

# Market Mechanism Country Fact Sheet: Cambodia

## National Climate Change Policy in Cambodia

<b>Name</b>	Cambodia's Climate Change Strategic Plan (CCCSP) (in process)
<b>Objective</b>	<ul style="list-style-type: none"> <li>To help Cambodia and its National Climate Change Committee (NCCC) to address climate change impacts in the country.</li> <li>To prepare Cambodia to take opportunities of global funding support for climate change initiatives that contribute to sustainable development and poverty reduction.</li> <li>To provide strategic guidance on how Cambodia can contribute to emission reduction, paving the way for a green-growth low-carbon development of the country.</li> </ul>
<b>Scope</b>	<ul style="list-style-type: none"> <li>Climate change and climate hazard/risk profile in the country;</li> <li>Policy response to climate change according to Cambodia position and priorities in accordance with regional and international frameworks on climate change.</li> <li>Adaptation: primarily focusing on priority sectors and sub-sectors such as agriculture, water resources, fisheries, forest, human health, coastal zone, biodiversity, protected areas, and their key policy responses.</li> <li>Mitigation: focusing on energy and non-energy sectors to support green growth development.</li> </ul>

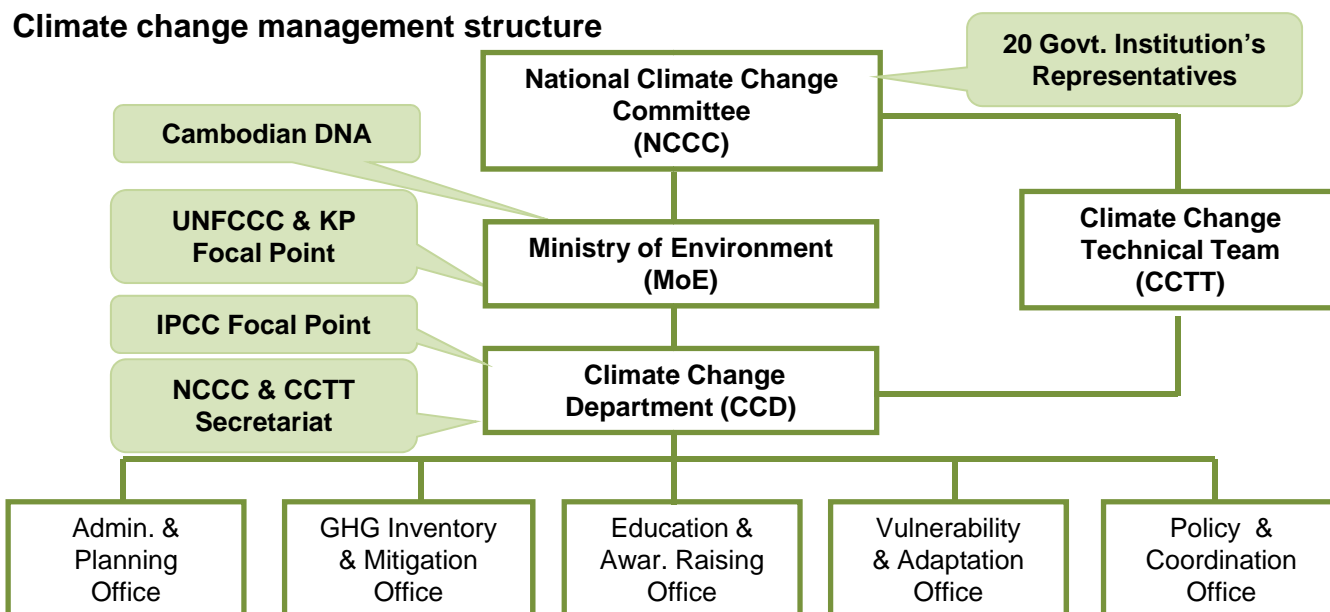
Source: Climate Change Department (CCD), Ministry of Environment, Cambodia (MoE)

### Recent Activities in Cambodia

Event	Date	Venue
The First National Forum on Climate Change	19-21 Oct. 2009	Phnom Penh
The Second National Forum on Climate Change	3 – 5 Oct. 2011	Phnom Penh

## Institutional Framework - Organisation Charts

### Climate change management structure



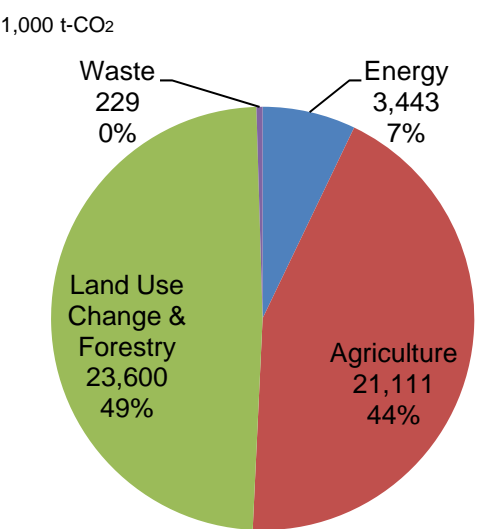
Source: CCD, MoE

- The Climate Change Department (CCD) under the Ministry of Environment (MoE), Cambodia has broader responsibilities with its mission to contribute to sustainable development under the climate change conditions and in accordance with the policy of the government of Cambodia.
- The National Climate Change Committee (NCCC), the inter-ministerial level, was established in April 2006 with the mandate to prepare, coordinate and monitor the implementation of policies, strategies, legal instruments, plans and programmes of the government to address climate change issues. NCCC is hosted by MoE and coordinated by the CCD.

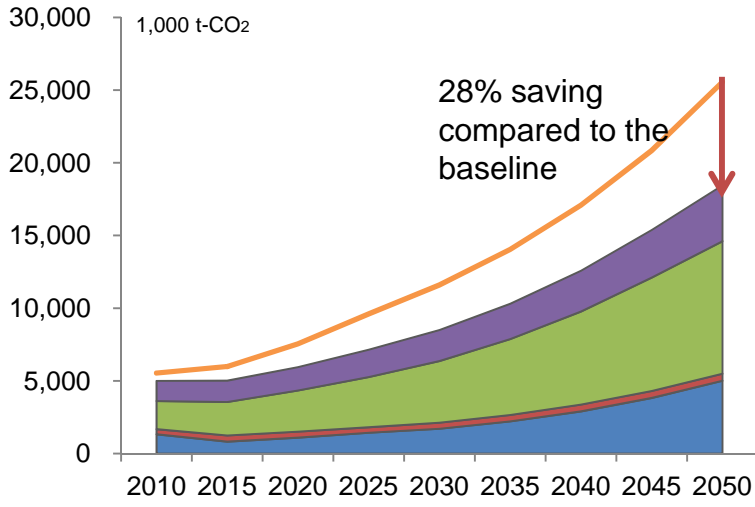
Source: CCD, MoE

# GHG Emissions

## GHG Emissions by Sector (2000)



## Potential Savings by all Mitigation Options



GHG emissions scenario with all mitigation options

- Other Sectors
- Transport Sector
- Manufacturing Industries
- Energy Industries
- Baseline scenario

Source: CCD, MoE

# Mitigation Actions

## Mitigation options

Energy Industries	Manufacturing Industries	Transport Sector
<ul style="list-style-type: none"> <li>• Grid connection rural electricity entrepreneurs</li> <li>• Grid connection auto producers</li> <li>• Grid connection battery charging stations</li> <li>• Solar power plant</li> <li>• Solar home systems</li> <li>• Pico, mini and micro hydro</li> <li>• Rice husks for electricity generation</li> <li>• Energy efficiency end users</li> <li>• Energy efficient buildings</li> <li>• Methane emissions reduction from hydro dams</li> </ul>	<ul style="list-style-type: none"> <li>• Rice milling, garment and brick works</li> <li>• Organic waste methane recovery</li> <li>• Rice husk briquettes</li> <li>• Efficient charcoal production</li> <li>• Landfill gas recovery</li> <li>• Cement production heat recovery</li> <li>• Biofuel</li> </ul>	<ul style="list-style-type: none"> <li>• Hybrid cars</li> <li>• Motor vehicle inspection</li> <li>• Electric scooters and bicycles</li> <li>• Short lunch to reduce ½ the house to work travel</li> <li>• City transport master plan</li> <li>• Public city transport</li> </ul>
		Other Sectors
		<ul style="list-style-type: none"> <li>• Efficient cook stoves</li> <li>• Biodigesters</li> <li>• Water filters</li> <li>• Solar lanterns</li> <li>• Tree planting for cooking fuel</li> <li>• Wind water pumping</li> </ul>

Source: CCD, MoE

# Current Status of CDM in Cambodia

## Basic Information

Project Status	No.
CERs issued	1
Registered	6
Under validation	4
Approved by Cambodia's DNA	10
Under CDM loan scheme	1

Source: CCD, MoE

IGES CDM Project Database (as of 1 November 2012) <http://www.iges.or.jp/en/cdm/report.html>

Annual report of the Executive Board of the clean development mechanism to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, 2012, UNFCCC

## DNA Approval and CDM Registration Status

Name of CDM Project Activity	Type of Project	Supplemental Information	Approval Date (D/M/Y)	Annual emission reduction (t-CO <sub>2</sub> /yr)	Project Participants (Host Country)	Project Participants (Others)	Status
Angkor Bio Cogen Rice Husk Power Project	Biomass	Rice husk	19/1/2006	51,620	Angkor Bio Cogen Co., Ltd.	Mitsubishi UFJ Securities Co., Ltd.	Registered
T.T.Y. Cambodia Biogas Project	Biogas	Agricultural Waste	4/7/2007	50,036	T.T.Y Agricultural Plant Development and IMEX Co. Ltd; Carbon Bridge Pte Ltd	None	Registered
Methane fired power generation plant in Samrong Thom Animal Husbandry,	Biogas	Animal Waste	15/10/2007	5,593	Samrong Thom Animal Husbandry	Mitsubishi UFJ Securities Co., Ltd.	Registered
Kampot Cement Waste Heat Power Generation Project (KCC-WHG)	Waste heat/gas utilisation	Cement production line	20/11/2008	17,107	Kampot Cement Company Co., Ltd.	None	Registered
Biogas Project at MH Bio-ethanol Distillery, Cambodia	Biogas	Agricultural Waste	29/6/2009	58,146	MH Bio-Energy Co., Ltd	None	Registered
W2E Siang Phong Biogas Project Cambodia	Biogas	Agricultural Waste	03/11/2010	26,592	W2E Siang Phong Ltd	None	Registered
Lower Stung Russei Chrum Hydro-Electric Project	Hydro	New reservoir	02/11/2011	701,199	China Huadian Lower Stung Russei Chrum Hydro-Electric Project (Cambodia) Co., Ltd.	Vitol S.A.	Under validation
Cambodia Stung Atay Hydropower Project	Hydro	New reservoir	03/01/2012	266,472	C.H.D (Cambodia) Hydropower	Gazprom Marketing & Trading Singapore Pte. Ltd.	Under validation
Kamchay Hydroelectric BOT Project	Hydro	New reservoir	20/11/2008	281,348	Sinohydro Kamchay Hydroelectric Project Co., Ltd.	CF Carbon Fund II Ltd.	Under validation
Stung Tatay Hydroelectric Project	Hydro	New reservoir	16/01/2012	563,074	Cambodian Tatay Hydropower Ltd.	Gazprom Marketing & Trading Singapore Pte. Ltd.	Under validation

Source: CCD, MoE

IGES CDM Project Database (as of 1 November 2012) <http://www.iges.or.jp/en/cdm/report.html>

## Proposal of Standardized Baseline

Title	Sector	Developer	Submitted date	Status
Standardized baseline of energy use in rice mill sector of Cambodia	Rice mill	IGES	27/9/2012	Initial assessment successfully concluded

Source: UNFCCC [http://cdm.unfccc.int/methodologies/standard\\_base/index.html](http://cdm.unfccc.int/methodologies/standard_base/index.html)

# Designated National Authority (DNA)

## (1) DNA Structure

**DNA Board**

Policy makers (at least at the level of the Undersecretary of State) for the Board Members

- Ministry of Environment (MoE)
- Ministry of Agriculture, Forestry and Fisheries (MAFF)
- Ministry of Industry, Mines and Energy (MIME)
- Ministry of Planning (MoP)
- Council for the Development of Cambodia (CDC)
- Ministry of Public Works and Transport (MPWT)

**DNA Secretariat**

The Cambodian Climate Change Department (CCD) of the MoE acts as the DNA Secretariat.

**Technical Inter-ministerial Working Group**

**The energy technical working group**

- Representatives from MIME (renewable energy, planning and hydroelectricity)
- Representatives from MOE (CCD, environment impact assessment, and one other relevant department)
- Representative from the Royal University of Phnom Penh (RUPP)
- Representative from the Royal University of Agriculture (RUA)
- Representative from the Institut de Technologie du Cambodge
- Representative from the MPWT.

- The chair is the Minister of Environment and the vice-chair is elected from either MAFF or MIME.
- The Board evaluates proposed CDM projects submitted to Cambodia's DNA to determine whether the projects are to be approved or rejected. A proposed CDM project requires the approval of each member and also an approval letter that will be issued with the signature from the chair of the Board.

- The Secretariat receives project applications and checks if the Project Design Document (PDD) and other application documents are complete.
- Assessment using the sustainable development criteria will not be conducted by the Secretariat who are not allowed to ask for the re-submission of the project documents or to reject the project, based on such assessment.
- The Secretariat coordinates working groups, that assess the PDDs, and asks for the project participants to submit further information, if necessary. The Secretariat may also request domestic or international technical experts for assessment of the PDDs.

- The technical working group assesses the PDDs based on the sustainable development criteria.
- After an assessment, the technical working group submits a Project Technical Assessment Report to the DNA secretariat.

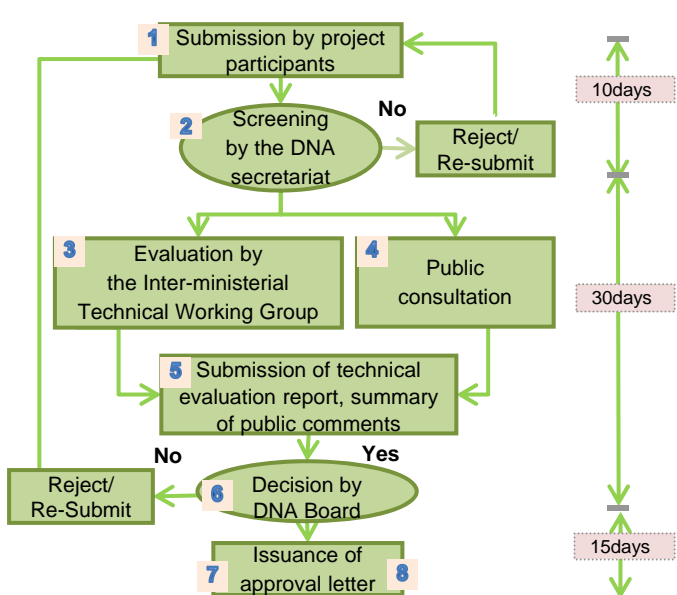
**The Forestry Technical Working Group**

- Representatives from MAFF (Forest Administration, agronomy, planning)
- Representatives from MoE (CCD, environment impact assessment, natural conservation, one other relevant department),
- Representative from the RUPP
- Representative from the RUA
- \* MIME and other relevant ministries are also invited, if necessary.

Source: CCD, MoE <http://www.camclimate.org.kh/>

## (2) DNA Approval Procedure

- The application form is provided by Cambodia's DNA and required application documents should be submitted to the DNA Secretariat. The application documents are as follows:
  - Documents to be submitted (mandatory):
    - Completed application form (downloadable from the CCD web-site)
    - PDD (Project Design Document)
    - Sustainable Development Compliance Checklist (downloadable from the CCD web-site)
    - Section A2 of the PDD (Description of the project activity) written in Khmer
  - Documents to be submitted (optional):
    - Environment Impact Assessment (EIA) Report
    - Stakeholders Consultation Report
    - Environment Management Planning Report
    - Approval letter for project investment, etc.
- The DNA Secretariat checks if the submitted documents are complete (10 days). After screening, the Secretariat notifies the 1<sup>st</sup> meeting of an inter-ministerial technical working group, sends the PDD, and conducts public consultation.
- The inter-ministerial technical working group assesses the PDD and holds the meeting.
- After the 1<sup>st</sup> meeting, the working group prepares the Project Technical Assessment Report (within 10 days). After preparing the report, the 2<sup>nd</sup> meeting will be held. The public consultation will be ended.
- The DNA Secretariat prepares a final evaluation report for DNA Board members (within 10 days). After submitting the report, a DNA Board meeting will be organised.



- Each board member assesses the final evaluation report (within 10 days). After 10 days, a Board meeting is organised again and makes the final decision.
- An approval letter or notification of rejection is prepared (within five days).
- An approval letter is issued to project participants (total 45 days for issuance).

Source: CCD, MoE <http://www.camclimate.org.kh/index.php?page=searchdocument&docid=b31>

### (3) DNA Approval Criteria

A sustainable development matrix is used for the assessment of a project's contribution towards sustainable development. An inter-ministerial technical working group evaluates a proposed CDM project based on the sustainable development compliance checklist and PDD prepared by project participants. Evaluation criteria are classified into four groups: economic, social, environmental, and technology transfer and each indicator is evaluated according to three ratings: positive, neutral, or negative. No project is allowed to receive negative points at any indicators. If a project receives a negative point, it has to reconsider the design to satisfy the criterion and re-apply. The criteria are as follows:

Eligibility Criteria	Indicator for Assessment	Legislation and Policy Reference Table*
<b>Category 1: Environmental Protection and Improvement</b>		
1.1 Contribution to mitigation of global climate change	Change of GHG emissions	• Cambodia's National Communication under the UNFCCC
1.2 Reduction in air pollution	Change of air pollutant levels (Comparison with baseline scenario in the PDD)	• Sub-decree on Air Pollution Control and Noise Disturbance
1.3 Reduction in water pollution	Change of water pollutant levels (Comparison with baseline scenario in the PDDs)	• Sub-decree on Water Pollution Control • Strategic Plan on Water Resources Management and Development 2004-2008
1.4 Reduction in soil pollution	Change of soil pollutant levels (Comparison with baseline scenario in the PDDs)	• Sub-decree on Solid Waste Management
1.5 Reduction in noise pollution	Change of noise levels (Comparison with baseline scenario in the PDDs)	• Sub-decree on Air Pollution and Noise Disturbance
1.6 Biodiversity conservation	Impact on indigenous biodiversity resources at the ecosystem, species and/or genetic levels	• Draft Protected Areas Law • Royal decree on the Creation and Designation of Protected Areas
1.7 Sustainable use of land resources	Impact on land resources	• Draft Protected Areas Law • Royal decree on the Creation and Designation of Protected Areas
1.8 Rationale use of mineral resources	Rational use of mineral resources	• Law on Mineral Management and Exploration
1.9 Sustainable use of forest resources	Impacts on forest resources Management/implementation plan in place to mitigate the impacts	• Forestry Law • Community Forestry Sub-decree
1.10 Sustainable use of water resources	Impacts on water resources Management/implementation plan in place to mitigate the impacts	• Sub-decree on Water Pollution Control • Strategic Plan on Water Resources Management and Development 2004-2008
1.11 Archaeological, cultural, historical and spiritual heritage	Impacts on archaeological, cultural, historical and spiritual heritage	• Draft Protected Areas Law
<b>Category 2: Social – Enhancement of Income and Quality of Life</b>		
2.1 Poverty alleviation	Impacts on livelihoods of local people	• National Poverty Reduction Strategy 2003-2005 • Cambodian Millennium Development Goals 2003
2.2 Provision of community infrastructures	Impacts on community infrastructure	• Second Five-Year Socioeconomic Development Plan
2.3 Stakeholder consultation	Stakeholders were consulted and minimal impact identified	
2.4 Access to community assets	Change in access for the target communities to community assets	• Sub-decree on Community Fisheries • Sub-decree on Social Land Concessions
2.5 Equity in accessing the community benefits of the project for the target Communities	Equitable access for the target communities to the community benefits of the project	• Sub-decree on Community Fisheries • Sub-decree on Social Land Concessions
2.6 Creation of employment in country	Change in employment compared to the baseline; no jobs are created or lost	• Labor Law
2.7 Impact on public health	Impact on public health	
2.8 Gender equity	Change in gender equity and women empowerment	• Cambodian Millennium Development Goals 2003
<b>Category 3: Technology Transfer</b>		
3.1 Transfer of appropriate and best available technology	- best available technology and technology well proven - best available technology and technology can easily be maintained locally - best available technology and technology appropriate for local economic and social conditions	• Cambodian Millennium Development Goals 2003 • Second Five-Year Socioeconomic Development Plan
3.2 Capacity building	- transfer of skills for use and maintenance of technology/equipment - use of local companies to install and maintain equipment - training of local technicians in areas of expertise not available in	• Cambodian Millennium Development Goals 2003 • Second Five-Year Socioeconomic Development Plan
<b>Category 4: Economic Benefits</b>		
4.1 Use of local business and industries	Use of local businesses and industries	• National Poverty Reduction Strategy 2003-2005 • Cambodian Millennium Development Goals 2003
4.2 Share of project budget spent in country	Proportion of total budget spent in country on Cambodian economy	• Investment Law
4.3 Reduced dependence on fossil fuels (energy projects only)	Frequent use of clean energy Dependence on fossil fuels	• Renewable Energy Action Plan • Cambodian Millennium Development Goals 2003
4.4 Reduced dependence on imported energy	Dependence on imported energy.	• Renewable Energy Action Plan • Cambodian Millennium Development Goals 2003

Source: CCD, MoE. <http://www.camclimate.org.kh/index.php?page=searchdocument&docid=b35>

\* Legislation is not fully listed from the original document. Measure legislation is only selected.

# CDM Relevant Information

## Kyoto Protocol Ratification Status

Ratification of the Climate Change Convention	13 December 1995
Ratification of the Kyoto Protocol	04 July 2002
Establishment of the Climate Change Office (CCCO) at the Ministry of Environment	23 June 2003
Appointment of the Ministry of Environment as interim DNA	15 July 2003
Establishment of the National Climate Change Committee	24 April 2006
The 4 <sup>th</sup> Meeting of the National Climate Change Committee	29 June 2009
Establishment of the Climate Change Department	14 October 2009

## UNFCCC Related Works

Cambodia's First National Communication	August 2002
Cambodia's National Adaptation Programme of Action to Climate Change	October 2006

Source:

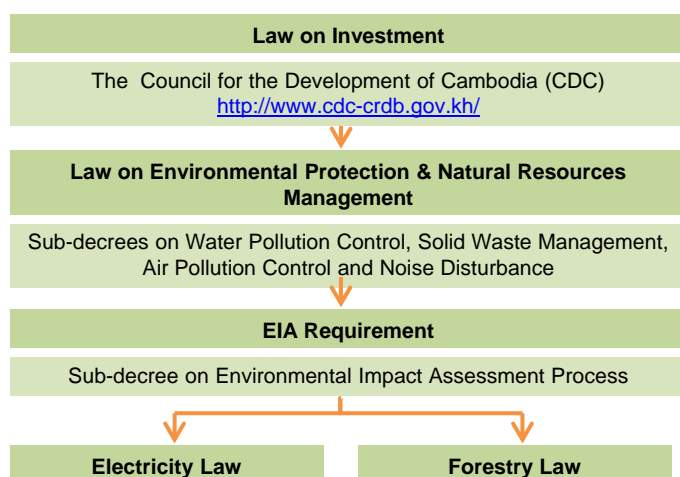
UNFCCC website

<http://maindb.unfccc.int/public/country.pl?country=KH>

CCD, MoE

<http://www.camclimate.org.kh/index.php?page=searchdocument&docid=b25>

## Laws and Regulation to Apply for CDM Investment



Source: CCD, MoE <http://www.camclimate.org.kh/index.php?page=searchdocument&docid=b25/>

## List of Example Cases Required for EIA

\* Referred only relevant projects for CDM

Projects	Production Capacity
Rice mill and cereal grains	More than 3,000 t/year
Rubber factories	More than 1,000 t/year
Chemical fertilizer plants	More than 1,000 t/year
Cement industry, oil refinery, gas factory	All projects
Waste disposal plants	All projects
Wastewater treatment plants	All projects
Mining	All projects
Power Plants	More than 5MW
Hydro power projects	More than 1MW
Agriculture and agro-industrial land	More than 10,000 ha

## Cambodia's Regional Grid emissions Factors for 2010 (t-CO<sub>2</sub>/MWh)

Regional Grid	Covered Region	OM	BM
Phnom Penh Grid	Phnom Penh, parts of Kandal, Kampong Speu and Takeo Provinces	0.6257	0.6878

Source: CCD, MoE <http://www.camclimate.org.kh/index.php?page=documentation&mcat=cat47&scat=cat50&lang=en>

### Contact Information

#### Cambodia's DNA

Ministry of Environment, Climate Change Department  
48, Samdech Preah, Sihanouk Bld, Phnom Penh, Cambodia  
Phone: (855-23)218-370 Fax: (855-23)218-370  
E-mail: [ETAP@online.com.kh](mailto:ETAP@online.com.kh), [cceap@online.com.kh](mailto:cceap@online.com.kh)

#### References

- Climate Change Department for Cambodia DNA information <http://www.camclimate.org.kh/>
- Market Mechanism Group, Institute for Global Environmental Strategies <http://www.iges.or.jp/en/cdm/cambodia.html>

### Acknowledgement

The valuable information and comments, especially for CDM projects in Cambodia, were provided by the Department of Climate Change of the Ministry of Environment, Cambodia. IGES would like to express sincere gratitude for its invaluable support in making this Market Mechanism Country Fact Sheets for Cambodia.