

**REPUBLIC OF INDONESIA  
CLIMATE CHANGE PROGRAM LOAN  
(2010-2012)**

**PROGRAM EVALUATION FINAL REPORT  
(SUMMARY)**

**MARCH 2013**

**JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
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## 1. Introduction

Although categorized as a Non-Annex I country under the United Nations Framework Convention on Climate Change (UNFCCC), Indonesia is one of the world's top greenhouse gas (GHG) emitting countries due to the large amount of GHG emissions from the deterioration of forestry and peatland and its sharply increasing energy demands. Likewise, Indonesia is considered to be highly vulnerable to the impacts of climate change.

With this as the background, the Government of Indonesia (GOI) has actively committed to climate change issues. Indonesia hosted the 13th session of the Conference of the Parties to the UNFCCC (COP13) in 2007, and worked hard on concluding “the Bali Roadmap” as the chair country. At the G-20 summit held in Pittsburgh in September 2009, Dr. H. Susilo Bambang Yudhoyono, the President of the Republic of Indonesia, announced a national target of reducing GHG emissions by 26% less than Business as Usual (BAU) by 2020, adding that it could be reduced up to 41% if international support was available.<sup>2</sup>

At the same time, Indonesia has developed its domestic policies addressing climate issues. The GOI has introduced a series of action plans, laws and institutions to promote climate change mitigation/adaptation measures, and has continuously worked on ground-level projects. Particularly during the last several years, the GOI has made efforts to mainstream climate change in the national development plan, and established several basic plans including the *National Action Plan addressing Climate Change (RAN-PI, 2007)* and *National Development Planning: Indonesia Responses to Climate Change (Yellow Book, 2008)*.

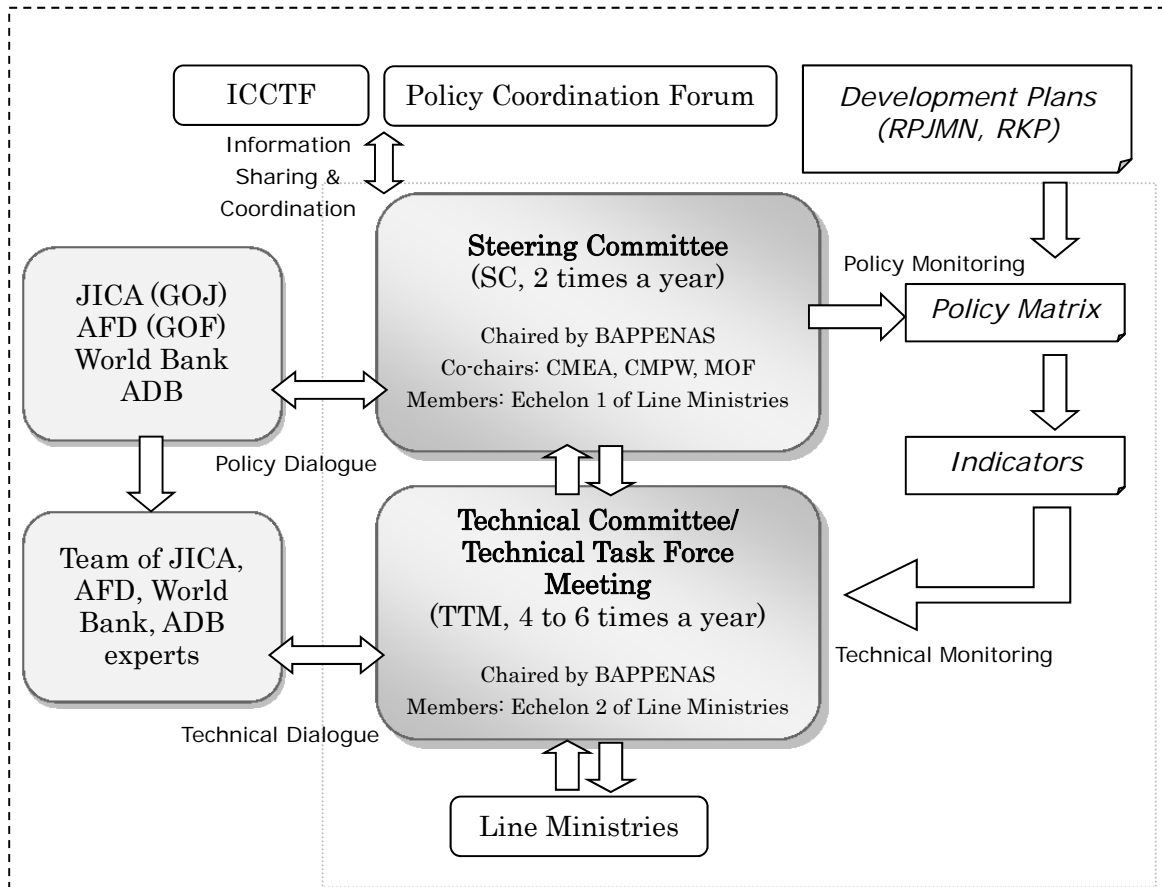
To support the GOI's further commitment to climate change issues, the Government of Japan (GOJ) agreed to introduce the Indonesia Climate Change Program Loan (ICCPL), a large-scale program loan under GOJ's initiative called the Cool Earth Partnership,<sup>3</sup> with the GOI in August 2008. The ICCPL was designed to support a wide range of Indonesian efforts to deal with climate change issues, including some key policy reforms, through the provision of 300 million USD per year over three years as general budget support instead of financing individual climate change mitigation and adaptation projects. Following this agreement, Agence Française de Développement (AFD) also agreed to provide co-financing. In addition, the World Bank announced it would join the CCPL in 2010, and the Asian Development Bank (ADB) followed in 2011.

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<sup>2</sup> This 26% reduction goal was further elaborated later and submitted to the UNFCCC in 2010 as a voluntary GHG emissions reduction based on the Copenhagen Accord.

<sup>3</sup> The Cool Earth Partnership is a financial mechanism to assist developing countries aiming to achieve emissions reductions and economic growth simultaneously, and working to contribute to climate stability. GOJ aimed to provide 10 billion USD (1,250 billion JPY as of January 2008) in aggregate over five years (2008-2012).

Figure 1: Coordination Structure of the CCPL



CMEA, Coordinating Ministry for Economic Affairs  
 CMPW, Coordinating Ministry for People’s Welfare  
 MOF, Ministry of Finance  
 RKP, Government Action Plan

The CCPL supports the GOI to strengthen climate change policies and in mainstreaming climate issues into overall national development policies through the following components:

- 1) **Financial assistance;**
- 2) **Monitoring the implementation of climate change policies, leading to enhanced coordination among stakeholders;** and
- 3) **Identifying barriers for implementing the climate change policies, necessary measures and further cooperation schemes.**

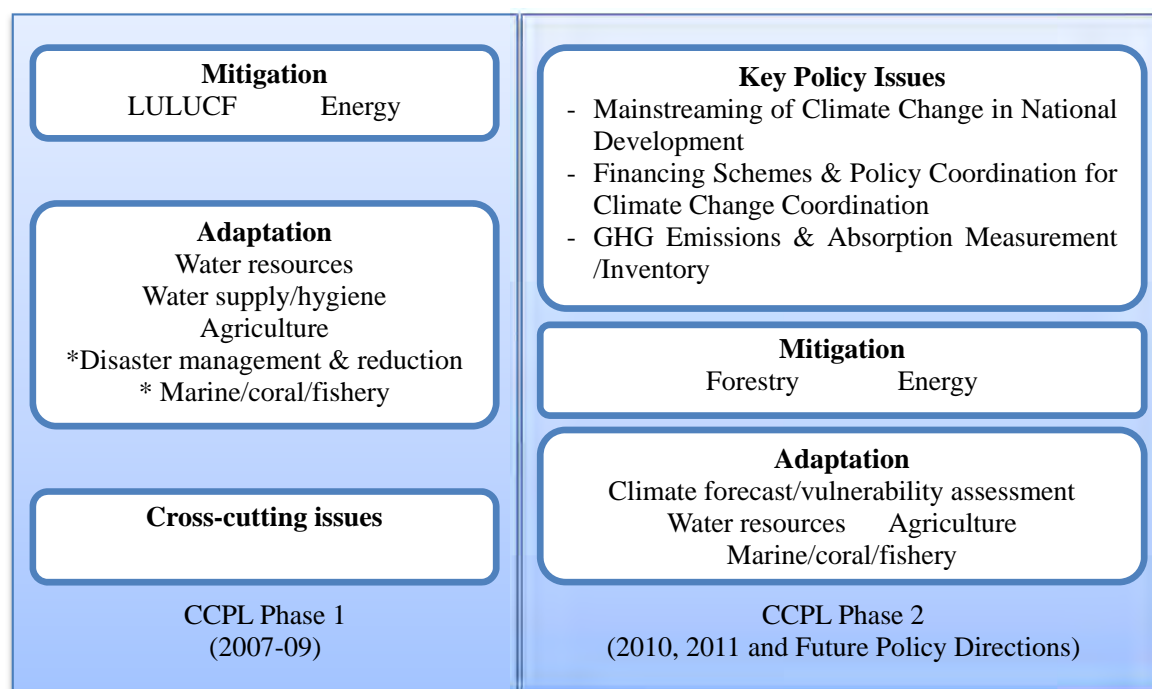
To effectively operate the above components of the CCPL, two methodologies were adopted: the Policy Matrix, a set of policy targets/actions covering both short-term (yearly) and medium-term (three or more years) goals extracted and summarized from the GOI’s key policy documents; and joint monitoring activities to analyze the progress/attainments of the targets/actions and to identify challenges.

The CCPL Phase 1 (2007-2009) Policy Matrix covered the following sectors: Land Use, Land-Use Change and Forestry (LULUCF); Energy; Water Resources; Water Supply and Sanitation; Agriculture; Disaster Management; Marine, Coral and Fisheries; and Cross-cutting Issues.

As a result of discussions between the GOI and the development partners the Policy Matrix was revised for CCPL Phase 2 (2010, 2011 and Future Policy Directions) to cover the following issues:

- 1) **Key Policy Issues** including the Mainstreaming of Climate Change in National Development, Financing Schemes and Policy Coordination for Climate Change, and GHG Emissions/Absorption Measurement and Inventory;
- 2) **Mitigation** in the areas of Forest Management and Governance, Peatland Management, REDD+, Renewable Energy Development, Energy Saving/Efficiency, Energy Price Reform, Overall Transportation Policies, Modal Shifting and Traffic Management; and
- 3) **Adaptation** in the areas of Understanding of Climate Change Impacts and Vulnerability Assessment, Water Resources Management, Agriculture, and Marine, Fisheries and Coastal Communities.

Figure 2: Sectors covered by the Policy Matrixes of CCPL Phases 1 & 2



\*Disaster management & reduction sector and Marine, Coral and Fishery sector were included in the Policy Matrix from CY2009.

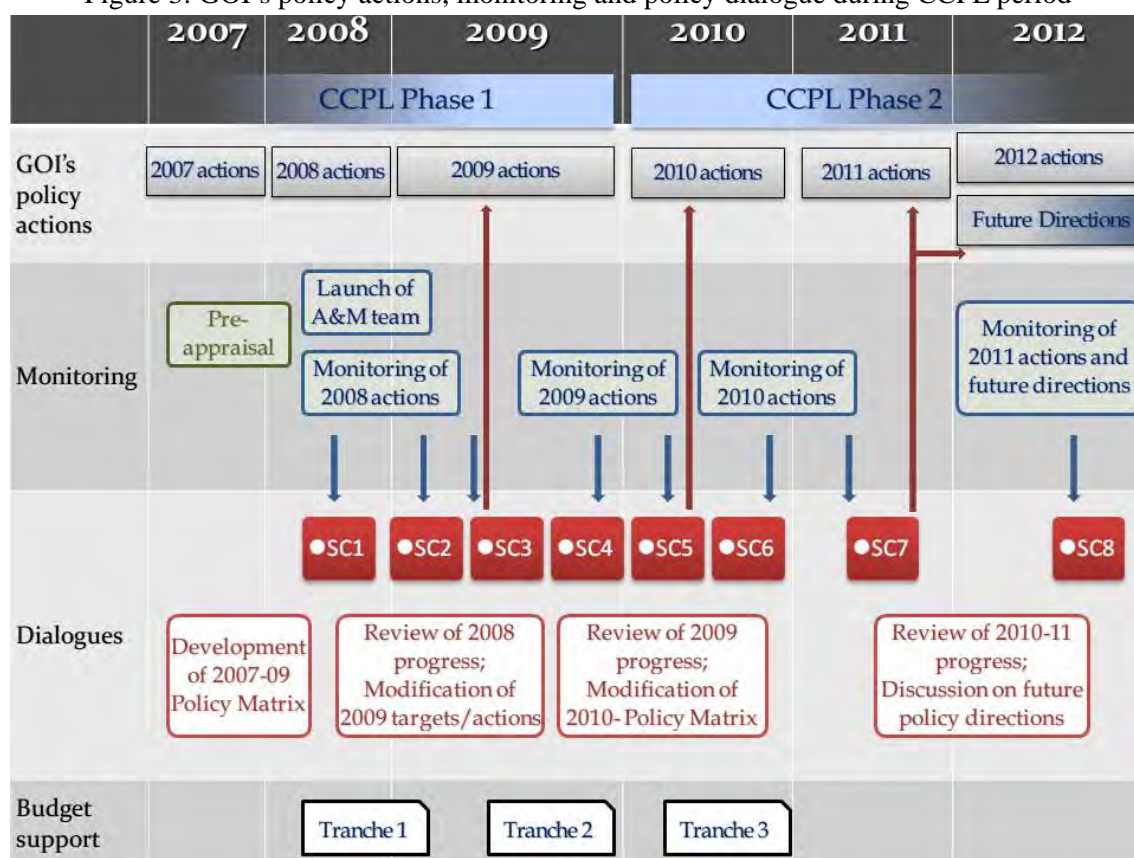
Following the launch of CCPL Phase 1 in 2008, the GOI and development partners held five meetings of the Steering Committee (SCs) to discuss the direction of the program, confirm the progress/attainments of climate change policies in Indonesia, identify challenges to this progress and

examine further cooperation needs. The results of the discussions at the SCs were used as triggers for GOJ and the Government of France (GOF) to determine disbursement of the budget support in 2008 and 2009.

In 2010 the CCPL entered Phase 2, with an additional development partner, namely, the World Bank. During Phase 2, SCs were held three times, and the budget support was disbursed in 2010 by GOJ, GOF and the World Bank. The Asian Development Bank (ADB) expressed its intention to join the CCPL scheme as a partner from 2011. However, since the GOI decided to cancel its acceptance of the CCPL in late 2011, the ADB did not provide budget support.

In short, since the launch of the program in 2008, SCs were held eight times, and budget support was provided three times (Figure 3).

Figure 3: GOI's policy actions, monitoring and policy dialogue during CCPL period



On November 2, 2012, the eighth SC was convened in Jakarta, at which the GOI and the development partners confirmed the attainments of the program since 2008 and agreed to further improve cooperation and information exchange beyond the CCPL scheme.

The Program Evaluation Report aims to analyze the contribution of the CCPL to: (1) the mainstreaming of climate change issues in the GOI's development policies; as well as (2) the progress

of institutional reforms and on-the-ground activities to promote climate change mitigation and adaptation in Indonesia, during the period from 2008 to 2012. To this end, the sections below analyze: (1) the contribution of the CCPL framework and process to the mainstreaming of climate change in Indonesia as a whole; and (2) the progress of development/mainstreaming in each sector covered in the CCPL Policy Matrix.

## **2. Analysis (1) Contribution of the CCPL**

### **◆ The CCPL's contribution to the improvement of stakeholder coordination**

The CCPL contributed to the improvement of coordination/cooperation among the GOI's National Development Planning Agency (BAPPENAS) and other relevant ministries as well as within the ministries.

#### **The Steering Committees (SCs) and the Technical Taskforce Meetings (TTMs)**

BAPPENAS and the line ministries had more opportunities to discuss climate change issues while they carried out the monitoring activities and prepared and convened the TTMs and SCs.

Discussions were held at TTMs and SCs in relation to monitoring results, progress, challenges and measures to be taken on the policy issues. The issues brought up at the SCs during CCPL Phases 1 and 2 included, but were not limited to: the introduction of incentive schemes for independent power producers (IPPs) to invest in geothermal power development; the review of the GERHAN (National Movement on Forest and Land Rehabilitation) program; the importance of strengthening forest management and governance; capacity development of local governments to plan and implement climate change policies; and further coordination between the CCPL and other international cooperation programs. The discussions contributed to GOI agencies and the development partners gaining deeper understandings on these issues, and to making substantial progress including: the acceleration of Forest Management Unit (FMU) establishment; the preparation of incentive schemes mainly to provide financial support to local governments; the development of an action plan as well as a revision of the Standard Operating Procedure (SOP) for the Indonesia Climate Change Trust Fund (ICCTF); and the decision to conduct environmental assessments in implementing *the Masterplan for Enhancement and Acceleration of Economic Development (MP3EI)*. Furthermore, high-level dialogues were held at the occasions of SCs between the executive policy advisor delegated by JICA and relevant GOI ministers. These dialogues also facilitated discussions on the challenges of climate change issues as well as further opportunities of cooperation, and enhanced ownership among GOI's ministries.

However, unlike SCs, TTMs could not fulfill their expected functions, except that of reporting monitoring results to SCs, particularly during CCPL Phase 1. BAPPENAS, in consultation with JICA



and the monitoring support team, tried to improve the functions of TTMs during CCPL Phase 2. Line ministries also showed more positive attitudes toward the TTMs in Phase 2. Consequently, TTMs became able to effectively play their originally intended functions: reporting monitoring results to SCs; developing schedules and work plans; technical coordination for monitoring; and providing recommendations to SCs.

### **Discussion/coordination besides the SCs and TTMs**

Besides the opportunities embedded in the CCPL, BAPPENAS and other coordinating ministries had close dialogues within and among government agencies, as well as with the private sector and local governments, while they worked on the laws and regulations related to climate change policies.

Coordination among the development partners has also improved. JICA and AFD actively shared information through the joint implementation of monitoring, especially of the mitigation sectors. Particularly in the forestry sector, JICA and AFD worked closely on the design, data gathering, analysis and reporting of the impacts and mechanism reviews of GERHAN as well as on strengthening forest management and governance.

During CCPL Phase 2, the GOI convened a Climate Change Policy Coordination Forum with the aim of enhancing coordination and cooperation with the development partners. Development agencies not involved in the CCPL were also invited to the forum and exchanged their knowledge and opinions, particularly on the measures to strengthen coordination among international agencies, and to correct supply-demand imbalances in cooperation projects/programs addressing climate change. The participants provided favorable reviews of the forum, and requested that BAPPENAS continue it after the CCPL period at the 8th SC.

### **Additional cooperation programs/projects**

The policy dialogues and monitoring activities also contributed to the introduction of a number of cooperation programs and projects. Above all, JICA's Project of "Capacity Development for Climate Change Strategies in Indonesia" (2010 to 2015) would create a wide range of impacts on climate change policies in Indonesia by directly supporting the development of action plans, the execution of vulnerability assessments, and the development of the GHG inventory system.

## **◆ CCPL monitoring activities: the mechanism, achievements and challenges**

### **The monitoring mechanism**

BAPPENAS, JICA and AFD jointly established a monitoring mechanism for the CCPL. External experts were involved in the Advisory and Monitoring team (A&M team) with the intention of

enabling advisory and monitoring activities based on a high level of expertise and on a neutral and impartial basis. A&M team, supported by JICA experts working at relevant line ministries as well as the local experts with abundant experience of working with the government organizations, made contact with relevant counterparts at the relevant ministries/agencies and obtained necessary information. Based on the information it collected, the monitoring team analyzed progress, attainments, obstacles and challenges, and reported the results to the SCs together with policy recommendations on measures to overcome obstacles, and for potential cooperation projects. The monitoring activities thus served as the basis of stakeholder dialogues at the SCs.

### **Challenges**

However, there was room for improving the monitoring mechanism. Regular monitoring activities and TTMs could not gain sufficient commitment from the line ministries due to their limited understanding of the objectives and the framework of the CCPL. The fact that the CCPL was carried out as a general budget support program also created confusion among the line ministries: they did not receive financial resources directly through the scheme, and thus the benefit was less tangible in comparison to project assistance. Additionally, joint monitoring by donor agencies could have been introduced to avoid duplication of monitoring activities, e.g. interviews by each donor agency.

The monitoring activities also faced difficulties due to the targets and indicators set in the Policy Matrix. The targets were not clear enough for the well-organized pursuit of collecting information, analyzing and verifying attainments, and specifying obstacles. Furthermore, some of the targets did not properly reflect feasibility issues: some of the targets/actions had already been abandoned or postponed by the implementing agency when they were stated in the Policy Matrix.

### **Attainments and further contributions**

The monitoring team utilized the opportunities of interviews and meetings with GOI officials to discuss the issues of the challenges observed in the progress of policy actions and effective measures. In this manner the team contributed to the improvements of policies in each sector. In particular, the issues closely discussed included, but were not limited to: the GERHAN program; the establishment of FMUs; improving the Special Allocation Fund (DAK); and the introduction of a Feed-in-Tariff (FIT) and exploration fund scheme to encourage IPPs to develop geothermal power plants.

In addition, the monitoring support team cooperated with BAPPENAS in its support activities in developing a Regional Action Plan on Green House Gas Emissions Reduction (RAD-GRK) for each province in 2012.

Last but not least, the GOI reflected the experiences gained during the CCPL Policy Matrix development and monitoring activities in its own monitoring system of the policies specified in *the*

*National Medium-Term Development Plan (RPJMN)*, and introduced the concept of “Rewards and Punishments” to provide implementing bodies such as national ministries and local governments with better incentives. Hence, we can consider that the experience of the CCPL indirectly contributed to the improvement of the transparency and effectiveness of the GOI’s policies.

### **3. Analysis (2) Highlights of the mainstreaming of climate change issues and the progress of climate policies in each sector**

During the 2008 to 2012 period, the GOI carried out a number of legal and institutional reforms at the national level to mainstream climate change issues in its overall development strategies, and established and/or improved financial schemes and incentive mechanisms to promote climate policies at various levels. The CCPL, as one of the major cooperation schemes addressing these issues in Indonesia, contributed to these attainments.

The section below describes some of the major achievements/progress in the mainstreaming of climate change issues and the progress in climate policies in each sector covered in the CCPL Policy Matrix.

#### **◆ Highlights of progress in the GOI’s institutional/legal reforms concerning climate change mitigation/adaptation**

The GOI carried out a number of institutional reforms to accelerate the accumulation of scientific knowledge, the development of roadmaps and action plans and the improvement of stakeholder coordination related to climate change issues.

Agencies concerning climate change issues that were newly established/reorganized during the 2008 to 2012 period include, but are not limited to:

- The National Council on Climate Change (DNPI), established in 2008;
- The Agency for Meteorology, Climatology and Geophysics (BMKG), reorganized from the Agency for Meteorology and Geophysics (BMG) in 2008;
- The Climate Change Committee, established in 2008 under the Agency for Agricultural Research and Development (AARD), the Ministry of Agriculture (MOA);
- ICCTF, established in 2009 by BAPPENAS with support from the governments of the United Kingdom, Australia and Sweden;
- The Climate Change Working Unit (MAPI), established in the Ministry of Public Works (MOPW) in 2009;
- The Directorate General of New Energy, Renewable Energy and Energy Conservation under the Ministry of Energy and Mineral Resources (MEMR) established in 2009;
- The REDD+ Taskforce, established under the Presidential Working Unit for Supervision and

Management of Development (UKP4) in 2010;

- The National GHG Inventory Systems (SIGN) Unit, established in 2011 under the MOE; and
- The Indonesia Climate Change Center, established in 2012 on the initiative of DNPI with the support of the Government of the United States, to serve as a forum to coordinate scientists and policy makers.

As well as the establishment/reorganization of agencies and organizations, a number of roadmaps and action plans on climate change policies have been developed. Among them, the following documents/laws are the most important milestones:

- *The National Action Plan addressing Climate Change (RAN-PI)*, issued in 2007;
- *The Indonesia Climate Change Sectoral Roadmap (ICCSR)*, issued in 2009;
- *The Medium-term National Development Plan (RPJMN) 2010-2014*, issued in 2009 with special concern on climate change issues as one of four cross-sectoral challenges and one of 13 priorities;
- *The National Action Plan on Greenhouse Gas Emissions Reduction (RAN-GRK)*, issued in 2010 toward attaining the national target of GHG emissions reduction of 26% less than BAU by 2020;
- RAD-GRKs, developed in 2012 in 29 out of 33 provinces;
- *The National Action Plan on Climate Change Adaptation (RAN-API)*, developed in 2012; and
- *The REDD+ National Strategies* developed in 2012.

#### ◆ Progress in the sectors covered in the CCPL Policy Matrix

In addition to the above initiatives toward the mainstreaming of climate change issues in the GOI's ministries and agencies, a number of legal developments, institutional/financial reforms and on-the-ground activities were carried out. The CCPL Policy Matrix covered a substantial part, if not all, of such initiatives, and specified their yearly and medium-term targets. The highlights of progress observed in the sectors covered in the Policy Matrix are as follows.

##### 3.1. Key Policy Issues

Three policy outcome areas set as Key Policy Issues were: (1) **Mainstreaming Climate Change in the National Development Program**; (2) **Financing Scheme and Policy Coordination for Climate Change**; and (3) the **GHG Emissions and Absorption Measurement Inventory**.

The GOI advanced its policies to establish a favorable system that provides better budget allocations linked to climate change policy performance and financing for climate change actions. The GOI has also developed framework policies for the national GHG inventory system. Major attainments of

indicators in CCPL Phase 2 are summarized below.

The policy actions set for the area of **Mainstreaming Climate Change in the National Development Program** aimed to attain the outcome target “Climate change program is implemented in all related ministries towards the achievement of the national target (26% GHG emissions reduction from BAU in 2020).” Progress in this area includes:

- *ICCSR* was finalized in 2010;
- *Indonesian Voluntary Mitigation Action* was sent by the GOI to the UNFCCC in 2010;
- Based on the NAMA concept, *RAN-GRK Guideline* was issued in 2011;
- *Presidential Regulation No. 61/2011 on RAN-GRK* was issued in 2011;
- *The National Strategy for Mainstreaming Adaptation* was finalized in 2012; and
- RAD-GRKs were prepared in 29 provinces (as of January, 2013).

The policy actions set for the area of **Financing Scheme and Policy Coordination for Climate Change** aimed to attain the outcome target “Policy coordination on climate change is enhanced and linked to National Budget and Planning processes.” Progress in this area includes:

- *ICCTF Business Plan 2011-2020* was prepared in 2011;
- The SOP for the ICCTF was revised in 2011;
- A study on Performance Based Budgeting (PBB) was conducted in 2010, and PBB was introduced in 2011; and
- Studies on incentive mechanisms were conducted in 2011.

The policy actions set for the area of **GHG Emission and Absorption Measurement Inventory** aimed to attain the outcome target “Monitoring mechanism for carbon emissions and absorption is established through National GHG Inventory System.” Progress in this area includes:

- The SIGN unit was established in 2010;
- Presidential Regulation No. 71/2011 on the National GHG inventory was issued in 2011;
- To further implement the national GHG inventory, general guidelines for the inventory were completed in 2011; and
- The SIGN Center was established in 2013.

### **3.2. Forestry**

Since forest loss including peat fires is considered to be the major contributor (about 60%) to GHG emissions in Indonesia, the forestry sector has become the most important for Indonesia’s effort to pursue its national target of reducing GHG emissions by 26% (less than BAU by 2020). To advance policy measures in the forestry sector, four outcome areas were incorporated into the CCPL Phase 2 Policy Matrix, which are: (1) **Forest Management and Governance**; (2) **Peatland Conservation**; (3) **REDD+**; and (4) **Afforestation and Reforestation**.

These target outcome areas are consistent with government climate change priorities as set out in *RAN-PI* and are also relevant to priority policies set in the Ministry of Forestry (OFR)'s *Strategic Plan 2010-2014 (RENSTRA)*.

The policy actions set for the area of **Forest Management and Governance** aimed to attain the outcome target “Forest governance and management is improved through the establishment of improved rules on FMUs, financial scheme for local governments and timber legality.” Progress in this area includes:

- Model FMUs have been established at 59 sites, along with the development of the regulatory framework for FMUs to support the implementation of FMUs in provinces and districts;
- The Forestry DAK mechanism has been improved regarding areas and activities eligible to be funded, along with the issuance of the Technical Guidance of Forestry DAK for 2012; and
- A timber legality verification system (SVLK) has been developed to assure timber legality.

The policy actions set for the area of **Peatland Conservation** aimed to attain the outcome target “An institutional and regulatory framework to conserve and restore peatland is improved.” Progress in this area includes:

- The Government Regulation on Lowland and Government Regulation on Protection and Management of Peat Ecosystem were prepared, and are currently undergoing the policy coordination process; and
- The Peatland Hydrological Unit in Sumatra map was produced.

The policy actions set for the area of **REDD+** aimed to attain the outcome target “Emissions from deforestation and forest degradation are reduced through the implementation of a national REDD framework.” Progress in this area includes:

- Presidential Instruction No. 10/2011 (Inpres No. 10/2011) on the moratorium was issued in May 2011 and MOFR has produced a series of moratorium indication maps (PIPIB in Indonesian); and
- National Strategy of REDD+ was finalized in June 2012 by the REDD+ Task Force.

The policy actions set for the area of **Afforestation and Reforestation** aimed to attain the outcome target “Carbon sink capacity is increased through reforestation activities.”

Progress in this area includes:

- A 100,000 ha replanting program has been completed and the technical design was developed for another 100,000 ha; and
- Ministerial decree SK.07/Menhut-II/2011 on forest land allocation for timber plantation was issued in January 2011.

### 3.3. Energy

The outcome areas set for the energy sector were: (1) **Renewable Energy Development**; (2) **Energy Efficiency**; and (3) **Pricing**. Major attainments in CCPL Phase 2 are summarized below.

The policy actions set for the area of **Renewable Energy Development** aimed to attain two outcome targets: (1) “Improve energy security and reduce future GHG emissions from electricity generation through new geothermal projects within an improved policy framework for private sector participation;” and (2) “The promotion of renewable energy development is improved by monitoring, evaluating and revising the new regulations.”

Progress for outcome target (1) includes:

- A Geothermal Exploration (Revolving) Fund was created in 2011; and
- A FIT for geothermal power production was introduced in 2011.

Progress for outcome target (2) includes:

- A FIT for biomass, biogas and MSW was introduced in 2012; and
- Preparation of a FIT for solar and wind has made progress to be introduced in 2013.

The policy actions set for the area of **Energy Efficiency** aimed to attain two outcome targets: (1) “GHG emissions are reduced (or strategies for reducing GHG emissions are formulated) by enhanced energy efficiency in energy intensive sectors through the use of new technology and the rehabilitation, renovation and replacement of existing facilities;” and (2) “Demand side management becomes a major part of government regulations and eventually contributes to fiscal budget management.”

Progress for outcome target (1) includes:

- The Ministry of Industry (MOI)’s Grand Strategy for energy conservation in the industrial sector with financing from the ICCTF was introduced and its first phase was implemented, covering energy conservation and emissions reduction in 35 steel companies and 15 pulp and paper companies; and
- MOI technical guidance for emissions reduction in the cement industry was issued in 2011.

Progress for outcome target (2) includes:

- *The Master Plan for Energy Conservation (RIKEN)* was prepared, the issuance of which is subject to the issuance of *the National Energy Policy (KEN)*; and
- Procedures and prerequisite performance tests for Energy Saving (CFL) lamps were introduced.

The policy action set for the area of **Pricing** aimed to attain the outcome target of “Energy consumption is better controlled by a more cost-oriented pricing mechanism, contributing to reducing both GHG emissions and energy subsidies.” Progress for this outcome target includes:

- The roadmap for energy subsidies was completed in 2010; and
- The electricity subsidy was reduced in the State Budget of Revenues and Expenditures (APBN)

2012 by 20 trillion IDR compared with APBN 2011.

### 3.4. Transportation

The GOI developed important plans and introduced new systems/facilities toward reducing GHG emissions in the transportation sector, which accounts for about 37% of the final energy consumption in Indonesia in 2009.<sup>4</sup> The transportation sector has been included in the CCPL Policy Matrix since 2010, covering the outcome areas of: (1) **Overall Transportation Policy**; (2) **Modal Shifting**; and (3) **Traffic Management**. Major attainments of indicators in CCPL Phase 2 are summarized below.

The policy actions set for the area of **Overall Transportation Policy** aimed to attain the outcome target “Transportation policy is enhanced enough to avoid deteriorating traffic congestion.” Progress in this area includes:

- *The Jabodetabek (Jakarta, Bogor, Depok, Tangerang and Bekasi) Transportation Master Plan* was revised in 2011; and
- The Presidential Regulation for the Jabodetabek Transportation Authority (JTA) was drafted by 2011.

The policy actions set for the area of **Modal Shifting** aimed to attain the outcome target “The increase rate of car users remains at a low level, and is less than that of users of public transportation.” Progress was made in 2010 with a slight delay, as follows:

- Development of Bus Rapid Transit (BRT) in two cities; and
- Improvement of pedestrian facilities and bicycle lanes.

The policy actions set for the area of **Traffic Management** aimed to attain the outcome target “Traffic management is enhanced enough to avoid deteriorating traffic congestion.” Progress in this area includes:

- Area Traffic Control Systems (ATCSs) were introduced in Bogor and Surakarta in 2010; and
- The arrangements for Electronic Road Pricing (ERP) were specified in Government Regulation 32/2011 on Traffic Management in 2011.

### 3.5. Adaptation

The GOI has made progress in developing the foundations of adaptation measures. The CCPL Phase 2 (2010, 2011 and Future Policy Directions) Policy Matrix covered institutional development, planning and ground-level projects for climate change adaptation in four sectors, namely: (1) **Climate Forecasting and Impact and Vulnerability Assessment**; (2) **Water Resources Management**; (3) **Agriculture**; and (4) **Marine, Coral and Fisheries**.

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<sup>4</sup> MEMR (2011). *Handbook of Energy and Economy Statistic 2010*.



Generally speaking, good attainments were observed for the actions in the sectors of Climate Forecasting and Vulnerability Assessment, and Marine, Coral and Fisheries. Most of the yearly targets were attained, and the attainments further evolved into actions in succeeding years. On the other hand, attainments of actions in the Water Resources and Agriculture sectors have varied widely through the years. While some of the actions went beyond attaining the targets, others fell short. Major attainments of indicators in CCPL Phase 2 are summarized below.

The policy actions set for the area of **Climate Forecasting and Impact and Vulnerability Assessment** aimed to attain the outcome target “Strengthening of institutional and regulatory framework and capacity for scientific research on adaptation.” Progress in this area includes:

- *The Climate Modeling Scenarios* were developed by 2011;
- The Climate Database was developed by 2011;
- Vulnerability assessment studies have been continuously carried out; and
- The Indonesian Global Ocean Observation System (INAGOOS) was established in 2010, and its strategic plan during the period from 2011 to 2014 was issued.

The policy actions set for the area of **Water Resource Management** aimed to attain the outcome target “Improving water resource management including climate change adaptation measures specifically in nationally strategic river basins.” Progress in this area includes:

- Strategic assessment of the future of water resources on the island of Java was conducted in 2010;
- Provincial Water Resource Councils have been operating since 2010;
- Water resource management strategic plans (POLAs) with climate change assessment have been developed for the nationally strategic river basins on the island of Java since 2008; and
- River basin master plans have been prepared since 2010.

The policy actions set for the area of **Agriculture** aimed to attain the outcome target “Strengthening of institutional and regulatory framework to improve resilience of farm production and reduce drought risk.” Progress in this area includes:

- The System for Rice Intensification (SRI) has been operational since 2007;
- Climate Field Schools Programs (CFSs) have been carried out since 2007;
- Land management without burning has been carried out since 2010;
- The Presidential Instruction on the security measures for rice production in the face of extreme climate conditions was issued in 2011; and
- Technical guidelines on CFS and SRI have been issued each year by the responsible institutions at MOA and BMKG, respectively.

The policy actions set for the area of **Marine, Coral and Fisheries** aimed to attain the outcome target “Strengthening of institutional and regulatory framework to manage coastal zones and small islands.”

Progress in this area includes:

- *The Climate Resilient Village Plan for Coastal Areas* was developed in 2010;
- *The Coastal Vulnerability Index* was developed by 2010; and
- Research on the variability of CO<sub>2</sub> flux and updating of the Strategic Plan for Blue Carbon Research were carried out in 2010 and 2011.

## 4. Conclusions, lessons and recommendations

### ◆ Conclusion

The CCPL made direct and indirect contributions to progress in the mainstreaming of climate change issues in the GOI's development policies. The framework of the CCPL, comprising the Policy Matrix, Joint Monitoring Activities and Policy Dialogues, has been effectively utilized toward generating several influences, as follows:

- Improvement of coordination and information sharing among the stakeholders within the GOI as well as with development partners;
- Identification of progress/attainments and obstacles/challenges of climate change policies in the relevant sectors of forestry, energy, transportation and adaptation; and
- Introduction of remedial actions for the challenges identified as well as formulation of further project assistance on the basis of the monitoring results and policy dialogues.

Most of the policy actions/targets set in the Policy Matrix were attained as scheduled. Some of the actions/targets including legal development requiring agreement among multiple stakeholders were not attained; however relevant organizations have been continuing the efforts of coordination and have made substantial progress.

Such favorable achievements of the program would provide a platform for the GOI toward further progress of its climate change policies toward medium- to long- term goals specified in *ICCSR*, *RAN-GRK* and *RAN-API*. Furthermore, the experiences could also be applied to the international cooperation programs addressing climate change issues in other countries.

### ◆ Lessons learned

The GOI, development partners and the monitoring team faced some challenges during the CCPL period. The following issues in particular could have been addressed with possible countermeasures at an early stage in order for the CCPL to generate more favorable impacts:

- The ministries/agencies in charge of program coordination within the recipient government (BAPPENAS in the case of Indonesia) might face difficulty in gaining active participation of the line ministries. Provision of human and physical resources to support the coordinating ministry/agency in charge of program management could contribute to the efficient operation of

- the program;
- BAPPENAS was an appropriate coordinating entity for CCPL monitoring, considering their mandate related to the national development planning, such as planning, budget allocation (together with the MOF) to the priority sectors as well as monitoring of the implementation of *RPJMN* and RKPs in cooperation with relevant ministries and agencies;
  - The ownership among the line ministries was weak, at least in the beginning of CCPL due to lack of incentives for them to participate in CCPL. Incentive mechanisms to the line ministries could be explored such as introduction of CCPL related budgetary allocation mechanism. Ownership has been enhanced through high-level dialogues between the executive policy advisor delegated by JICA and relevant GOI ministers as well as the joint studies among donor agencies and relevant ministries on specific issues. However, incentive mechanisms to the line ministries could also be explored when a cooperation program/project addressing climate change issues including CCPL is prepared;
  - Strengthening the network of relevant officials in charge of climate change program, by providing an appropriate forum for consulting and information sharing on climate change policies, in either donor and/or recipient country involving line ministries and program coordination ministries/agencies, together with logistical support to the participants to join the forum, could have been incorporated within the framework of the cooperation program;
  - The relevance of the Policy Matrix could be periodically and flexibly reviewed among the stakeholders throughout the program period to reflect the national priorities of the recipient government. In the case of Indonesia some of the sectors prioritized by the GOI, namely health for adaptation and agriculture for mitigation, were not included;
  - The monitoring activities might not be effectively operated if the targets/actions lacked clearly defined monitoring methods of their achievements, including evaluation criteria and verification measures (such as evidence required). Furthermore, some of actions/targets had already been attained and/or relinquished when policy matrix was formulated. In such cases it was also difficult to obtain productive results from policy dialogues;
  - Measures need to be taken to minimize the burden of the line ministries to participate in the monitoring activities and policy dialogues. Establishment of an inter-organizational coordination mechanism as well as creation of a division/unit in charge of coordination on climate change programs within each of the relevant ministries could be useful. It should also be noted that the resident experts dispatched by JICA as well as the local experts with abundant experience of working with the government officials were of great support to monitoring activities while minimizing the burdens to the line ministries. However, further utilization of current monitoring mechanism of governmental programs and actions as well as joint monitoring by donor agencies could have been introduced to avoid duplication of interviews; and
  - A flexible and speedy technical assistance and/or grant assistance scheme could be incorporated

within or in parallel to the CCPL process in order to support any additional needs related to climate change programs of line ministries to gain their more active involvement.

Such experiences could be utilized toward future climate policies in Indonesia, as well as in international cooperation programs addressing climate change issues in other countries.

## ◆ Recommendations

### **Toward effective cooperation programs addressing climate change issues**

The operation of the policy dialogues and monitoring activities are the keys to effectively promoting the mainstreaming of climate change issues. Therefore, the evaluation team sincerely hopes that the governments of developing countries and international development partners will consider the following points while preparing cooperation programs.

Policy dialogues could be fully utilized to improve coordination. To this end:

- Policy dialogues need careful design to enable discussions on relevant agenda items among relevant participants;
- Coordination among the development partners needs to be dealt with in the preliminary stage of the program;
- Measures to further encourage line ministries' commitment to monitoring and dialogues could be consistently introduced; and
- Information exchange, role sharing and synergy between the program and other development partners and other initiatives addressing climate change issues could always be addressed.

Monitoring activities could serve as a process for understanding the progress of policy actions, identifying challenges and exploring potential cooperation schemes, with a positive commitment by the responsible organizations. To this end:

- Too much strain on the responsible organizations is to be avoided when the mitigation/adaptation action plans are implemented and the results are monitored. To this end it is recommended to cooperate with the resident experts dispatched by the development partners as well as the local experts with abundant experience of working with the government officials ;
- It is also desirable that tangible benefits for the responsible organizations are explored, including the provision of additional technical assistance; and
- The targets/indicators require to be set with clearly defined monitoring methods, including evaluation criteria and verification measures (such as evidence required). At the same time, the timing of policy matrix development could be carefully determined.

### **Toward further development of climate change policies in Indonesia**

The GOI is expected to continue its commitment to climate change issues in its medium- to long-term goals, including GHG emissions reduction as well as building the resilience of its economy and society. To ensure further progress, the GOI and the development partners would consider several key points on climate change policies in Indonesia, as follows.

Upstream strategies including *RAN-GRK/RAN-API* and RAD-GRKs could be further improved with:

- More detailed action plans based on the refined scenarios of mitigation/adaptation; and
- Enhancement of the GHG inventory systems.

Mitigation and adaptation actions could be further mainstreamed sectorally and at the local level. To this end:

- Further support could be introduced, including the capacity development of relevant ministries/agencies;
- Systems for information sharing and capacity development need to be designed in parallel to the program;
- A mechanism for rectifying regional imbalances in the supply and demand of financial, technical and human resources as well as coordination with international support programs/projects could be established, and effectively linked with the MRV systems;
- A mechanism for the optimal allocation of international funds with the aim of obtaining credits could be developed through clarifying the treatment of REDD+ in *RAN-GRK* and RAD-GRKs to reflect international discussions and agreements on climate finance and credits;
- International cooperation programs/projects could be further enhanced in addition to existing or currently planned REDD+ programs/projects; and
- Development partners need to be identified at an early stage to cooperate in programs/projects to be counted in the “additional 15%” toward reduction of GHG by 41% with international support.