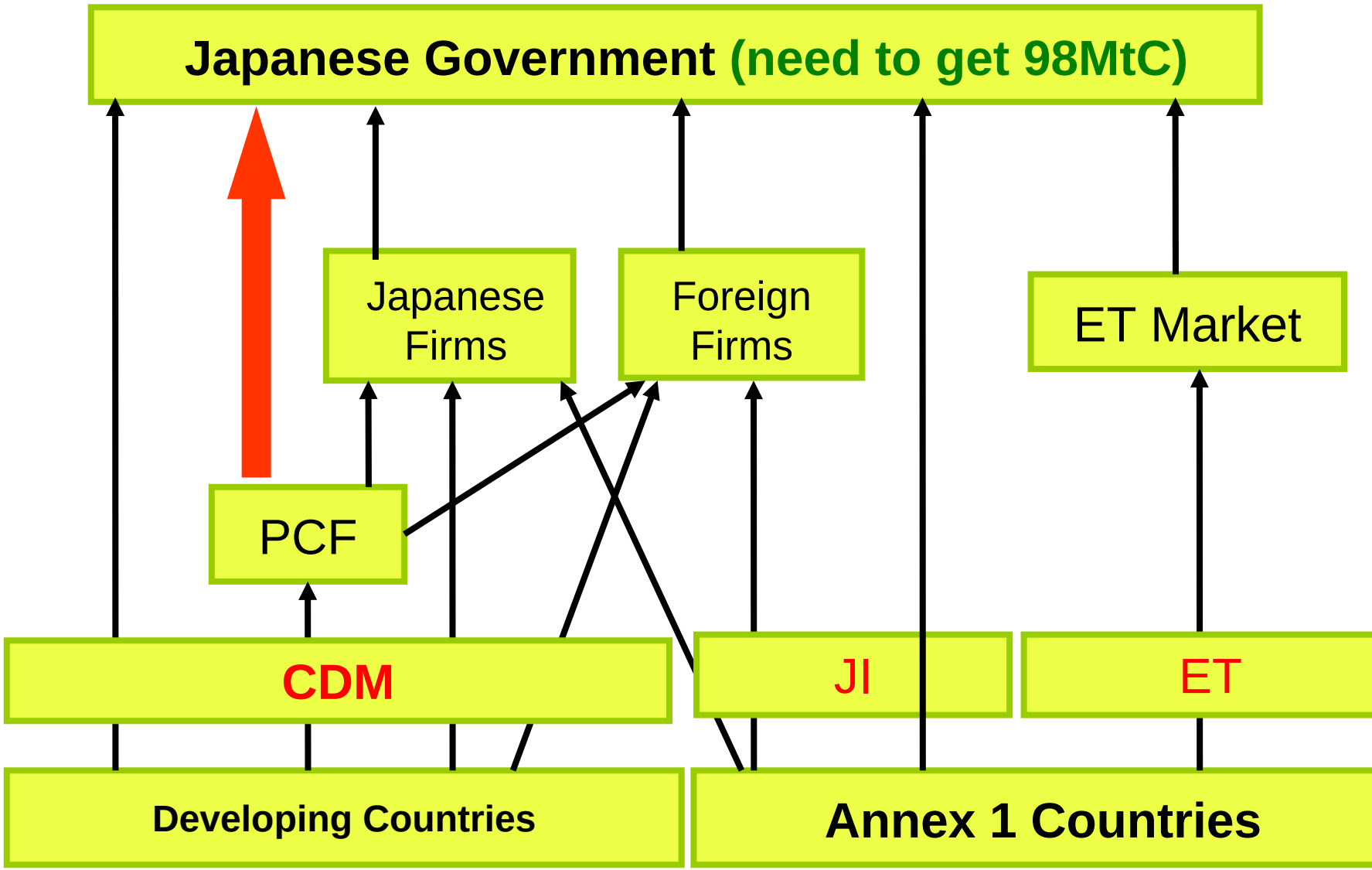
☆ WB has many experts of CDM project.

☆WB has full of experience and knowledge.

system of PCF



Possible ways to get Carbon Credits



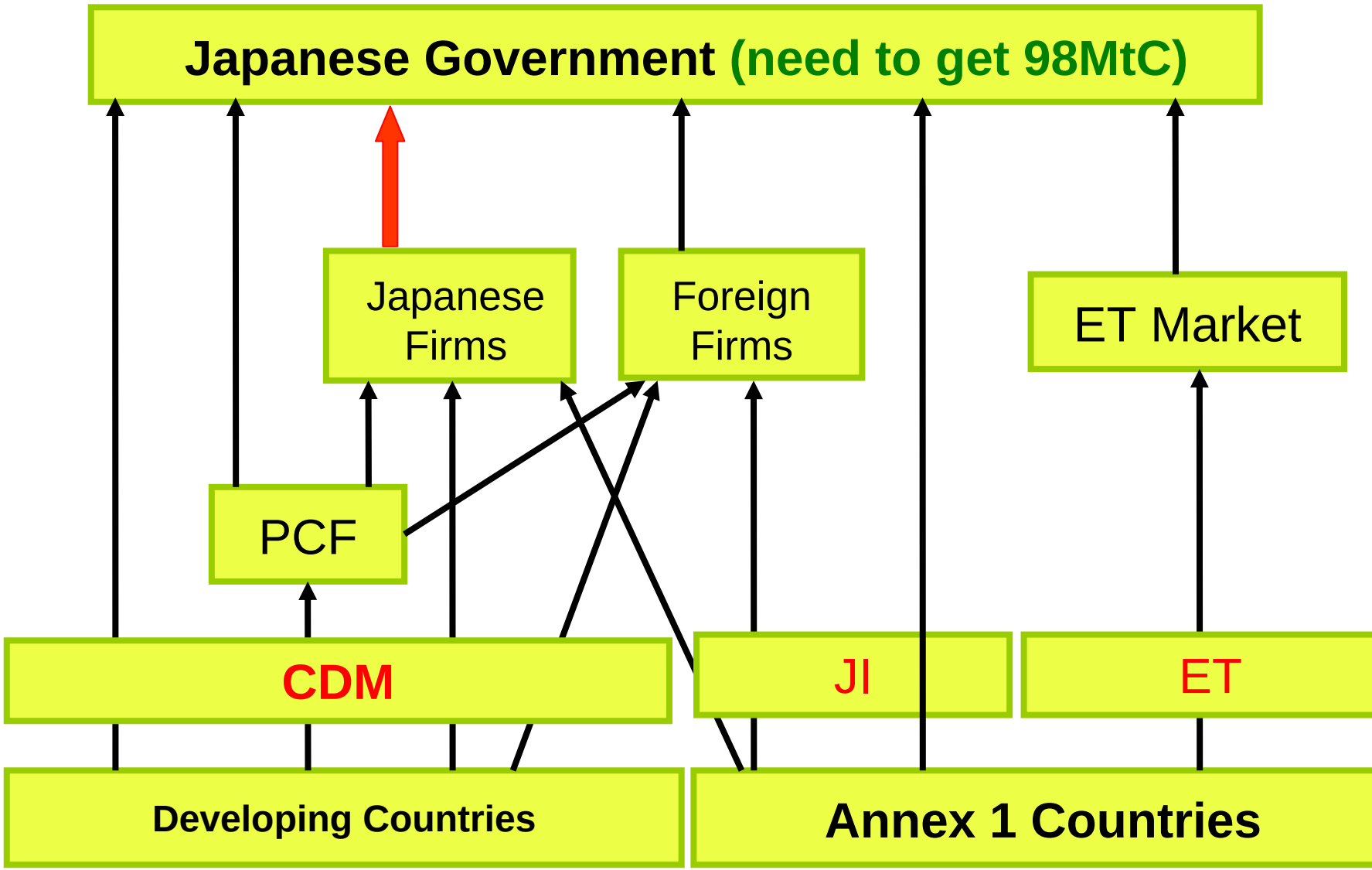
Option 3

Increasing subsidy for CDM/JI projects

Option3. Increasing subsidy for CDM/JI projects

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.

Possible ways to get Carbon Credits

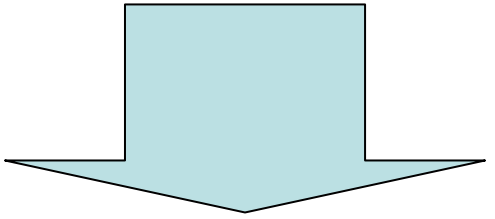


Option 4

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

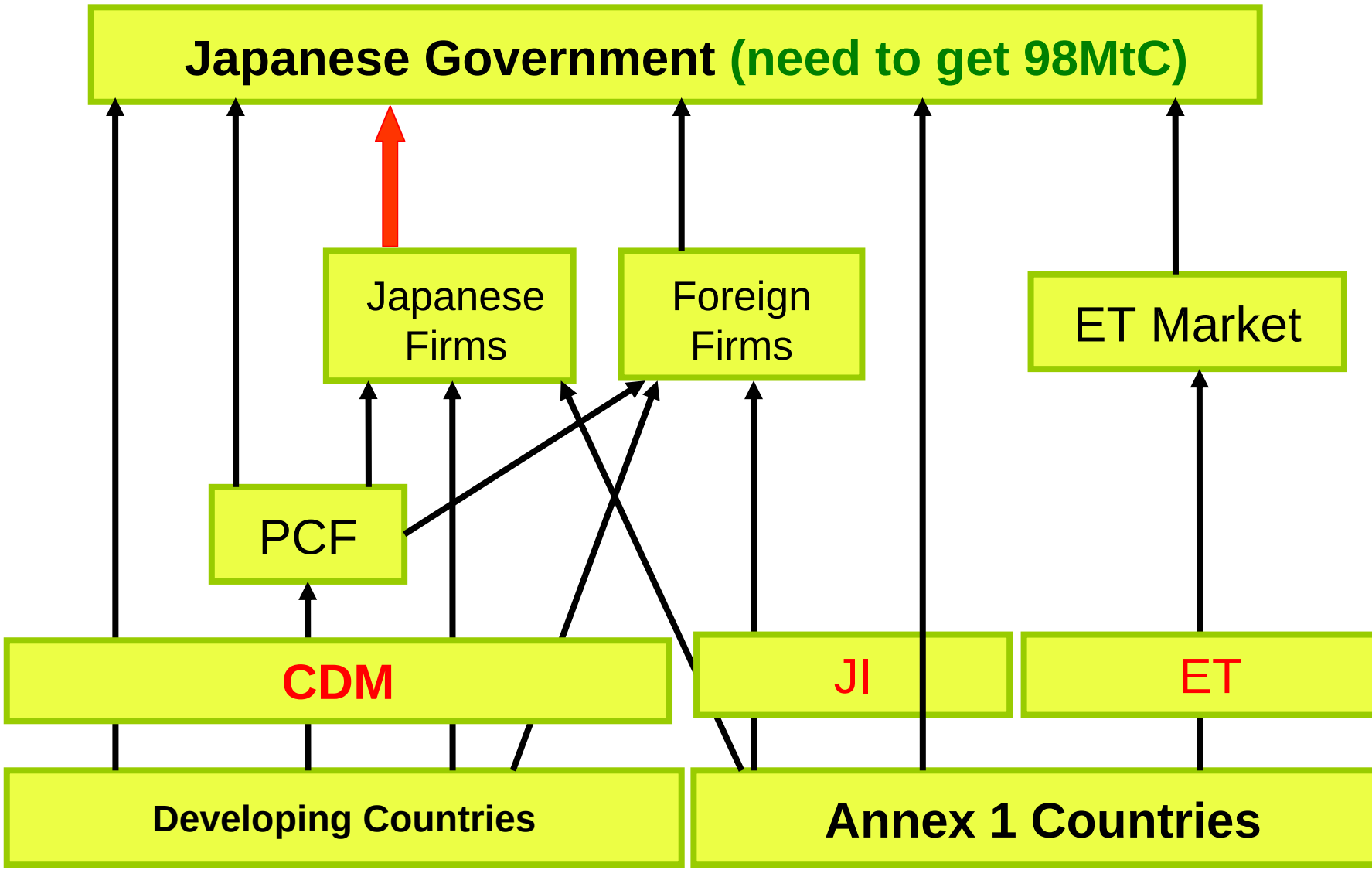
Option4. Requesting Japanese companies to contribute (transfer) their KM credits to the Japanese government account.

Firms contribute their KM credits to the Japanese government account.



The government will reduce a corporation tax of a firm that contributed their credits.

Possible ways to get Carbon Credits



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

Ⅰ. certainty of acquiring necessary amount of credits

Ⅱ. cost-effectiveness

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

Ⅰ. 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

Ⅱ. 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

III. 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
I certainty of acquiring credits	◎	◎	○	×
II cost-effectiveness	◎	◎	△	△
III transfer of the government's money	×	×	◎	◎

★ *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

to

Getting KM credits certainly and cost effectively as soon as possible

And introduced these policies immediately!

1. **Introducing ERUPT/CERUPT system**
2. **Investing in PCF**

清　一定　到
日本　来
玩！！