

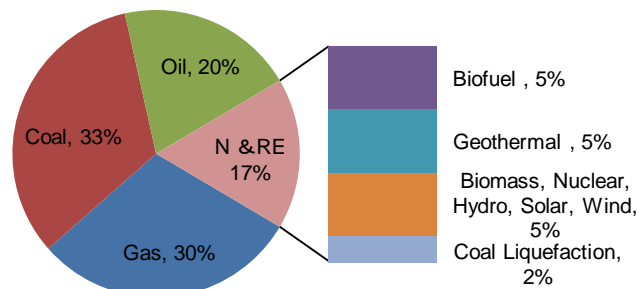
Market Mechanism Country Fact Sheet : Indonesia

National Climate Change Policy in Indonesia

Name	Indonesia Climate Change Sectoral Roadmap
Objective	To set several goals with regards to adaptation and mitigation of climate change to be achieved in the next 20 years
Target sectors	Water, Marine and Fisheries, Agriculture, Health, Transportation, Forestry, Industry, Waste
Year implemented	2010

Energy Policy in Indonesia

National primary energy supply in year 2025



Source: Ministry of Energy and Mineral Resources.

Energy Efficiency

Indonesia's National Energy Policy to 2030 has an economy-wide target of a 1% per year reduction in energy intensity

Indonesia National Energy Policy (2006)

Renewable Energy

The share of RE in the primary energy supply will grow from the current 4.3% to 17% in 2025 Renewable Energy.

Geothermal	9,500MW
Biomass	810 MW
Grid-connected small hydropower	500 MW
Off-grid mini-hydropower	330MW
Wind	255MW
Solar	80MW

The GOI (Government of Indonesia) Energy Blueprint 2005-2025

Nationally Appropriate Mitigation Actions (NAMAs)

Status of NAMAs Submission

Publication Date	19 January 2010
Emission Reduction Goal	26%
Baseline year	Business As Usual

Source:

U. Hayati Triastuti. et al (2009) Indonesia Climate Change Sectoral Roadmap

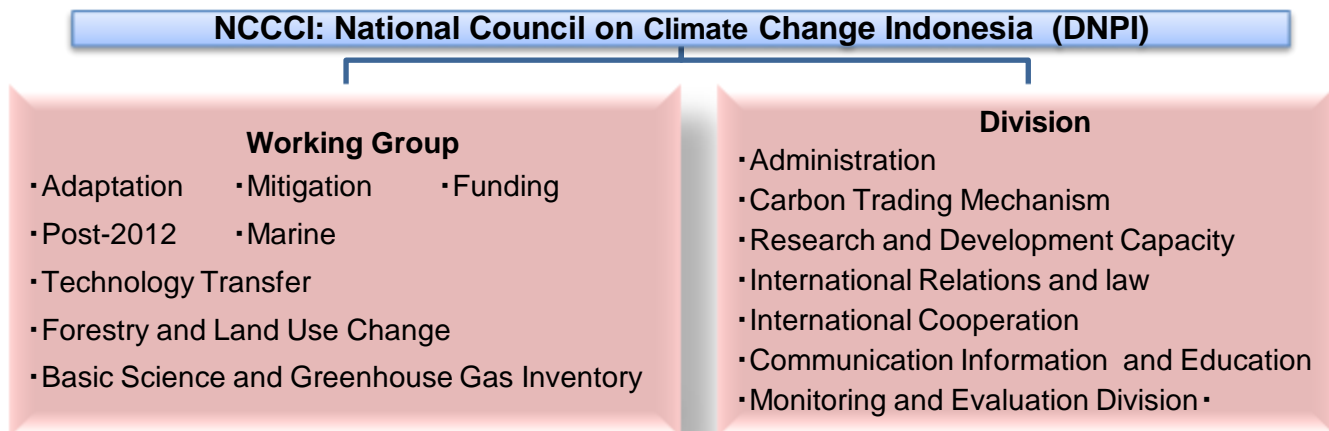
http://www.paklim.org/wp-content/uploads/downloads/2011/05/ICCSR-synthesis-report_2010.pdf

Thamrin, S. (2011) Indonesia's National Mitigation Actions: Paving the Way towards NAMAs

<http://www.oecd.org/dataoecd/52/45/48304156.pdf>

Institutional Framework

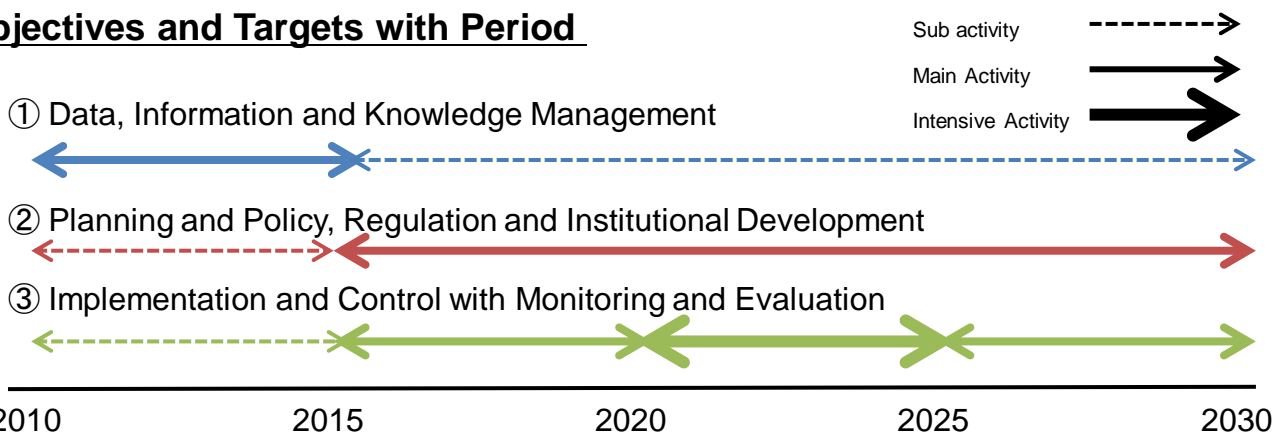
(1) Organisation Charts



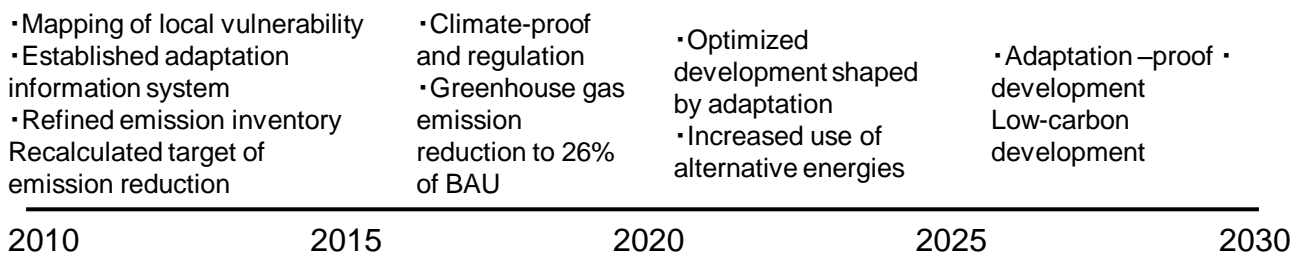
Source: DNPI Website <http://www.dnpi.go.id/>

(2) Indonesia Climate Change Sectoral Roadmap

Objectives and Targets with Period



Action Plan with Period

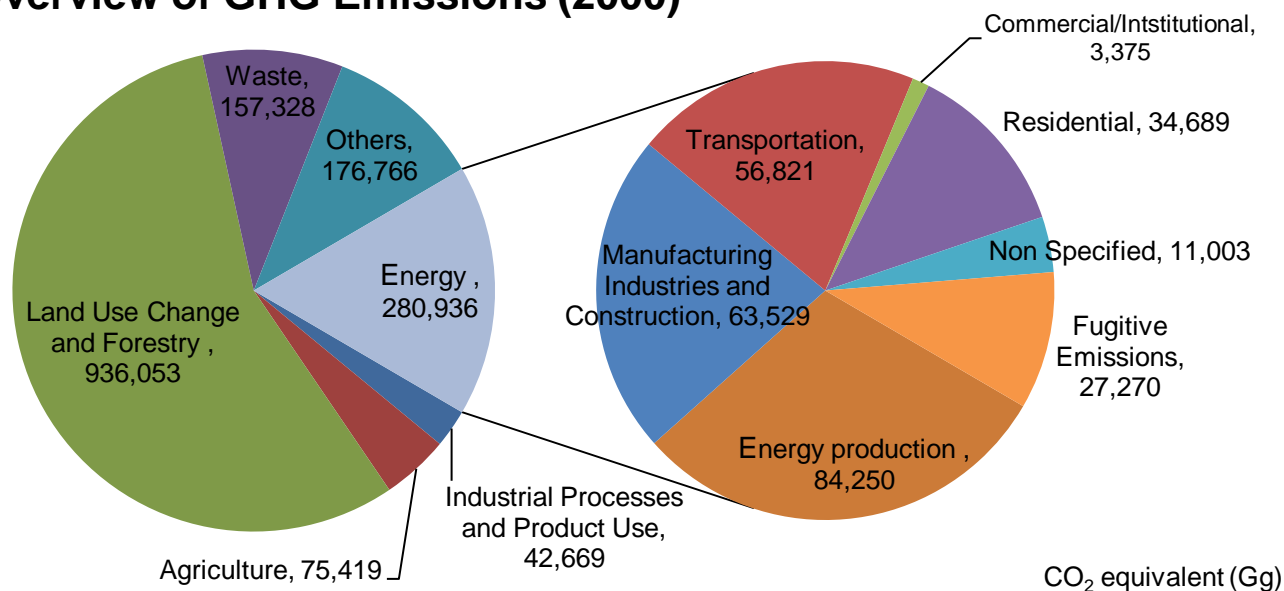


Appropriate Authorities

Ministry of Agriculture, Ministry of Energy and Resources, Ministry of Environment, Ministry of Forestry, Ministry of Industry, Ministry of Marine and Fisheries, Ministry of Public Works, Ministry of Transportation, National Development Planning Agency, Agency for Meteorology, Climate and Geophysics, National Institute of Aeronautics and Space, Research and Implementation of Technology Board, National Coordinating Agency for Survey and Mapping, Universities and Professionals

Information on GHG and NAMA

Overview of GHG Emissions (2000)



Source: Indonesia second national communication to UNFCCC

http://unfccc.int/files/national_reports/non-annex_i_natcom/submitted_natcom/application/pdf/indonesia_snc.pdf

Nationally Appropriate Mitigation Actions* (NAMAs)

Sector / Actions	Scope of Actions	Emission Reduction Target (Gg)
Forestry and peat land	Forest and land fire control, water and hydrology management on peat land, forest and land rehabilitation, illegal logging control, avoiding deforestation, community development	Without international support 672,000
		With international aid 1,039,000
Waste	Sanitary landfill development, 3 R and sewerage system in urban areas	Without international support 48,000
		With international aid 78,000
Agriculture	Introduction of low carbon rice variety, irrigation efficiency, organic fertilizer utilization	Without international support 8,000
		With international aid 11,000
Industry	Energy efficiency, renewable energy development	Without international support 1,000
		With international aid 5,000
Energy/ Transport	Bifuel development and utilization, fuel efficiency improvement, mass transportation, demand side management, renewable energy, energy efficiency	Without international support 38,000
		With international aid 56,000

*National Action Plan is under consideration to be adopted to NAMAs

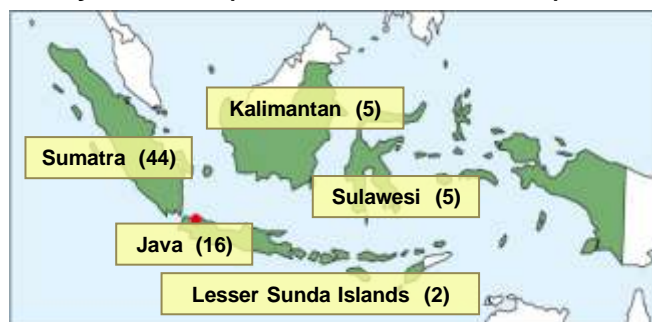
Source: Thamrin, S. (2011) Indonesia's National Mitigation Actions: Paving the Way towards NAMAs

CDM Information -Current Status of CDM in Indonesia-

Basic Information (as of 31 November 2011)

Project Status	Number of Projects
CDM projects registered at CDM executive board	72
CDM projects at the validation stage	57

The Number of Registered CDM Projects by Province (as of 31 November 2011)



Basic Data on CDM Projects (as of 31 November 2011)

Type of project	Registered CDM Projects				Review Conducted	Rejected
	N. of Projects	Average Annual Emission Reduction (tCO ₂)	Total ERs by 2012 (tCO ₂)	Amount of Issued CERs (tCO ₂)		
Biogas	25	52,712	4,991,362	58,433	1	0
Methane avoidance	9	41,393	562,153	2,110	0	0
Biomass	7	45,402	1,576,716	10,982	0	0
Methane recovery & utilization	7	62,145	1,633,158	0	0	0
Other renewable energies	5	384,015	6,665,234	1,331,037	2	0
Hydro Power	5	193,055	1,790,239	0	0	0
Fuel switch	4	100,006	992,567	17,154	0	0
Cement	4	355,874	7,192,609	187,275	0	0
Energy efficiency	3	19,311	210,727	0	0	0
N ₂ O decomposition	1	80,615	300,350	0	0	0
Waste gas/heat utilization	1	390,572	2,429,689	1,400,377	1	1
PFC reduction	1	77,977	234,123	0	0	0
Total	72	107,776*	28,578,928	3,007,368	4	1

Source: IGES CDM Project Database http://www.iges.or.jp/en/cdm/report_cdm.html UNFCCC <<http://cdm.unfccc.int/>>

* This value is not the total of average annual emission reduction of each project type, but average annual emission reduction of all the twelve project types

Summary of Barrier Analysis (Biogas Project)

Barrier	Typical Arguments for Barriers from Project Design Documents (PDDs)
Investment barrier	<ul style="list-style-type: none"> Existing system is significantly lower in capital and operating costs and also adhere to Indonesian government requirements. Proposed project does not provide the positive economic return in the absence of the CDM and Certified Emission Reductions (CER) from the proposed project will be only revenue. Technologies related biogas recovery and energy utilization in the proposed project is quite new and seen as high risk with limited performance guarantee.
Technological barrier	<ul style="list-style-type: none"> There is a need for skilled and experienced operators and the availability of such personnel locally is limited because biogas systems are still relatively rare.
Barrier due to prevailing practice	<ul style="list-style-type: none"> Despite numerous changes to maximum discharge standards over the years, the current technology is able to meet the current permitted discharge levels. The highest priority for most palm oil mills is to simply maintain compliance with local regulation.

Benchmark Rate Information on the Registered CDM Projects

Project Type	Benchmark Type	Benchmark Rate	Reference
Biogas	Interest rate	15%	Economic Report on Indonesia published by Bank of Indonesia
Biomass	• Weighted average cost of capital (WACC) • National bank rate + risk rate + Escalation rate	14.5% 20%	NA National bank rate : 15%, Risk rate : 3% Escalation rate: 2%
Methane Recovery and Utilization	• Government bond rate • Interest rate	6.75% 12.70%	Bank of Indonesia Ministry of Finance
Fuel Switch	• National Bank rate + Private bank rate • Weighted average cost of capital (WACC)	16.75% 18.67%	National bank rate: 12.75%, Private bank rate: 4% NA

Source: IGES CDM Investment analysis database < http://www.iges.or.jp/en/cdm/report_cdm.html#ia >

Designated National Authority (DNA) Information

(1) DNA Structure (revised Oct. 2009)

NC-CDM members (14 Members)

Coordinating Ministry of Economy

State Ministry of Environment

Ministry of National Development Planning / National Development Planning Agency

Ministry of Energy and Mineral Resources

Ministry of Forestry

Ministry of Industry

Ministry of Foreign Affairs

Ministry of Home Affairs

Ministry of Transportation

Ministry of Finance

Ministry of Agriculture

Agency of Technological Assessment and Implementation (BPPT)

National Land Agency (BPN)

National Council on Climate Change (NCCC)

Experts
(83 Members)

Stakeholders Forum

Technical Team (14Members)

Secretariat
(NCCC)

The Indonesian Designated National Authority is the National Commission for Clean Development Mechanism (NC-CDM). On October 2009, the new decree (No.522) regarding NC-CDM has been announced by State Ministry of Environment. Thus, the old decree (No.206) has been already invalid. Although the new DNA structure has been established and new NC-CDM members has been elected, the previous approval procedure and criteria are still used until the new DNA establishes new one..

National Commission for Clean Development Mechanism (NC-CDM)

The commission is responsible for issuing approval letters to CDM project proposals, conducting monitoring for performance of CDM project, organising meetings for technical team and providing consultation and facilitation to stakeholders, project developers, and communities. The commission submit a report for implementation of its work to the State Minister for Environment.

Secretariat

The secretariat, which is situated in the National Council on Climate Change (NCCC) is responsible for facilitating the work of NC-CDM and Technical Team.

Technical Team

The technical team evaluates project proposals by using sustainable development criteria and indicators and presents its evaluation report to the commission in order to support its decision. It may ask for inputs from the Expert Group and other Stakeholders.

Expert Group

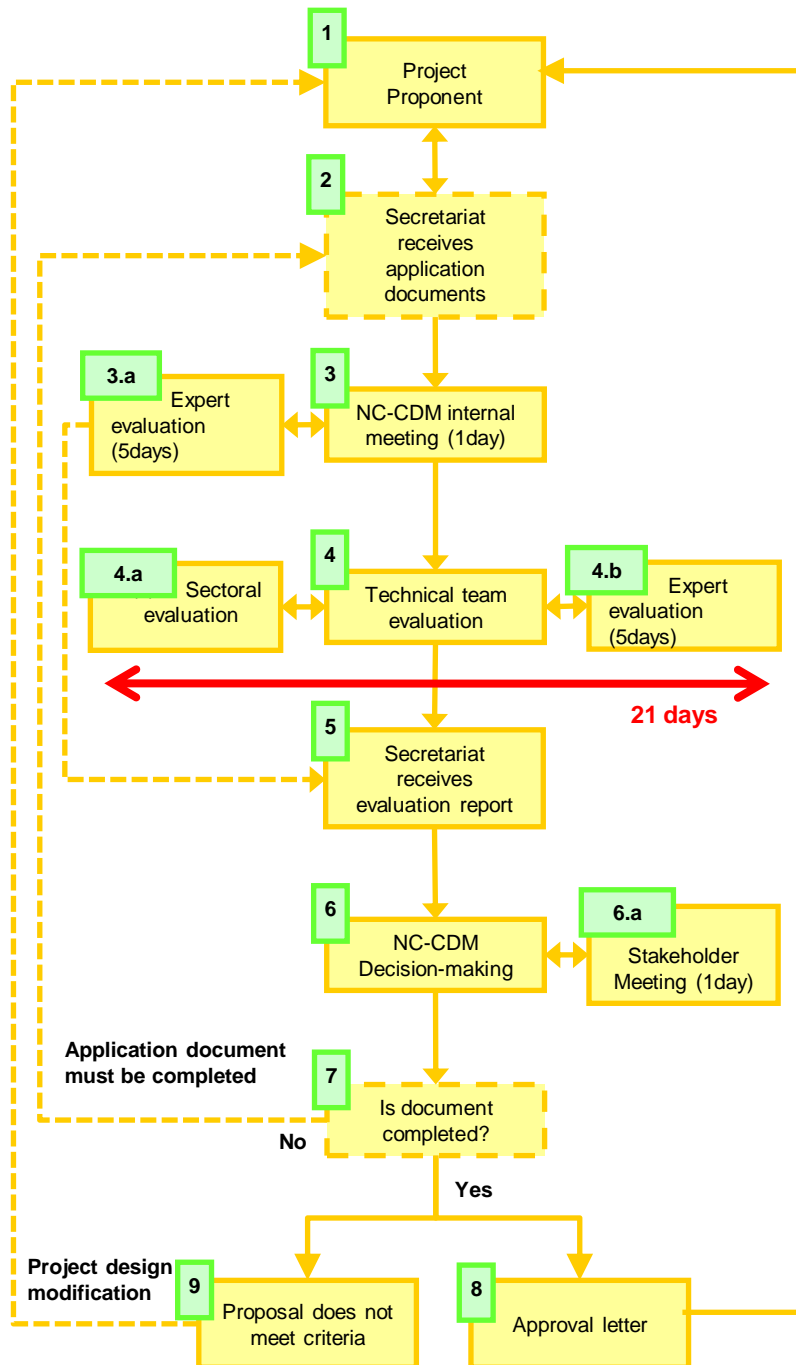
The expert group assists the Technical team if required by Technical team through the secretariat. They also provide additional evaluation on the project and a second opinion on the Technical team's evaluation.

Stakeholders Forum

Stakeholder Forum is an informative consultation forum to convey information on the proposed CDM project and accommodate comments as well as complaints on the project .

(2) DNA Approval Criteria (temporarily used)

1	Project proponent prepares application documents as follows <ul style="list-style-type: none"> •The National Approval Application Form •Project Design Document (PDD) •EIA report (where required) •Notes of public consultation; •Recommendation letter from Ministry of Forestry, only for forestry CDM project proposal •Other supporting documents to justify the project
2	The Secretariat receives the documents and check whether the application documents are completed.
3	Executive secretary submits and presents the project proposals to the NC-CDM in Internal Coordination Meeting (1day).
3.a	Additional evaluation of the project proposals based on Sustainable Development Criteria and Indicators by Experts (5days), if required.
4	The National Commission assigns members of the Technical Team to evaluate project proposals based on Sustainable Development Criteria and Indicators. (21days)
4.a	If required, Technical Team members of the same sector as the proposed project may take the application document to the Sectoral Technical Team meeting.
4.b	If required, Technical team and experts write a note on the data needed to be completed and attach it to the evaluation report to be submitted to the National Commission.
5	Submitting the Evaluation Report on project proposals to the Secretariat by the Technical Team. Evaluation Report will be posted on the National Commission website.
6	After receiving the Secretariat's report, the National Commission makes a decision whether the project proposal will be given Approval or Rejection. (This process takes one day.)
6.a	If there is any significant difference of opinion among the stakeholders, the National commission may hold a Special Stakeholder Forum. (Forum takes one day)
7	If the National commission cannot give the Approval Letter because of incomplete data in the project proposal, according to the note made by the Technical Team and experts, the project proponent is given 3 months time to prepare and resubmit the revised project proposal to the Secretariat.



Source: National Commission for Clean Development Mechanism
<http://dna-cdm.menlh.go.id/en/approval/>

8	The Secretariat submits National Commission Approval to the project proponent.
9	If the proposed project does not meet the criteria, it may be re-submitted for National Approval after modification of the project design.

(3) DNA Approval Criteria (temporarily used)

The National Commission evaluates proposed projects based on the following Sustainable Development criteria and indicators.

A. Environment

Criteria	Indicators
Environmental sustainability by practicing natural resource conservation or diversification	<ul style="list-style-type: none"> Maintain sustainability of local ecological functions Not exceeding the threshold of existing national, as well as local, environmental standards (not causing air, water and/or soil pollution) Maintaining genetic, species, and ecosystem biodiversity and not permitting any genetic pollution Complying with existing land use planning
Local community health and safety	<ul style="list-style-type: none"> Not imposing any health risk Complying with occupational health and safety regulation There is a documented procedure of adequate actions to be taken in order to prevent and manage possible accidents

B. Economy

Criteria	Indicators
Local community welfare	<ul style="list-style-type: none"> Not lowering local community's income There are adequate measures to overcome the possible impact of lowered income of community members Not lowering local public services An agreement among conflicting parties is reached, conforming to existing regulation, dealing with any lay-off problems

C. Social

Criteria	Indicators
Local community participation in the project	<ul style="list-style-type: none"> Local community has been consulted Comments and complaints from local communities are taken into consideration and responded to
Local community social integrity	<ul style="list-style-type: none"> Not triggering any conflicts among local communities

D. Technology

Criteria	Indicators
Technology transfer	<ul style="list-style-type: none"> Not causing dependencies on foreign parties in knowledge and appliance operation (transfer of know-how) Not using experimental or obsolete technologies Enhancing the capacity and utilisation of local technology

Grid emission factors (as of 31 March 2011)

*OM: Operating Margin, BM: Build Margin., CM: Combined Margin

Name of CDM Project Activity in Indonesia	OM*	BM*	Weights	CM*
Darajat Unit III Geothermal Project	0.688	0.820	0.5 : 0.5	0.754
PT Navigat Organic Energy Indonesia Integrated Solid Waste Management (GALFAD) Project in Bali, Indonesia	0.854	0.854	0.5 : 0.5	0.854
PT. BUDI ACID JAYA Tapioca Starch Production Facilities Effluent Methane Extraction And On-site Power Generation Project in Lampung Province, Republic of Indonesia	1.24	0.4	0.5 : 0.5	0.820
MEN-Tangerang 13.6MW Natural Gas Co-generation Project	0.867	0.936	0.5 : 0.5	0.901
MEN Energy Efficiency Improvement Project	0.845	0.886	0.5 : 0.5	0.865
Kabil II 11.4 MW Gas Fired Project	0.740	0.733	0.5 : 0.5	0.737
Biogas project, BAJ Unit 6	1.24	0.4	0.5 : 0.5	0.820
Biogas project, BAJ Way Jepara	1.24	0.4	0.5 : 0.5	0.820
BAJ Gunung Agung Factory tapioca starch wastewater biogas extraction and utilization project, Lampung Province,	0.906	0.581	0.5 : 0.5	0.743
Biogas project, BAJ Terbanggi	1.24	0.4	0.5 : 0.5	0.820
Lahendong II-20 MW Geothermal Project	0.32	0.72	0.5 : 0.5	0.520
BAJ Pakuan Agung Factory tapioca starch wastewater biogas extraction and utilization project, Lampung Province	0.905	0.581	0.5 : 0.5	0.743

CDM Relevant Information

Grid Emission Factor

Electricity System / Region	Emission Factor (tCO ₂ /MWh)	
	Ex-post	Ex-ante
Sumatra electricity system (2005-2007)	—	0.743
Jamali electricity system (2004-2006)	—	0.891
East Kalimantan	0.715	0.742
West Kalimantan	0.786	0.775
Central and South Kalimantan	1.280	1.273
North and Central Sulawesi Utara with Gorontalo	0.121	0.161
South, West and Southeast Sulawesi	0.267	0.269

Source: National Commission for Clean Development Mechanism <<http://dna-cdm.menlh.go.id/en/>> and National Council on Climate Change Indonesia <<http://pasarkarbon.dnpi.go.id/web/index.php/komnasmpb/cat/6/other-information.html>>

Kyoto Protocol Ratification Status

Date of signature of Climate Change Convention	5 June 1992
Date of ratification of Climate Change Convention	23 August 1994
Date of signature of Kyoto Protocol	13 July 1998
Date of ratification of Kyoto Protocol	3 December 2004
Establishment of DNA	21 July 2005
Change of DNA secretariat	30 September 2009

Source: UNFCCC <<http://maindb.unfccc.int/public/country.pl?country=ID>>

Contact Information

Indonesian DNA Secretariat

- National Council on Climate Change (NCCC)* – Indonesia
BUMN Building 18th floor, Jl. Merdeka Selatan kav. 13, Jakarta Pusat
Phone: +62-21-3511400 Fax: +62-21-3511403

*Indonesian: Dewan Nasional Perubahan Iklim (DNPI)

References

- National Council on Climate Change Indonesia
<http://www.dnpi.go.id/>, <http://pasarkarbon.dnpi.go.id/web/>
- Market Mechanism Group, Institute for Global Environmental Strategies
<http://www.iges.or.jp/en/cdm/index.html>

Kentaro Takahashi and Akihisa Kuriyama, IGES Market Mechanism Group **December 2011**

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The valuable information and comments were provided by the Climate Change Division of State Ministry of Environment, and National Council on Climate Change Indonesia. IGES would like to express its sincere appreciation for the extended cooperation of both parties in the development of Market Mechanism Country Fact Sheet for Indonesia.