Recent Climate Policy in Japan

Toshihiko Masui & Mikiko Kainuma
National Institute for Environmental Studies

Post Copenhagen: Policy Analyses for A Mosaic World
Workshop on Climate Change Impacts and Integrated Assessment
Snowmass, Colorado
August 2 2010

AIM
ASIA-PACIFIC INTEGRATED MODEL

Mid-term Target

Annex I Parties	Emission reduction in 2020	Base year
Australia	-5%～-15%/-25%	2000
Belarus	-5-10%	1990
Canada	-17%	2005
Croatia	-5%	1990
EU	-20%/-30%	1990
Iceland	-30%	1990
Japan	-25%	1990
Kazakhstan	-15%	1992
Liechtenstein	-20%/-30%	1990
Monaco	-30%	1990
New Zealand	-10-20%	1990
Norway	-30-40%	1990
Russian Federation	-15-25%	1990
USA	-17%	2005

* Many countries add notes.

http://unfccc.int/home/items/5264.php

BOTSCHAFT VON JAPAN

HIROSHIMASTR. 6
10785 BERLIN / GERMANY

JB 15/2010

Note Verbale

The Embassy of Japan in Germany presents its compliments to the secretariat of the United Nations Framework Convention on Climate Change and has the honour to inform the latter of the willingness of the Government of Japan to be associated with the Copenhagen Accord of 18 December 2009.

The Embassy of Japan has further the honour to submit to the secretariat information on its quantified economy-wide emissions target for 2020 in the format given in Appendix I of the Accord as below.

Annex I Parties	Quantified economy-wide emissions targets for 2020	
	Emissions reduction in 2020	Base year
Japan	25% reduction, which is premised on the establishment of a fair and effective international framework in which all major economies participate and on agreement by those economies on ambitious targets	1990

The Embassy of Japan in Germany avails itself of this opportunity to renew to the secretariat of the United Nations Framework Convention on Climate Change the assurances of its highest consideration.

Berlin, January 26, 2010

To the
Secretariat of the United Nations Framework Convention on Climate Change
Bonn

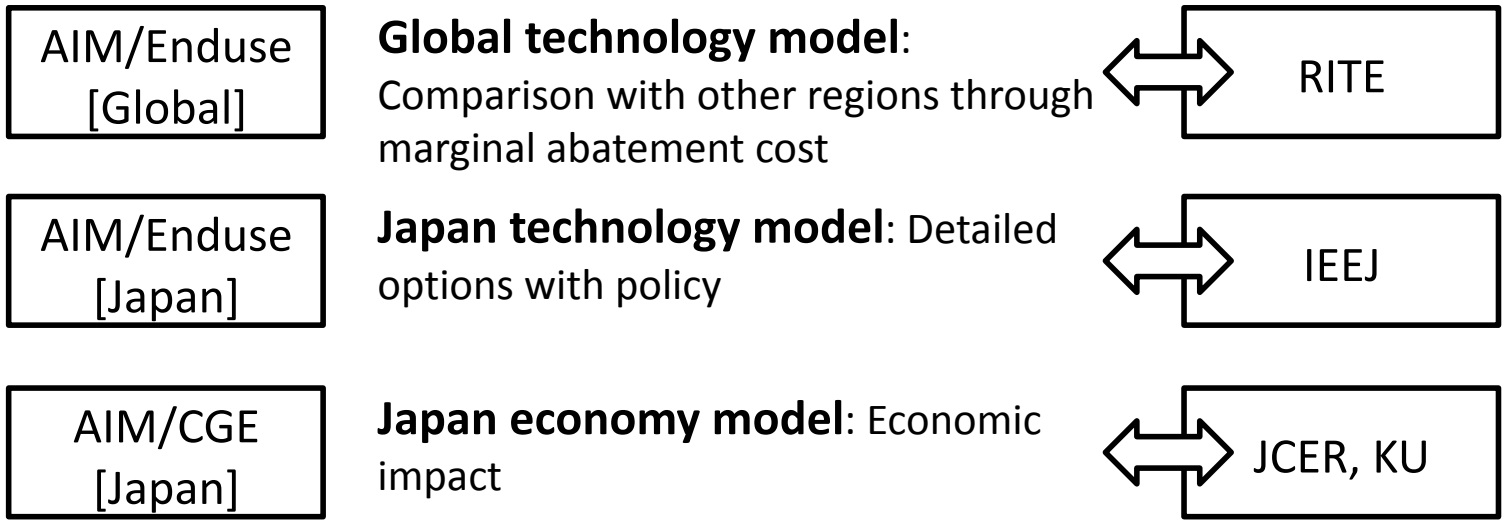
http://unfccc.int/files/meetings/application/pdf/japancphaccord_app1.pdf

Process of Japan's mid-term target on GHG reduction (1)

October 2008: Cabinet office led to mid-term target in Japan to get cooperate from following modeling teams.

Purpose: provision of options of Japan's mid-term target on GHG reduction

* Responding to criticism against the closed process at COP3 (Kyoto Protocol), open and academic process was introduced.

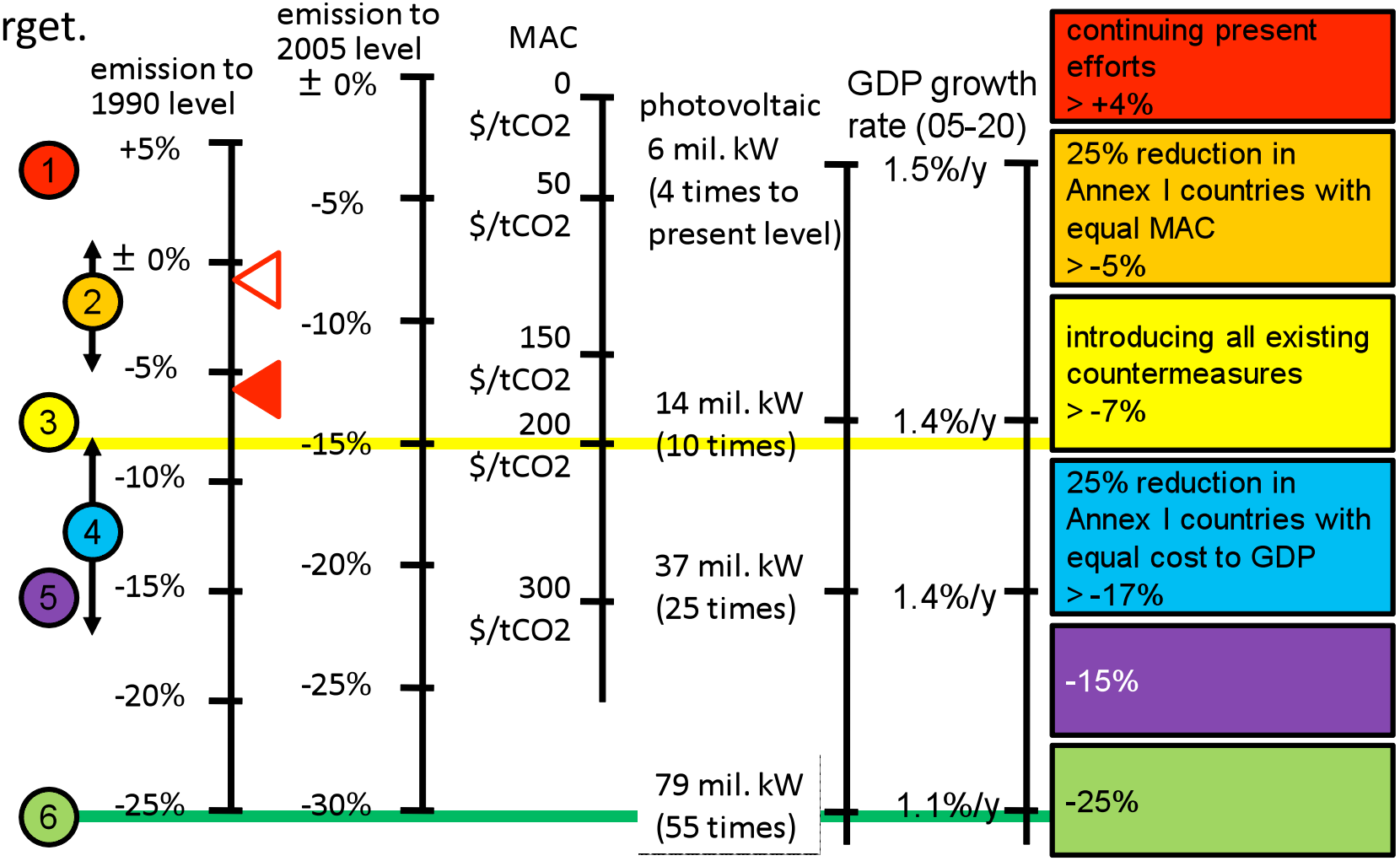


AIM ASIA-PACIFIC INTEGRATED MODEL

Process of Japan's mid-term target on GHG reduction (2)

14 April 2009: 6 options were finalized.

10 June 2009: Former prime minister, Mr. Aso, announced 15% reduction from 2005 level (=8% reduction from 1990 level) as domestic reduction target.



AIM ASIA-PACIFIC INTEGRATED MODEL

Process of Japan's mid-term target on GHG reduction (3)

22 September 2009: Former prime minister, Mr. Hatoyama, announced 25% reduction (including international carbon credit and forest sink) from 1990 level.

October 2009: Task force to achieve 25% reduction was organized.

Few progress toward 25% reduction target.

COP 15 at Copenhagen

December 2009: The Ministry of the Environment organized "Overall Review Panel on Mid- and Long-Term Roadmap Survey"

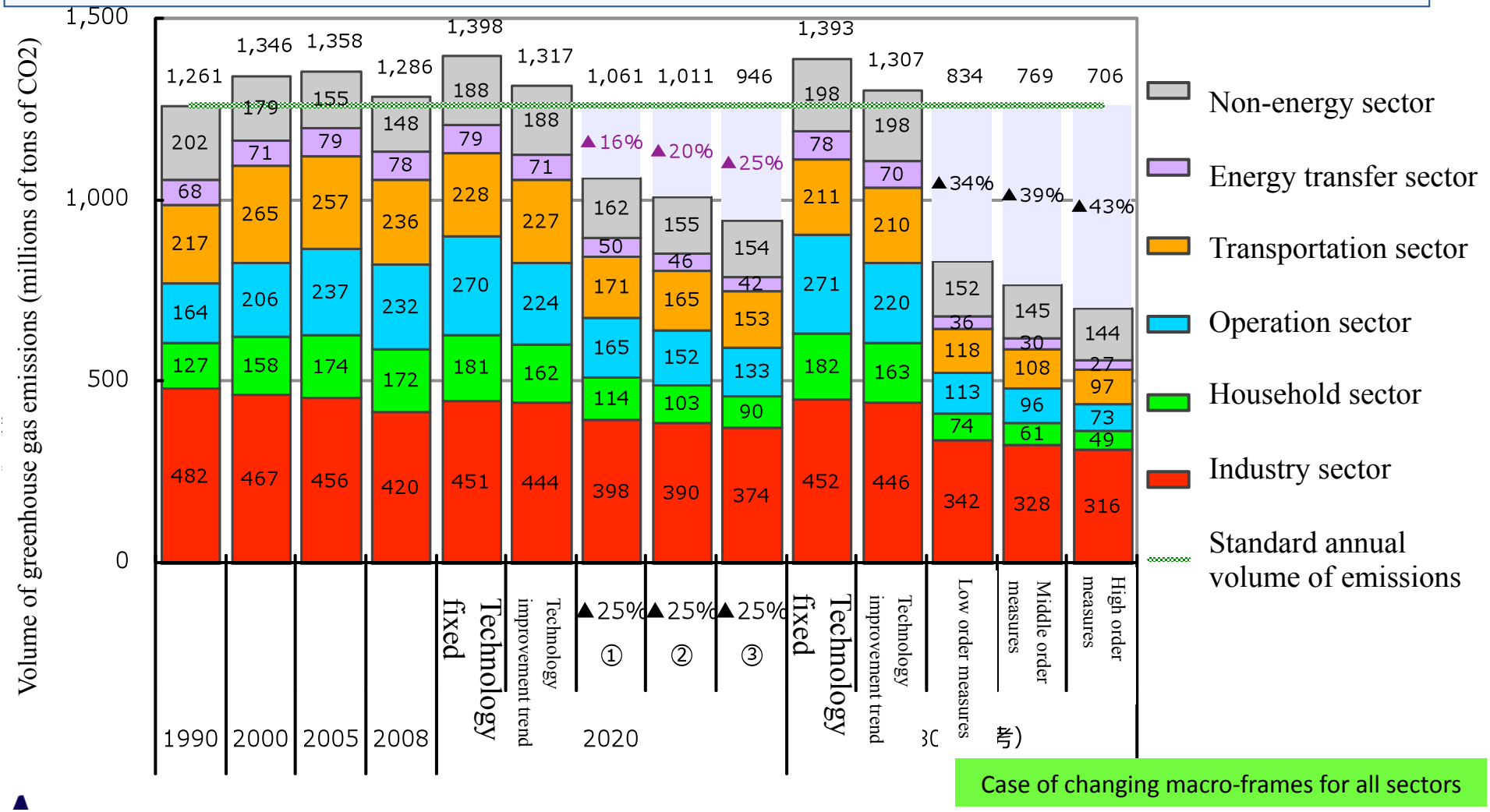
31 March 2010: Tentative draft on Mid- and Long-term Roadmap was proposed by the Minister of the Environment.

April 2010: Discussion on Mid- and Long-term Roadmap has been started at Central Environment Council.

AIM
ASIA-PACIFIC INTEGRATED MODEL

Volume of greenhouse gas emissions in 2020/2030

- It is technically possible to domestically reduce the volume of greenhouse gas emissions by 25% in 2020 compared to the level in 1990.
- Efforts in daily life (household, operations, transportation) will have a major effect.

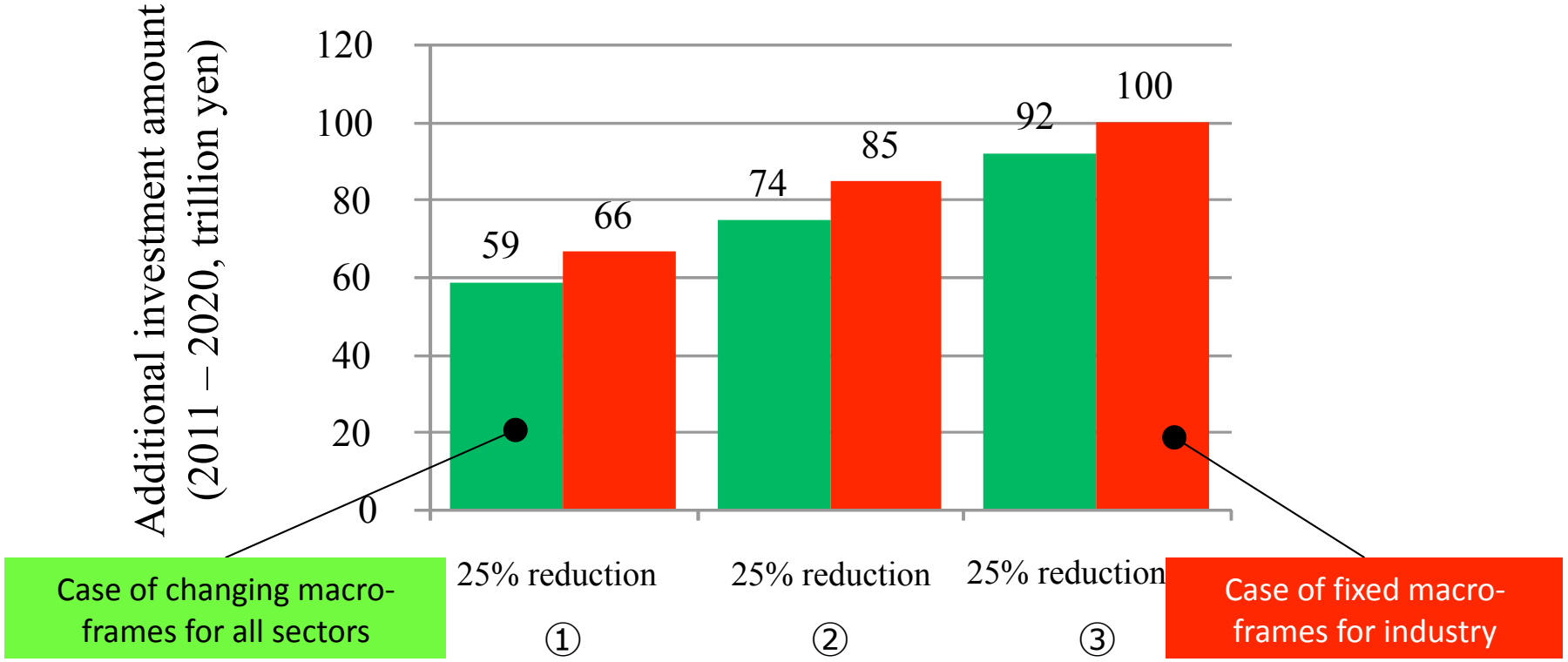


Case of changing macro-frames for all sectors

Note: 2020 25% (1): case including around 10% of international contribution and sinks; 25% (2): case including around 5% of international contribution and sinks; 25% (3): case including no international contribution and sinks. 2030 lower order to high order measures: the emissions volume for 2030 is done assuming that the measures that have been carried out in order to reduce emissions toward the 25% reduction in 2020 will continue to be carried out in 2012 through 2030.

Changes in investment amounts when changing the macro-frames

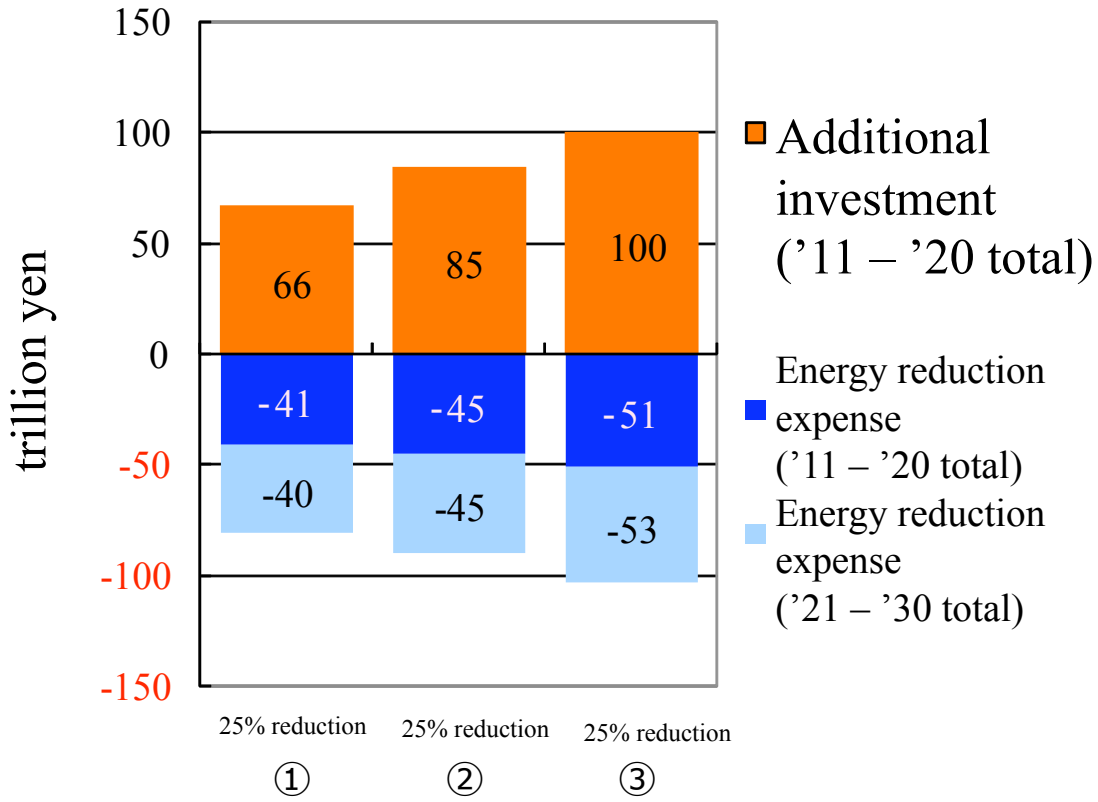
- The total investment amount in order to realize a 25% is approximately 60 to 100 trillion yen in the period from 2011 through 2020.
- By changing the macro-frame, the addition investment amount is lowered by about 10 trillion yen.



Infrastructure development expenses and so forth an not included in this investment. These expenses must be paid separately so that more ordinary infrastructure investments can be turned into investments toward a low-carbon society (using revenue from carbon tax, etc.)

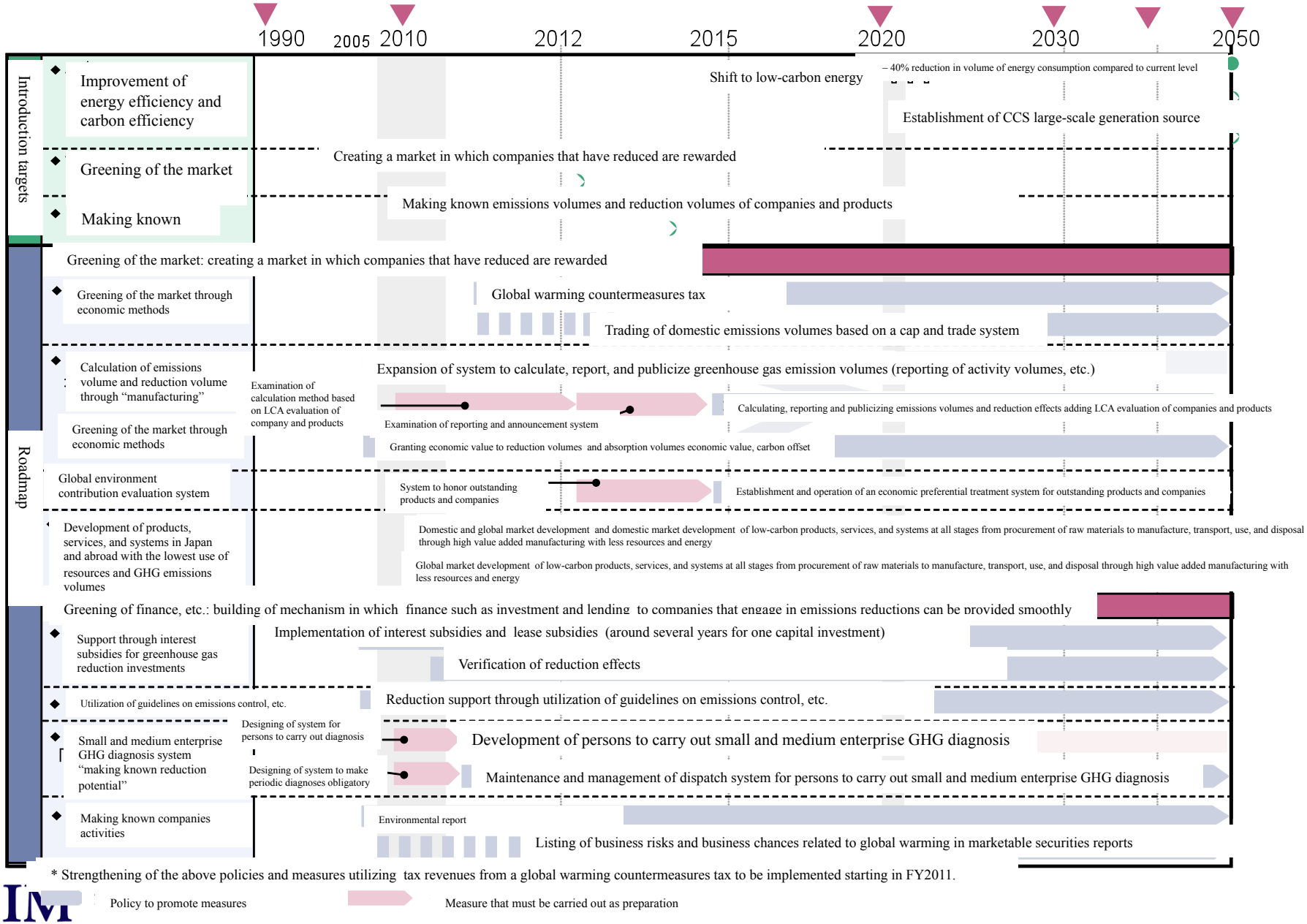
Relationship between low-carbon investment amount and energy reduction expense

- As for the investment amount for global warming, half of the overall investment amount will be collected by 2020 and an amount equal to the investment amount will be collected by 2030 based on energy expenses that can be saved through technologies introduced.



AIM ASIA-PACIFIC INTEGRATED MODEL

Example of Roadmap; manufacturing sector



AIM ASIA-PACIFIC INTEGRATED MODEL

Process of Japan's mid-term target on GHG reduction (4)

March 2010: "The Basic Act for Global Warming Countermeasures" was decided by the Cabinet

* July 2010: This act was abandoned.

In 2020, 25% of GHG reduction compared to 1990 level.

In 2050, 80% of GHG reduction compared to 1990 level.

Carbon tax, emission trade and feed-in tariff are core policy options.

June 2010: The Cabinet issued the "New Growth Strategy".

"Green Innovation" is treated as one of strategic areas.

As of 2020, 50 tri. yen in demand and employment for 1.25 mil. people are created.

June 2010: "The Strategic Energy Plan of Japan" was revised by METI

In 2030, 30% of CO2 reduction compared to 1990 level.

In 2050, 80% of CO2 reduction compared to 1990 level.

AIM
ASIA-PACIFIC INTEGRATED MODEL

Lessons from Japan's experience

- Strong policy vision/target is inevitable.
  - After Mr. Hatoyama's speech, something has been changing.
- Communication to ordinary people is important.
  - The roadmap is too complicated to realize.
- Results among models are sometimes contradictory.
  - We need more discussion on assumptions rather than results at academic place like EMF.
    - energy saving technology
    - cost
    - renewable energy potential
    - behavior change

AIM
ASIA-PACIFIC INTEGRATED MODEL