GOVERNMENT OF MONGOLIA

MINISTRY OF ENVIRONMENT AND GREEN DEVELOPMENT

Current status of the implementation of the JCM in Mongolia

UNFCCC COP 20 & CMP 10 Side event: Actions for low carbon development in the developing countries through the Joint Crediting Mechanism
Lima, Peru
December 8, 2014

Saruul Dolgorsuren
Climate Change Coordination Office
Ministry of Environment and Green Development

POLICY

CLIMATE CHANGE RELATED LEGISLATION AND POLICY DOCUMENTS

- Law on Air revised (2012, 2010, 1995)
- Law on Environmental Protection (1995, 2007)
- Law on Disaster Prevention, 2003
- National Security Priorities
- The Mongolia Action Programme for the 21st Century (MAP21)
- National Action Program on Climate Change (NAPCC) (2000, 2011)
- The Strategy of Ecology of Mongolia
- The National Strategy of Sustainable Development
- The Strategy of Food and Agriculture
- The Strategy of Herders of Mongolia

THE MDG BASED COMPREHENSIVE NATIONAL DEVELOPMENT STRATEGY OF MONGOLIA (2008)

The Fifth priority ***is*** *"to create a sustainable environment for the development by promoting capacities and measures on adaptation to climate change, halting imbalances in the country's ecosystems and protecting them."*

Within the framework of the fifth priority, many goals and measures have been presented for Implementation. In particular, **goal six of the fifth priority** is to *"Adapt to climate change, establish and implement capacity to cope with adverse consequences of climate change."*

POLICY RELEVANT TO MITIGATEION OF GHG EMISSIONS

- Renewable Energy Law (2007)
- Law on Air Pollution Payment revised (2012)
- National Renewable Energy Program (2005)
- New Reconstruction Mid-term (development) Program (2010)

NAPCC

The “National Action Program on Climate Change” (NAPCC) was approved by the second resolution of State Great Khural (Parliament) on 6th January, 2011. The following five strategic objectives will be implemented in **two phases** over the period **2011-2016** and **2017-2021**.

➢ **In the first phase (2011-2016)**, national mitigation and adaptation capacities will be strengthened, legal, structural and management systems will be set up and community and public participation will be improved.

➢ **In the second phase (2017-2021)**, climate change adaptation measures will be implemented and start up greenhouse gas mitigation actions.

INDICATORS OF THE FIRST PHASE (2011-2016)

➢Specific fuel consumption of power plants for electricity generation will not exceed 340 gJ/ kW h.
➢Specific fuel consumption of thermal energy production will be reduced by 20 kgJ/gCal compared to 2010.
➢Renewable energy will account for 10 % of the total national energy production.
➢Heat use will be reduced by 25 %.

INDICATORS FOR THE SECOND PHASE (2017-2021)

➢Specific fuel consumption of power plants for electricity generation will not exceed 340 gJ/ kW h.
➢Specific fuel consumption of thermal energy production will be reduced by 30 kgJ/gCal compared to 2010.
➢Renewable energy will account for 20 % of the total national energy production.
➢Heat use will be reduced by 30 %.

Setting up National GHG Mitigation Targets

Green Development Policy (2014):

- Reduce CO_2 emissions per GDP twice compared to 2006 by 2020, and 2.5 times by 2030.
- Increase share of renewable energy in the total installed capacity to 20% by 2020, and 30% by 2030 and

National Action Programme on Climate Change (2011)

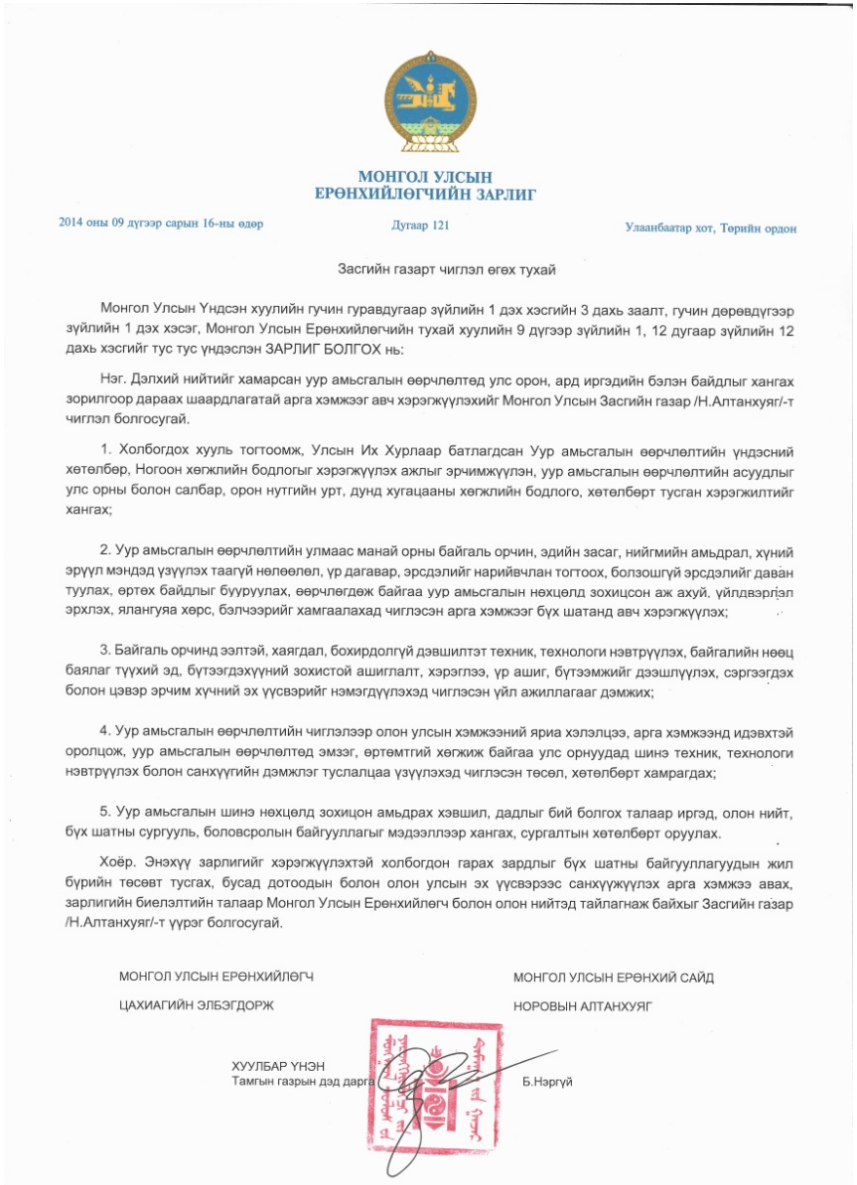
- Reduce fuel consumption of electricity generated in the central energy system by 10-20 gJ/ kW h by 2016,
- Reduce specific fuel consumption of thermal energy production by 20 kgJ/gCal compared to 2010 by 2016 ,
- Reach share of Renewable energy sources in the energy balance to 10 % by 2016,
- Reduce heat use by 25 % by 2016

National Renewable Energy Programme (2005)

- Increase share of renewable energy in total energy generation by 20-25% by 2020,
- Reduce energy system loss by more than 10% (baseline yr. 2005) by 2020

Decree of the President of Mongolia

as September 16, 2014



МОНГОЛ УЛСЫН
ЕРӨНХИЙЛӨГЧИЙН ЗАРЛИГ

2014 оны 09 дүгээр сарын 16-ны өдөр Дугаар 121 Улаанбаатар хот, Төрийн ордон

Засгийн газарт чиглэл өгөх тухай

Монгол Улсын Үндсэн хуулийн гучин гуравдугаар зүйлийн 1 дэх хэсгийн 3 дахь заалт, гучин дөрөвдүгээр зүйлийн 1 дэх хэсэг, Монгол Улсын Ерөнхийлөгчийн тухай хуулийн 9 дүгээр зүйлийн 1, 12 дугаар зүйлийн 12 дахь хэсгийг тус тус үндэслэн ЗАРЛИГ БОЛГОХ нь:

Нэг. Дэлхий нийтийг хамарсан уур амьсгалын өөрчлөлтөд улс орон, ард иргэдийн бэлэн байдлыг хангах зорилгоор дараах шаардлагатай арга хэмжээг авч хэрэгжүүлэхийг Монгол Улсын Засгийн газар /Н.Алтанхуяг/-т чиглэл болгосугай.

1. Холбогдох хууль тогтоомж, Улсын Их Хурлаар батлагдсан Уур амьсгалын өөрчлөлтийн үндэсний хөтөлбөр, Ногоон хөгжлийн бодлогыг хэрэгжүүлэх ажлыг эрчимжүүлэн, уур амьсгалын өөрчлөлтийн асуудлыг улс орны болон салбар, орон нутгийн урт, дунд хугацааны хөгжлийн бодлого, хөтөлбөрт тусган хэрэгжилтийг хангах;

2. Уур амьсгалын өөрчлөлтийн улмаас манай орны байгаль орчин, эдийн засаг, нийгмийн амьдрал, хүний эрүүл мэндэд үзүүлэх таагүй нөлөөлөл, үр дагавар, эрсдэлийг нарийвчлан тогтоох, болзошгүй эрсдэлийг даван туулах, өртөх байдлыг бууруулах, өөрчлөгдөж байгаа уур амьсгалын нөхцөлд зохицсон аж ахуй, үйлдвэрлэл эрхлэх, ялангуяа хөрс, бэлчээрийг хамгаалахад чиглэсэн арга хэмжээг бүх шатанд авч хэрэгжүүлэх;

3. Байгаль орчинд ээлтэй, хаягдал, бохирдолгүй дэвшилтэт техник, технологи нэвтрүүлэх, байгалийн нөөц баялаг түүхий эд, бүтээгдэхүүний зохистой ашиглалт, хэрэглээ, үр ашиг, бүтээмжийг дээшлүүлэх, сэргээгдэх болон цэвэр эрчим хүчний эх үүсвэрийг нэмэгдүүлэхэд чиглэсэн үйл ажиллагааг дэмжих;

4. Уур амьсгалын өөрчлөлтийн чиглэлээр олон улсын хэмжээний яриа хэлэлцээ, арга хэмжээнд идэвхтэй оролцож, уур амьсгалын өөрчлөлтөд эмзэг, өртөмтгий хөгжиж байгаа улс орнуудад шинэ техник, технологи нэвтрүүлэх болон санхүүгийн дэмжлэг туслалцаа үзүүлэхэд чиглэсэн төсөл, хөтөлбөрт хамрагдах;

5. Уур амьсгалын шинэ нөхцөлд зохицон амьдрах хэвшил, дадлыг бий болгох талаар иргэд, олон нийт, бүх шатны сургууль, боловсролын байгууллагыг мэдээллээр хангах, сургалтын хөтөлбөрт оруулах.

Хоёр. Энэхүү зарлигийг хэрэгжүүлэхтэй холбогдон гарах зардлыг бүх шатны байгууллагуудын жил бүрийн төсөвт тусгах, бусад дотоодын болон олон улсын эх үүсвэрээс санхүүжүүлэх арга хэмжээ авах, зарлигийн биелэлтийн талаар Монгол Улсын Ерөнхийлөгч болон олон нийтэд тайлагнаж байхыг Засгийн газар /Н.Алтанхуяг/-т үүрэг болгосугай.

МОНГОЛ УЛСЫН ЕРӨНХИЙЛӨГЧ
ЦАХИАГИЙН ЭЛБЭГДОРЖ

МОНГОЛ УЛСЫН ЕРӨНХИЙ САЙД
НОРОВЫН АЛТАНХУЯГ

ХУУЛБАР ҮНЭН
Тамгын газрын дэд дарга Б.Нэргүй

No 121.

1.1 To intensify the implementation of the National Action Plan on Climate change, Green Development Policy and other CC related policies

1.2 To take actions on adaptation counter measures at any levels especially for soil and grassland

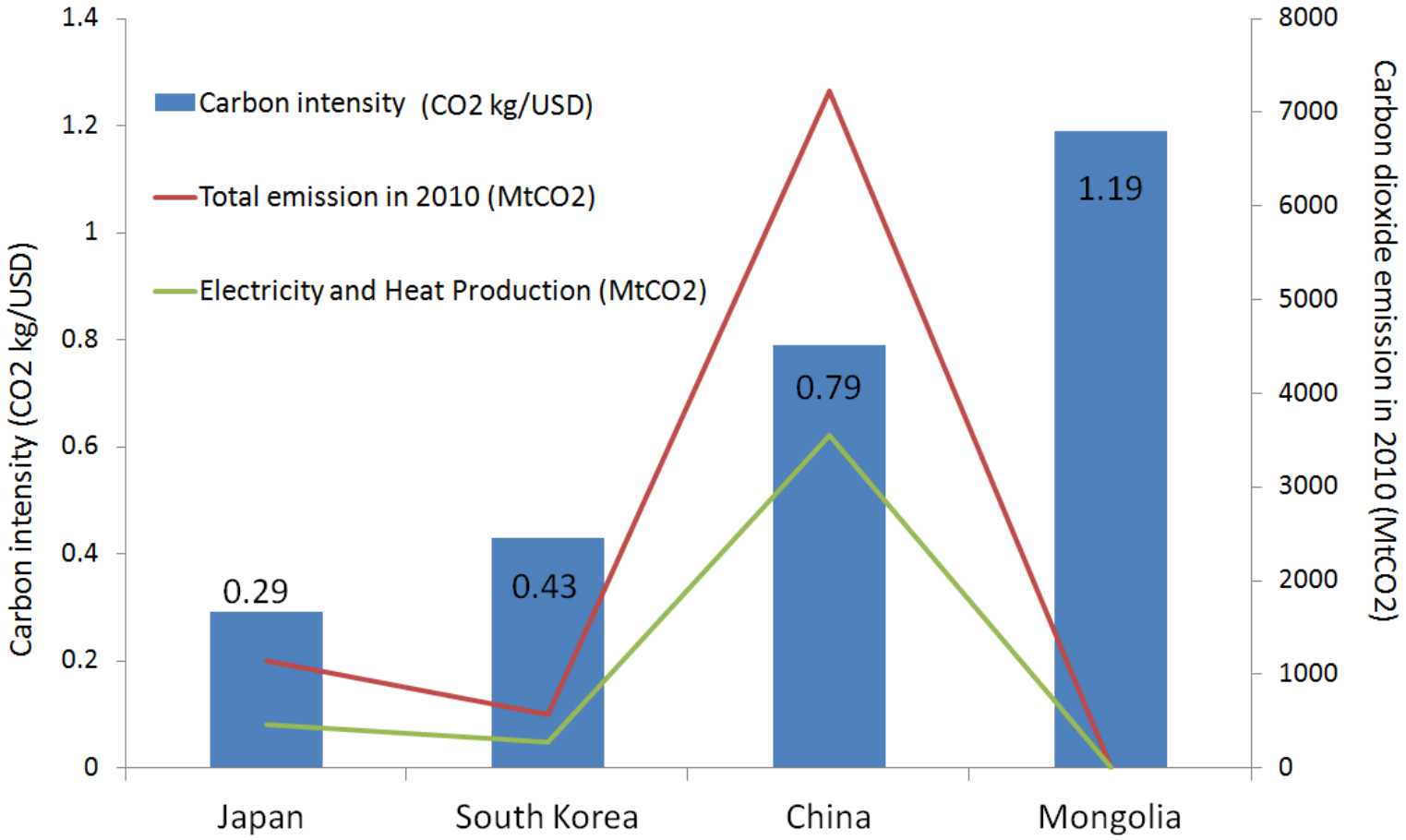
1.3 To penetrate environmentally friendly and zero waste technologies, to increase efficiency of natural resources and raw materials, and to support actions toward to increase RE and clean energy sources

1.4 To activate the participation for international negotiations and get financial and technological support via implementing projects

1.5 To increase awareness for citizens and develop curriculum for schools

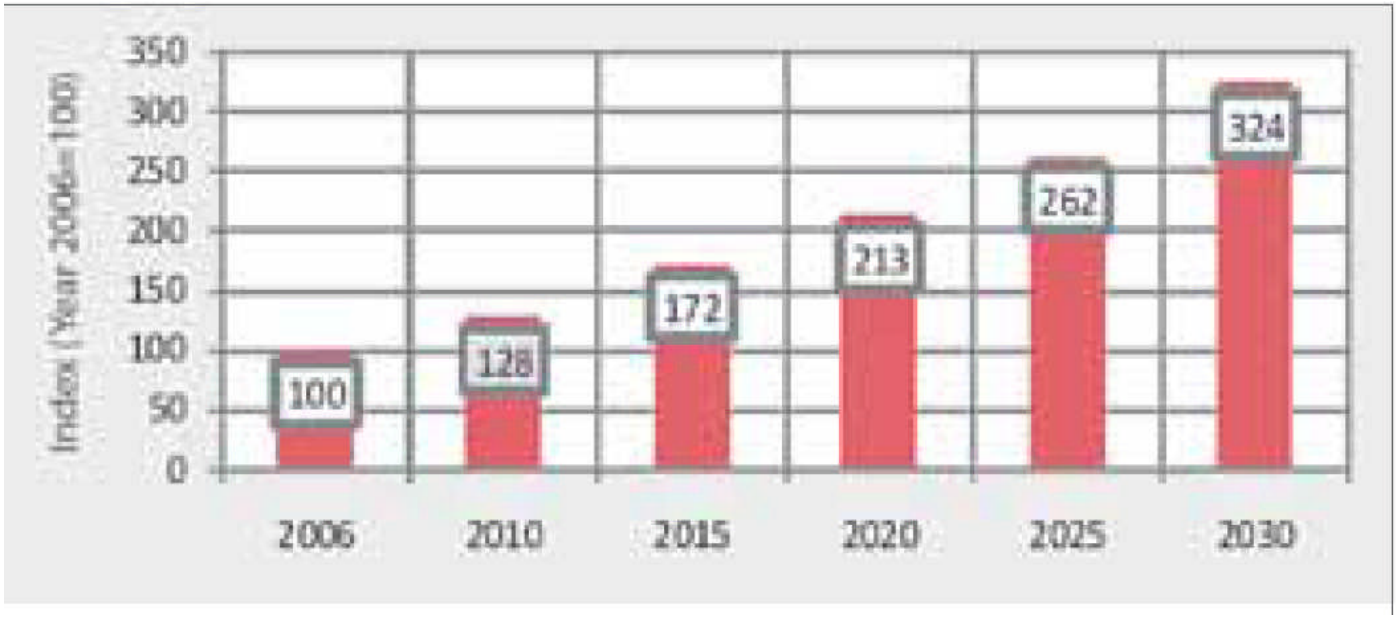
2. To issue budget for each fiscal year to implement this decree , take actions to get internal and external financial support and the government is obligated to fulfill and report the implementation of this decree for president and public.

Carbon intensity



Economics of Climate change in East Asia, ADB (2013)

Projected GHG emission trend



Source: Second National Communication of Mongolia (2010)

The growing trend of GHG emission in Mongolia since 2006 is expected to continue due to the current industrial development. The projections indicate that Mongolia's GHG emissions would rise above 2006 levels by about 2.1 times in 2020 and 3.2 times in 2030 .

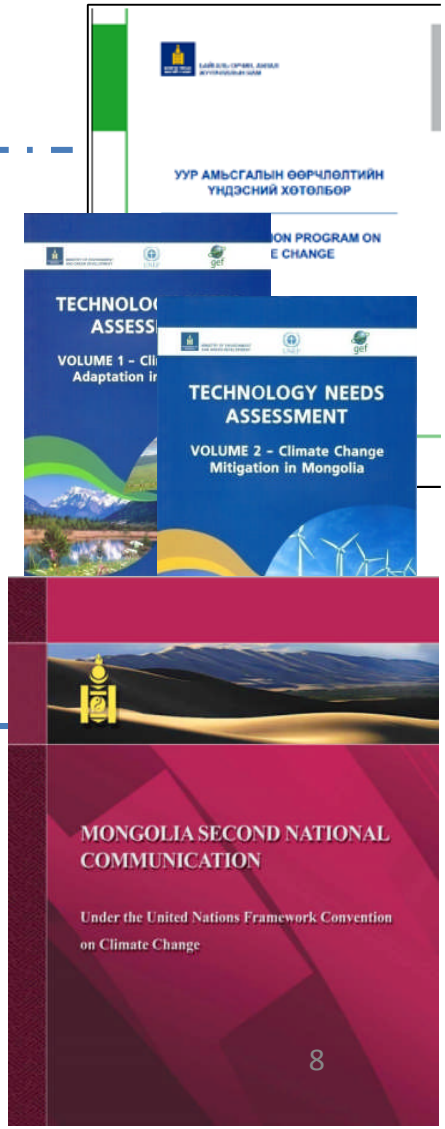
Current status of Mongolia under the UNFCCC

The Mongolian government's response to address the issue of climate change has been positive

- Ratification of the UNFCCC (1993)
- Ratification of the Kyoto Protocol (1999)

Undertaken steps to implement UNFCCC's goal

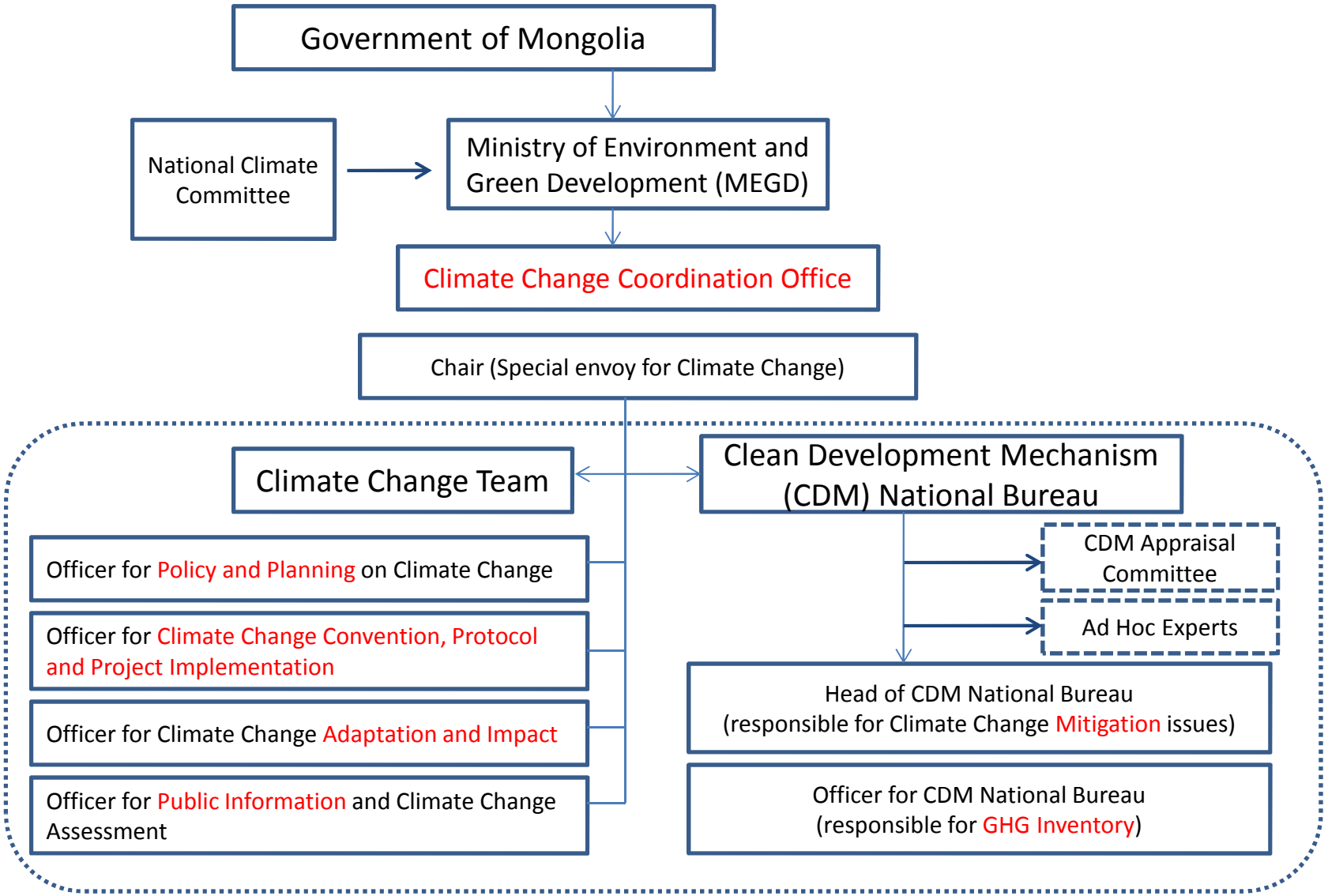
- Initial national communication (1st November 2001)
- Submission on NAMAs (28th January 2010)
- Second national communication (10th December 2010)
- National Action Program on Climate Change (6th January 2011)
- Technology Needs Assessment (2013)



Upcoming steps to implement UNFCCC's goal

-Preparation of Third National Communication (TNC)
-Preparation of first Biennial Update Report (BUR)
-Preparation of Intended National Determined Contribution (iNDC)

Main institutional arrangement for climate change issue in Mongolia



Current status of JCM in Mongolia

Road to "LCDP"

Governmental consultation
(Ulaanbaatar -3 July 2012)

Governmental consultation
(Tokyo -1 November 2012)

Governmental consultation
(Doha -30 November 2012)

[redacted]

Signing of the "Low Carbon Development Partnership" (bilateral document for the JCM)

(Ulaanbaatar- 8 January 2013)

Start of "JCM"

[redacted] first

JCM second Joint Committee meeting
(Ulaanbaatar - 20 February 2014)

Joint Committee

Mongolia	Japan
Co-Chair	Co-Chair
Members (7 Ministries and UB City Authority)	Members (2 Ministries and Japanese Embassy in Mongolia)
Secretariat	Secretariat
Observers	Observers

Selected projects for FY2013 (MOEJ's Subsidy)

Type	Project title	Estimated GHG Reductions
JCM Model project	Upgrading and Installation of Centralized Control System of High-Efficiency Heat Only Boiler	750 tCO2/year
JCM Project Planning Study (PS)	10MW-scale Solar Power Plant and Rooftop Solar Power Generation System	(i) 16,500 tCO2/year (ii) 4 tCO2/year/project
JCM Methodology Demonstration Study (DS)	Centralization of Heat Supply System by Installation of High-Efficiency Heat Only Boiler	750 tCO2/year
JCM Feasibility Study	Improvement of Thermal Insulation and Water Cleaning/Air Purge at Power Plant	3,000 tCO2/year
	10MW-scale Solar Power Generation for Stable Power Supply	17,537 tCO2/year
	Energy conservation at cement plant	78,000 tCO2/year

Selected projects for FY2013 (NEDO&METI)

Type	Project title	Estimated GHG Reductions
NEDO's Feasibility Studies with the Aim of Developing the JCM		
Feasibility Study	GHG emission reduction by introducing an energy-efficient complex in Ger area of Ulaanbaatar	500 t CO2/year/complex
NEDO's Dissemination and Promotion of Global Warming Countermeasure Technology Program Country: Mongolia		
Demonstration and verification project	High efficiency and low loss power transmission and distribution system in Mongolia	-
Ministry of Economics, Trade and Industry (METI)		
Feasibility Study	Research on developing projects on wind power generation	-

New Support Program Enabling Leapfrog Development (ADB)
- ADB-JCM Finance Scheme

Background and Purpose

By utilizing the superior and advanced low-carbon technologies, Japan assists the developing countries to enable to "Leapfrog" development and let the developing countries achieve the "Harmony with Nature, Low Carbon and Sound Material Cycle" Society" as the new paradigm suit to 21th Century in Asia Pacific Area

Scheme

Fund to ADB
Project Period : 2014 to 2020

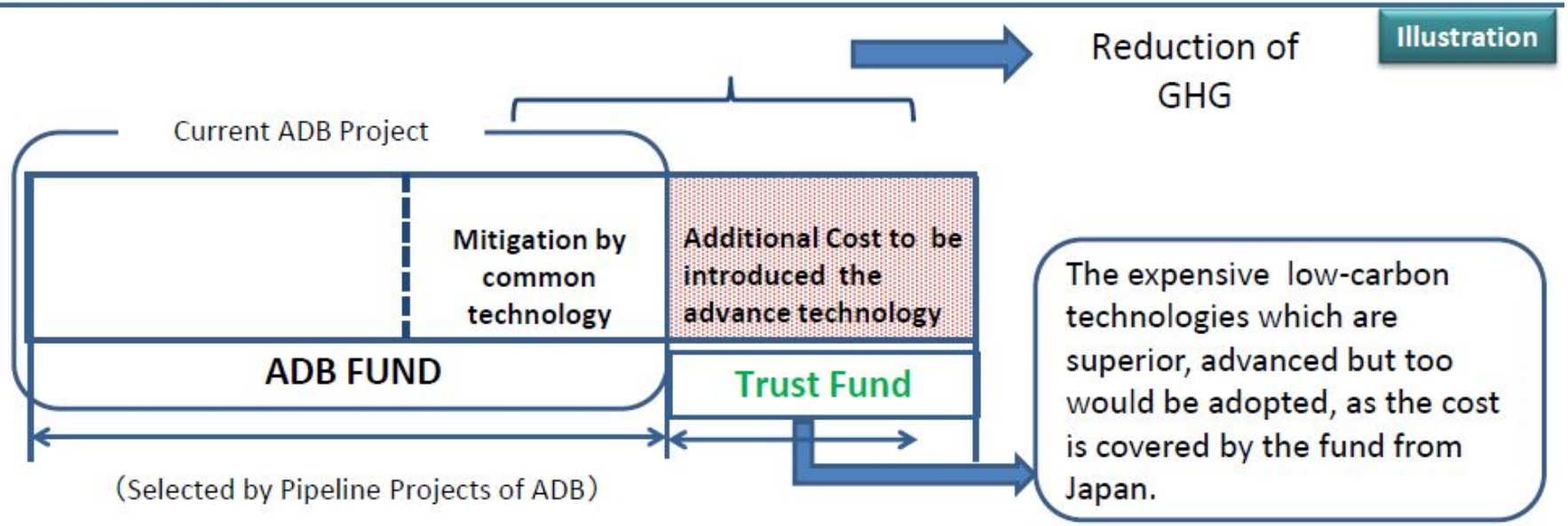
Description

The low-carbon technologies which are superior, advanced but too expensive would be adopted, as the cost is covered by the fund from Japan. Due to this finance scheme, the assistances to developing countries by ADB lead to the "Leapfrog" developments and Japan acquires Credit by JCM .

Effectiveness

- Contribution to acquire the Credit by JCM as well as reducing the GHG in the developing countries.
- Expanding the superior and advanced low-carbon technologies in Japan to Asia and Pacific.

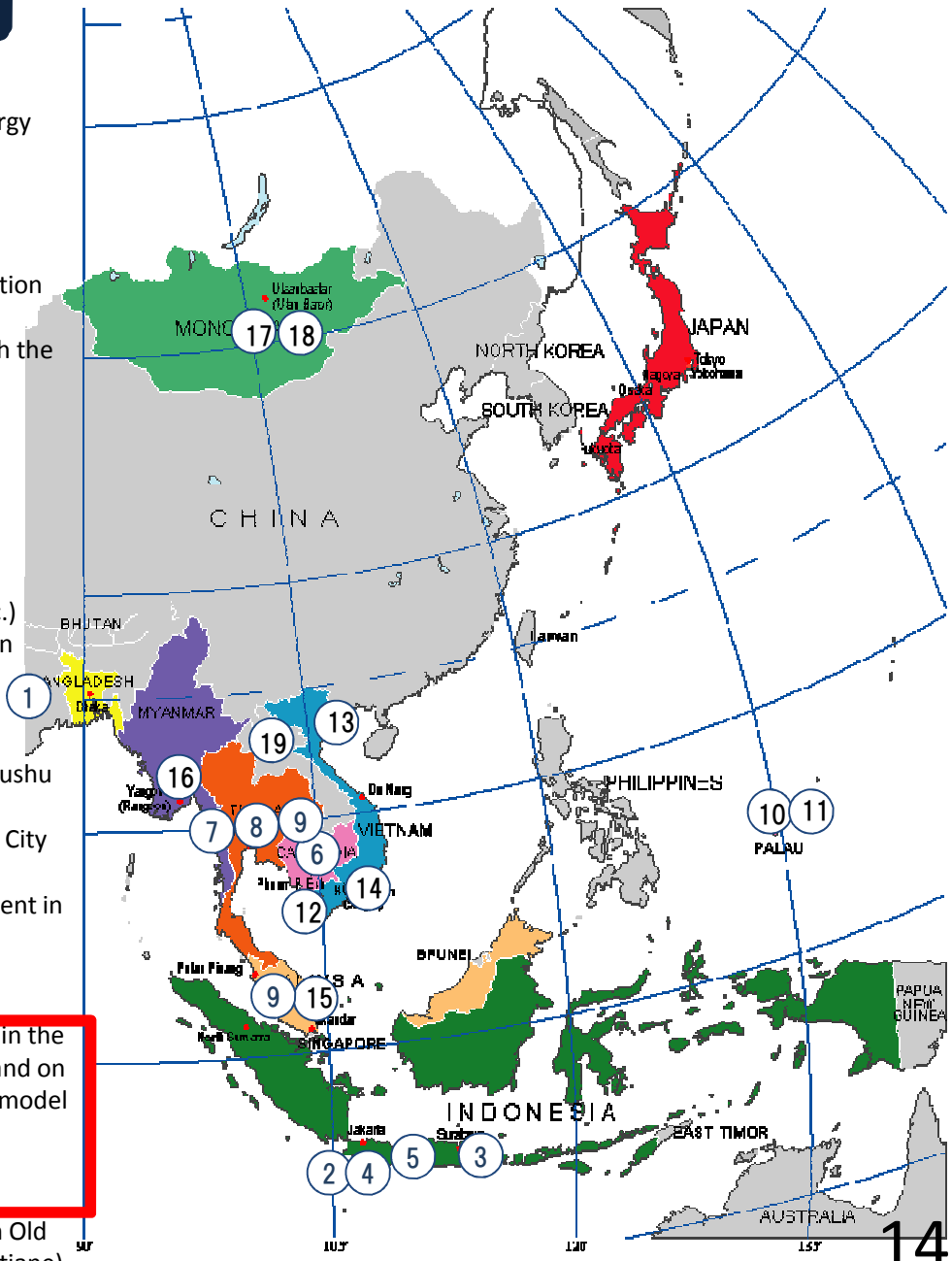
Illustration



Large Scale JCM Feasibility Study in 2014 by MOEJ

Selected Studies

1. The feasibility study to promote Low Carbon Technology application in India(Gujarat , Maharashtra ,Pumjab ）
2. Feasibility study on financing scheme development project for promoting energy efficiency equipment installation in Indonesia(Jakarta, Bali etc.)
3. Low Carbon City Planning　Project in Surabaya, Indonesia(Surabaya City)
4. Feasibility Study on Eco-Lease Scheme for Low Carbon Vehicle towards Joint Crediting Mechanism Projects Expansion（Indonesia National Level）
5. Collaboration on Project for Developing a Low Carbon Society under collaboration between Bandung city and Kawasaki cityin Bandung, Indonesia(Bandung)
6. Study for Developing Environmentally and Culturally Sustainable Cities through the Joint Crediting Mechanism in Siem Reap(Angkor Park and Siem Reap city)
7. Study on the Accelerating Implementation of Bangkok Master Plan on Climate Change through the JCM(Bangkok)
8. Introduction of a recycling system for cars and parts in Thailand(Bangkok)
9. Strategic Promotion of Recovery and Destruction of Fluorocarbons （Bangkok/Johor Bahru ）
10. Demonstration Project on Installing an Evacuation Shelter with Renewable Energy as a “Low-Carbon/Resilient Model for Small Island Countries”(Palau etc.)
11. Feasibility study on comprehensive resource circulation system for low carbon society in Republic of Palau(Palau)
12. The feasibility study toward eco-island　in cooperation between Kien Giang Province and Kobe City(Kien Giang Province)
13. Hai Phong Green Growth Action Plan Development in Association with Kitakyushu City（Hai Phong City）
14. Ho Chi Minh City – Osaka City Cooperation Project for Developing Low Carbon City (Ho Chi Minh City)
15. Feasibility Study on a Large-Scale GHG Emissions-Reduction Project Development in the Iskandar Development Region, Malaysia(Iskandar Development Region)
16. Feasibility Study on Rice Husk Power Generation System for Low-carbon Communities in Ayeyarwady Region, Myanmar(Ayeyarwady)
17. Study for the development of JCM projects for comprehensive improvements in the power generation, transmission and distribution systems in Ulaanbaatar City and on the possibility of nationwide horizontal application of the same improvement model in Mongolia(Ulaanbaatar)
18. Feasibility study on a programme-type finance scheme for the JCM in Mongolia(Ulaanbaatar)
19. JCM Feasibility Studies of GHG Mitigation Projects Contributing to Low Carbon Old Capital based on City-to-City Cooperation between Vientiane and Kyoto("Vientiane)



1. Study for the development of JCM projects for comprehensive improvements in the power generation, transmission and distribution systems in Ulaanbaatar City and on the possibility of nationwide horizontal application of the same improvement model in Mongolia

1. Project Outline

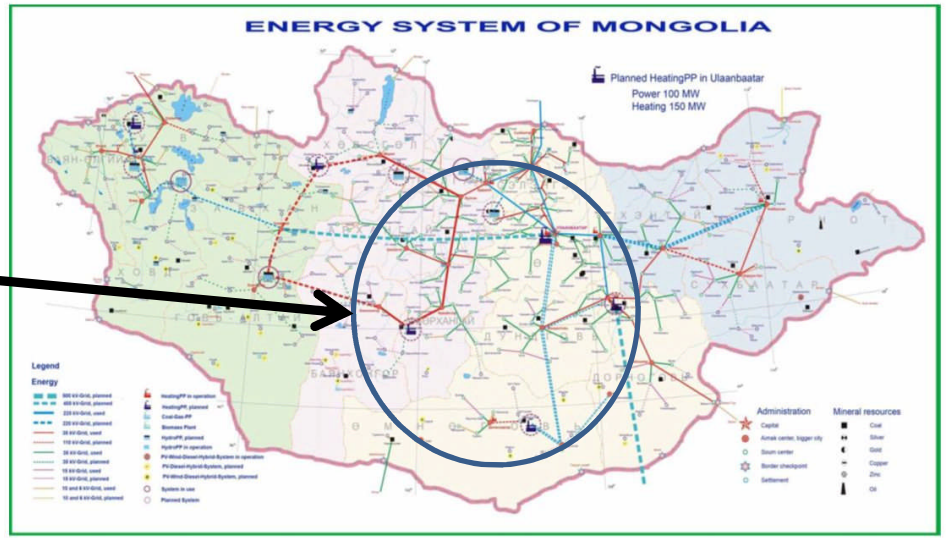
(1) Improvement in the efficiency of the Ulaanbaatar CHP3 with the use of advanced Japanese maintenance, operation and management technologies

(2) Comprehensive replacement and upgrading of the facilities for power transmission and distribution in Ulaanbaatar City

(3) Understanding the needs of power generation, transmission and distribution in other major cities in the country with a view to nationwide horizontal application of the improvement measures of (1) and (2).

2. Target Site

Ulaanbaatar City and Central Grid in Mongolia

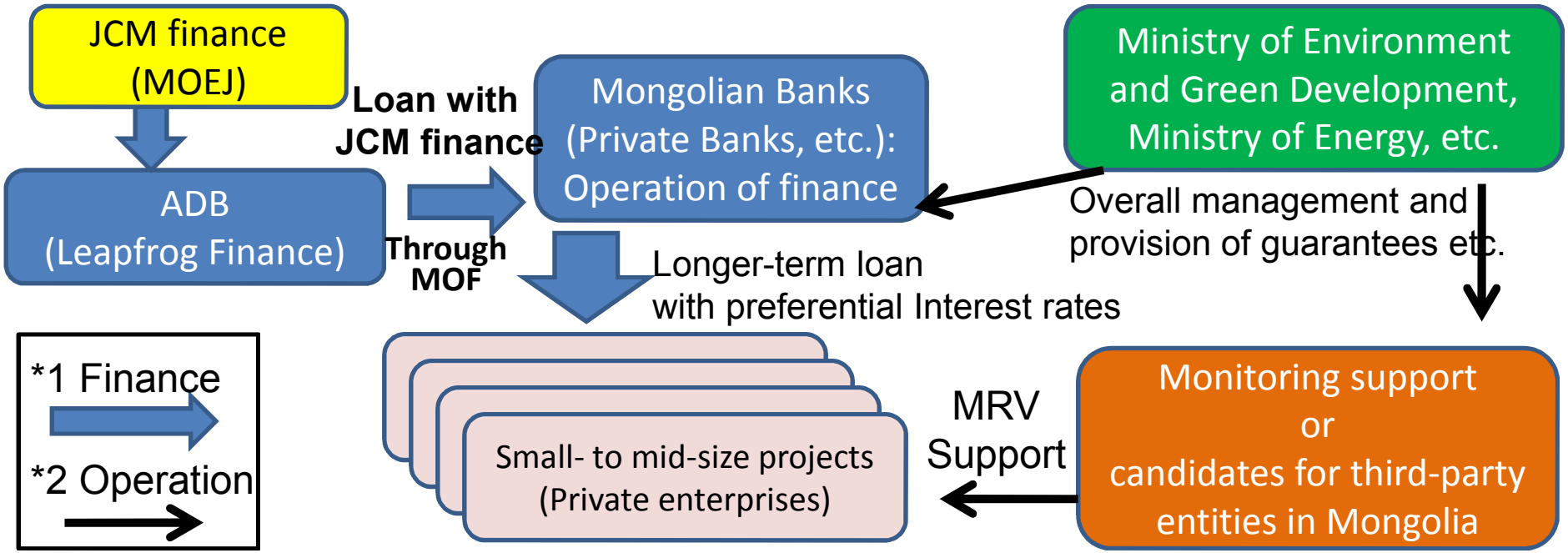


Thermal Power Plant in Mongolia

2. Feasibility study on a programme-type finance scheme for the JCM in Mongolia

1. Project Outline

The proposed study will be carried out in order to design a programme-type finance scheme for the JCM with the use of the JCM leap-frog finance and in partnership with local banks that will facilitate the implementation of small- to middle-scale JCM projects



The use of government guarantees and JCM finance will enable the introduction of advanced Japanese technologies with the use of longer-term loan with preferential interest rates.

Advantages to the proposed finance scheme:

* It will enable the introduction of Japanese technologies tailored to the needs of Mongolia.
* Local entities will effectively manage a number of small- to middle-scale projects.

Challenges related to implementing JCM

- Technical barriers (e.g. methodology development, monitoring, validation and verification)
- Financial barriers (e.g. upfront investment)
- Institutional barriers (e.g. lack of information, inter-ministerial coordination and secretariat of capacity etc)

Future perspectives on the implementation of JCM

- Big scale projects focused on priority areas
- More clear & definite financing scheme (timing; scheme for PPP)
- Involvement of other international organizations to diversify the financial sources such as ADB, JICA etc.,
- Activities for match-making between Japanese and Mongolian enterprises (web platform etc.,)

CONCLUSION

- Experience on CDM creates the basis for new market based mechanisms including JCM in Mongolia.
- Current market uncertainty creates strong need and considerable interests for new source of carbon finance including new market mechanisms.
- It's important to design the mechanism in a way which helps scale up emission and increase coverage of mitigation activities.
- Promotion of cooperation between private sectors/project developers of the two country is important in increased implementation of joint projects and successful transfer and diffusion of low carbon technologies.
- Effective cooperation between two country will be crucial for the establishment, promotion and implementation of the JCM.

Баярлалаа !

Thank you very much!

ご清聴有難うございました !!

For more: http://www.climatechange.gov.mn

http://www.cdm-mongolia.com/