COUNTRY PAPER:

DOMINICAN REPUBLIC

Project: Energy and Climate Change

PHASE IV: DEVELOPMENT OF CASE STUDIES AND CAPACITY STRENGTHENING FOR THE CDM

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ACRONYMS

CIDA	Canadian International Development Agency
AIJ	Activities Implemented Jointly
DNA	Designated National Authority
CER	Certificate of Emissions Reduction
UNFCCC	United Nations Framework Convention on Climate Change
SD	Sustainable Development
EIA	Environmental Impact Assessment
DOE	Designated Operational Entity
ERPA	Emission Reduction Purchase Agreement
GHG	Green–House Gases
EB	CDM Executive Board
CDM	Clean Development Mechanism
PDD	Project Design Document
PIN	Project Idea Note

Executive Summary

The following paper was developed as part of the activities implemented during Phase IV of the Climate Change Initiative of the Sustainable Energy Programme developed jointly by the Latin American Energy Organization (OLADE) and the University of Calgary, with financial support from the Canadian International Development Agency (CIDA).

The goal of this Initiative is capacity building for OLADE's member countries to participate in the Clean Development Mechanism (CDM) by providing up–to–date information on CDM procedures and activities, reviewing CDM activities at country and regional levels, and implementing training activities for technical and institutional strengthening.

This paper pertains to the Dominican Republic Case Study and seeks to provide its CDM DNA and other national stakeholders with a study on the status of national involvement in the mechanism and a few useful tools and data to enhance their ability to participate in developing projects that contribute to sustainable development.

This paper describes the current institutional situation relating to the CDM in the Dominican Republic and includes a description of the institutional framework to direct and implement the CDM as of the execution of Presidential Decree No. 601–08. This officially established the National Climate Change and CDM Council, the role and duties of both the National Climate Change Office and the National CDM Office, and a description of the national evaluation and approval criteria for CDM projects that the country has been explicitly considering for national CDM project approval. Although the operational regulations for these offices is still unavailable, we can say that the country and the national authorities of these newly–created offices have the right tools to develop such processes, i.e., a proposed set of procedures and criteria and the help of institutional strengthening through the support of various international cooperation projects and programmes.

Subsequently, this case study centres on assessing the CDM project portfolio in Dominican Republic, and presents orderly details on projects that are already in the CDM development cycle and other projects that were identified within the country, including an interesting number of CDM programmes of activities that were detected while implementing technical assistance activities. Here we conclude that Dominican Republic has an interesting potential for CDM projects and programmes of activities that should be supported and strengthened in the near future. On the short term, the portfolio of CDM projects in the pipeline represents a potential of 1.9 million tCO_{2e} per year, and the potential midterm portfolio may come to represent nearly 1.5 million additional tCO_{2e} per year. This shows that the contribution of the CDM to the country's sustainable development is very significant, primarily in sectors such as power generation, fuel substitution, efficient energy use, wastewater management from agro–industry and livestock production, and in other sectors of great importance.

It presents an update of the technical assistance provided during project execution in the country, which consisted of planning and holding a National CDM Workshop on September 10–11, 2008, with the dual interest of a brush–up session on international and local CDM development and a session to address matters of capacity building for the Programmatic CDM. There was a combined attendance of 100 participants in the two sessions. Part of the work focused on detecting potential POA coordinating entities, for which a personalized support session was able to receive 15 organizations and firms with an interest in the Programmatic CDM, which produced programme ideas that are currently being followed up on by the country's DNA.

It includes the outcomes of the help given to draw up two CDM Project Idea Notes, developed with support and input from the country's DNA, in order to provide support and follow–up for project developers interested in advancing their project concepts.

The PINs that were developed include:

1. Composting empty bunches of African palm and using waste process water in *Induspalma Dominicana* with a yearly emissions reduction target of 12,250 tCO_{2e} / year.

2. Programme of Activities (POA) for methane capture and its application on pig farms for self–consumption, coordinated by Aporli, with a yearly emissions reduction target of 109,087 tCO_{2e}.

We conclude that the country has a very interesting potential for the CDM and to achieve sustainable development synergies by using mechanisms such as the CDM. However, its development is too late for the first compliance period, and the national authorities should closely follow the post–Kyoto negotiations in an attempt to insert this project development into the framework of positioning trends, whether programmatic or sectoral in nature.

1. Introduction

This paper was developed as part of the activities implemented during Phase IV of the Climate Change Initiative of the Sustainable Energy Project currently being developed by the Latin American Energy Organization (OLADE) and the University of Calgary, with financial support from the Canadian International Development Agency (CIDA).

The goal of this Initiative is capacity building for OLADE's member countries to participate in the Clean Development Mechanism (CDM) by providing up–to–date information on CDM procedures and activities, reviewing CDM activities at country and regional levels, and implementing training activities for technical and institutional strengthening.

This fourth phase builds on information gathered during earlier phases of the Initiative, including a regional and international assessment of the CDM status and specific technical assistance for various countries on matters relating to national approval procedures, project portfolio assessment, help for drawing up Project Idea Notes, and training.

The expected outcomes of Phase IV are:

- Country–level case studies in two more OLADE member countries (Barbados and Dominican Republic) to deepen the study of institution and project development in each country, identify capacity–building needs, and recommend actions and best practices to be implemented in order to bolster the capacity to participate in the mechanism. Furthermore, technical assistance has been provided for two other countries (Nicaragua and El Salvador) in matters relating to training in Programmatic CDM subjects and targeted support for project developers in moving Project Idea Note development to projects with CDM potential.
- Country–level training and capacity–building workshops: based on the technical and institutional requirements that were identified.
- Lessons Learned Papers: with a summary of lessons learned as found in the process of implementing CDM actions and identifying possible considerations for developing a strategy to improve national involvement in the mechanism, with special reference to topics for developing CDM Programmes of Activities.

This paper pertains to the Dominican Republic country study and seeks to provide its CDM National Authority and other stakeholders, with a study of the status of national involvement in the mechanism and a few useful tools and data to enhance their ability to participate in developing projects that contribute to sustainable development.

The first part of the paper describes the status of CDM institutional development in the Dominican Republic, including a brief summary of the background of National Authority designation, the role and duties it currently performs, and the current procedure used in the country for CDM project approval. It also presents the legal framework that was recently established through Decree 601–08, which created the National Climate Change and CDM Council, by which the country has given great importance to the matter of climate change within the framework of national policy decision–making processes and international participation.

The third chapter of this paper focuses on describing and valuing the CDM Project Portfolio and presents the types, sizes and status of different projects, thereby helping to determine their potential and identify possible target sectors for CDM project development work.

Chapter IV presents the main progress made and results achieved with the technical assistance provided throughout this project, the National CDM Workshop that helped catch up on subjects relating to the carbon market, and work on the subject of CDM Programmes of Activities, which identified at least 15 potential POAs and their development coordination entities. It also includes the technical work done to develop two CDM Project Idea Notes that were drawn up in support of specific project developers, including the African palm industry and the pig sector in the country.

2. CDM Institutional Arrangements in the Dominican Republic

2.1. Background

The Dominican Republic ratified its participation in the United Nations Framework Convention on Climate Change as of 07/10/98, and ratified the Kyoto Protocol on 12/02/02.

Presidential Decree No. 786–04 of August 9, 2004, created the Climate Change and CDM offices as administrative units under the Ministry of the Environment and Natural Resources, based at the Under–Secretariat of Environmental Management. This decree established the guidelines for organizing these offices and organized an Inter–Institutional Board of Directors consisting of a broad selection of national stakeholders. Additionally, this decree set up the so–called Carbon Account, based on the provisions of Decree No. 64–00 of the General Environment and Natural Resource Act, for the purpose of channelling national revenues towards supporting climate change work and CDM project development.

The country's CDM institutions worked within the framework of the structure created via Decree No. 786–04 for many years, until changes were made in 2008 through a new Presidential Decree.

The institutional structure for climate change and the Clean Development Mechanism was dictated by Presidential Decree No. 601–08, signed on September 20, 2008, called the "Decree creating the National Climate Change and CDM Council"; and by Decree No. 582–08 that designated the officials assigned to the different structures created by Decree No. 601–08.

2.2. Decrees creating the National Climate Change and CDM Council

As mentioned above, there have recently been significant changes in the national norms relating to climate change.

2.2.1. Decree No. 601–08[1]: "Decree Creating the National Climate Change and CDM Council"

The following pages include a textual copy of Decree No. 601–08 from the PDF file received during the technical visit to the country in late 2008.

[1] The original file of Decree No. 601–08 is in Acrobat Reader, so it was not possible to present it in Word format in this paper.

Leonel Fernández
Presidente de la República Dominicana

Núm : 601-08

DECRETO QUE CREA EL CONSEJO NACIONAL PARA EL CAMBIO CLIMATICO Y MECANISMO DE DESARROLLO LIMPIO

CONSIDERANDO: Que la Ley General Sobre Medio Ambiente y Recursos Naturales No. 64-00, del 18 de Agosto del 2000, que crea la Secretaría de Estado de Medio Ambiente y Recursos Naturales, fomenta el establecimiento de políticas y normas que permitan la conservación, manejo y uso racional del medio ambiente y los recursos naturales, para el beneficio de la generaciones presentes y futuras.

CONSIDERANDO: Que la República Dominicana es parte del Protocolo de Kyoto de la Convención Marco de la Naciones Unidas sobre Cambio Climático, y, brindándole esta situación la oportunidad de acceder y beneficiarse del mercado de reducción de emisiones ya sea por medio de las fuentes y/o vía los sumideros (bosques), a través del Mecanismo de Desarrollo Limpio (MDL), debiendo, por tanto, disponer de dos entidades nacionales operativas debidamente estructuradas y facultadas para tales propósitos;

CONSIDERANDO: Que la República Dominicana, mediante la Resolución 59-92, del 18 de diciembre del 1992, ratificó la Convención de Viena sobre Protección de la Capa de Ozono y el Protocolo de Montreal, relativo a las Sustancias que Agotan Capa de Ozono;

CONSIDERANDO: Que los gases que destruyen la Capa de Ozono y que, a su vez, poseen un elevado potencial de efecto invernadero, están regulados por el Protocolo de Montreal. No obstante, estos gases están excluidos del Protocolo de Kyoto, que es el que regula los gases de efecto invernadero.

CONSIDERANDO: Que existen ventajas competitivas del potencial que posee la República Dominicana para proyectos de reducción de emisiones a través de la eficiencia energética, la eficiencia industrial con las micro y

mediana empresas, la energía renovable, la aforestación y la reforestación, cambio en el uso del suelo y protección de cuencas hidrográficas.

VISTO: El Decreto 356-99 que crea el Comité Gubernamental de Ozono (COGO) para que ejecute el Programa para la Reducción del Consumo de Sustancias que Agotan la Capa de Ozono.

VISTO: El Decreto No. 786-04 que crea La Oficina Nacional de Cambio Climático y Mecanismo Desarrollo Limpio.

En ejercicio de las atribuciones que me confiere el Articulo 55 de la Constitución de la República, dicto el siguiente:

D E C R E T O:

ARTÍCULO 1.- Se crea el Consejo Nacional para el Cambio Climático y Mecanismo de Desarrollo Limpio, el cual estará integrado por:

1. El Presidente de la República, quién lo presidirá;
2. El Secretario de Estado de Medio Ambiente y Recursos Naturales, quién fungirá como Secretario del Consejo;
3. El Secretario de Estado de Economía, Planificación y Desarrollo;
4. El Secretario de Estado de Agricultura;
5. El Secretario de Estado de Relaciones Exteriores;
6. El Secretario de Estado de Hacienda;
7. El Secretario de Estado de Industria y Comercio;
8. El Secretario de Estado de Salud Pública y Asistencia Social;
9. El Gobernador del Banco Central de la República Dominicana;
10. La Comisión Nacional de Energía;
11. El Superintendente de Electricidad; y
12. El Vicepresidente de la Corporación de Empresas Eléctricas Estatales.

PÁRRAFO I: El Poder Ejecutivo designará mediante decreto al Vicepresidente Ejecutivo del Consejo Nacional para el Cambio Climático y Mecanismo de Desarrollo Limpio, con rango de Secretario de Estado.

PÁRRAFO II: En los casos que corresponda en función de la agenda del día, el Consejo podrá invitar a participar de sus sesiones de trabajo, en calidad de invitados, a las personas físicas y morales que entienda pertinente, entre ellas a las siguientes:

a) El presidente de la Asociación de Bancos de la República Dominicana;

b) El presidente de la Asociación de Industrias de la República Dominicana;

c) El presidente de los Generadores Privados del Sector Energético Nacional;

d) El presidente del Consejo Nacional de la Empresa Privada (CONEP);

e) El Director de la Oficina para el Reordenamiento del Transporte (OPRET).

PÁRRAFO III: El Vicepresidente Ejecutivo del Consejo Nacional para el Cambio Climático y Mecanismo de Desarrollo Limpio, también fungirá como el Presidente del Comité Gubernamental de Ozono (COGO).

ARTÍCULO 2.- Se crean las Oficinas Nacionales de Cambio Climático, en lo adelante ONCC, y la de Mecanismo de Desarrollo Limpio, en lo adelante ONMDL, como unidades administrativas, bajo la dependencia de la Vicepresidencia Ejecutiva del Consejo Nacional para el Cambio Climático y Mecanismo de Desarrollo Limpio.

ARTÍCULO 3.- El Consejo Nacional para el Cambio Climático y Mecanismo de Desarrollo Limpio tendrá como objetivos fundamentales:

A. Formular, diseñar y ejecutar las políticas públicas necesarias para la prevención y mitigación de las emisiones de los Gases de Efecto Invernadero (GEI), la adaptación a los efectos adversos del Cambio Climático y promover el desarrollo de programas, proyectos y estrategias de acción climática relativos al cumplimiento de los compromisos asumidos por la República Dominicana en la Convención Marco de las Naciones Unidas sobre Cambio Climático y los instrumentos derivados de ella, particularmente el Protocolo de Kyoto.

B. Contribuir a la mitigación del Cambio Climático mediante inversiones ambientalmente sostenibles a través de proyectos u otros instrumentos utilizando los mecanismos internacionales provistos por la Convención Marco de las Naciones Unidas sobre Cambio Climático y su Protocolo de Kyoto, que promuevan el desarrollo económico que contribuya a reducir la pobreza, con la participación activa del sector público y privado tanto nacional como internacional.

C. Formular y Aprobar la estrategia de inversión de los proyectos de Mecanismo de Desarrollo Limpio a implementar.

D. Evaluar y supervisar las actividades que ejecuten la ONCC y ONMDL y la de financiamiento que establezca la **Cuenta Nacional de Carbono.**

E. Fortalecer las capacidades científicas y técnicas para la formulación de proyectos del MDL en el sector público, privado y la sociedad civil.

F. Proveer proyectos de mitigación al cambio climático que generen certificados de reducción de emisiones de acuerdo a los requisitos establecidos por los instrumentos internacionales en materia de cambio climático.

G. Establecer las coordinaciones interinstitucionales necesarias con las autoridades vinculadas al cambio climático para asegurar la implementación de proyectos que estabilicen las concentraciones atmosféricas de los gases de efecto invernadero.

H. Establecer la coordinación y el consenso institucional local con los actores gubernamentales, del sector privado y de la sociedad civil, definiendo los roles y funciones en cuanto a la Cuenta Nacional de Carbono, su reglamento y operación.

I. Asegurar que los esfuerzos que se realicen, estén en correspondencia con la Política Ambiental y la Estrategia Nacional para abordar el Programa de Cambio Climático, y garantizar las sinergias con los planes regionales en ejecución y por ejecutar, con mira a reducir la pobreza en el país.

J. Supervisar el manejo de los fondos de carbono.

K. Elaborar y aprobar el reglamento y manual de organización y funcionamiento de la ONCC, ONMDL y la Junta Directiva.

L. Aprobar e implementar el plan de capacitación para la formulación, certificación, evaluación y monitoreo de proyectos del MDL.

M. Ser el punto focal de la Convención Marco sobre Cambio Climático y del Protocolo de Kyoto, así como nombrar al Director de la Oficina Nacional de Cambio Climático y la Oficina Nacional de Mecanismo de Desarrollo Limpio.

N. **Formular** el presupuesto anual y el balance general de la cuenta Nacional de Carbono.

O. Ejercerá las demás funciones que el Reglamento interno de Organización y Funcionamiento le establezcan para el cumplimiento de los objetivos pertinentes.

P. Coordinar con el Comité Gubernamental de Ozono (COGO) para que las actividades, proyectos y transferencia de tecnologías que se realicen, conduzcan a una efectiva reducción de la emisión de los gases de efecto invernadero en el corto, mediano y largo plazo y al menor costo posible para el País.

ARTÍCULO 4.- El Consejo adoptará las medidas que sean necesarias para alcanzar sus objetivos y coordinará sus acciones, a través de su Vicepresidente Ejecutivo, con las demás dependencias y organismos oficiales, privados y no gubernamentales vinculados directos o indirectamente con el Cambio Climático y el Mecanismo de Desarrollo Limpio.

ARTÍCULO 5.- La ONCC y la ONMDL deben trabajar en estrecha coordinación con todas las instituciones públicas, privadas y de la sociedad civil ligadas al tema del Cambio Climático, principalmente La Secretaría de Estado de Medio Ambiente y Recursos Naturales, La Secretaría de Estado de Agricultura, La Secretaría de Estado de Relaciones Exteriores, la Súper Intendencia de Electricidad, la Corporación Dominicana de Empresas Eléctricas Estatales, el Banco Central de la República Dominicana, la Secretaría de Estado de Industria y Comercio, la Dirección Nacional de Transporte Terrestre de la Secretaría de Estado de Obras Públicas, la Oficina Nacional de Meteorología, la Defensa Civil Dominicana y la Secretaría de Estado de Economía, Planificación y Desarrollo.

PÁRRAFO: Las entidades del Poder Ejecutivo **deberán** coordinar acciones, planes, programas y políticas con la Vicepresidencia Ejecutiva del Consejo y sus respectivas oficinas administrativas.

DE LA ORGANIZACIÓN Y EL FUNCIONAMIENTO

ARTÍCULO 6.- La Oficina Nacional de Cambio Climático (ONCC) estará bajo la dirección y control de la Vicepresidencia Ejecutiva del Consejo, siendo el responsable de la Oficina el Director de Cambio Climático.

PÁRRAFO: Son Funciones del Director de la Oficina Nacional de Cambio Climático:

a) Ejecutar las acciones de la ONCC de acuerdo a las políticas, planes, programas y proyectos aprobados por el Consejo Nacional para el Cambio Climático y el Mecanismo de Desarrollo Limpio.

ARTÍCULO 7.- El Objetivo General de la ONCC será apoyar la misión y objetivo de la Vicepresidencia Ejecutiva del Consejo y la Secretaria de Estado de Medio Ambiente y Recursos Naturales, en el cumplimiento de los compromisos derivados de la ratificación de la Convención de la Naciones Unidas sobre Cambio Climático y cualquier otro instrumento vinculado con ésta.

ARTÍCULO 8: Son Objetivos específicos de la ONCC:

a) Facilitar la definición, ejecución y evaluación intersectorial e interinstitucional de una estrategia nacional de cambio climático;
b) Coordinar la definición y aplicación efectiva de las políticas y medidas para enfrentar el cambio climático;

c) Promover la creación de capacidades nacionales para la gestión efectiva de las políticas y medidas para enfrentar el cambio climático;

d) Fomentar el desarrollo científico de la ciencia de la Tierra y la atmósfera, así como el establecimiento de esquemas de transferencia de tecnologías de mitigación y adaptación al cambio climático;

e) Desarrollar programas de sensibilización y conciencia pública en los temas vinculados tanto con las medidas para enfrentar los impactos del cambio climático, como con las oportunidades derivadas de los esfuerzos de la comunidad internacional;

f) Asumir los puntos focales vinculados a la Convención de Cambio Climático, mediante la participación activa en el proceso de negociaciones de la agenda internacional sobre cambio climático;

g) Dirigir y dar seguimiento a las reuniones del Comité Nacional de Clima, creado por Resolución de la Secretaria de Estado de Medio Ambiente y Recursos Naturales, No. 02-2002, fecha 30 de enero del 2002;

h) Promover la suscripción de convenios, acuerdos, cartas de entendimiento o cualquier otro mecanismo o instrumento que facilite las coordinaciones y lazos de cooperación nacional e internacional;

ARTÍCULO 9.- La Oficina Nacional del Mecanismo de Desarrollo Limpio (ONMDL) estará bajo la dirección y control de la Vicepresidencia Ejecutiva del Consejo, siendo el responsable de la Oficina el Director de Mecanismo de Desarrollo Limpio.

ARTÍCULO 10: Son Funciones del Director de la ONMDL

a) ejecutar las acciones de la ONMDL de acuerdo a las políticas, planes, programas y proyectos aprobados por el Consejo Nacional para el Cambio Climático y el Mecanismo de Desarrollo Limpio.

ARTÍCULO 11: La ONMDL tendrá como objetivo general la ejecución de proyectos de energía renovable, eficiencia energética, captura de metano, uso de combustible más limpio, entre otros, en el marco del Convención de Cambio Climático y el Protocolo de Kyoto, con el propósito de reducir y capturar gases de efecto invernadero:

ARTÍCULO 12: Son objetivos específicos de la ONMDL:

a) Promover a escala nacional e internacional la aprobación y registro de iniciativas o programas que incentiven la ejecución de proyectos de fijación y reducción de emisiones ante las instancias

definidas por la Convención Marco de la Naciones Unidas sobre el Cambio Climático y el Protocolo de Kyoto;

b) Facilitar a los desarrolladores de proyectos, que reducen o evitan emisiones de gases de efecto invernadero, los recursos necesarios para su formulación y presentación, y la obtención de recursos financieros adicionales y en condiciones atractivas cuando se requieran;

c) Facilitar la ejecución de mecanismos que permitan remover las barreras que limitan la ejecución de proyectos de energías renovables;

d) Asesorar a los diferentes sectores en la preparación de proyectos del MDL.

e) Facilitar el endoso a nivel nacional de proyectos de participación en el MDL;

f) Identificar iniciativas interesadas en proyectos de compra de certificados de reducción de emisiones, o fijación de CO_2 por sumideros en el mercado internacional;

g) Facilitar a los diferentes sectores la negociación de los certificados de reducción de emisiones a nivel internacional;

h) Promover la creación de la capacidad técnica nacional para la elaboración de proyectos de mitigación de gases de efecto invernadero que estén acorde con la política ambiental del Estado Dominicano;

i) Ejercerá la función de Autoridad Nacional Designada y operativa para el MDL ante la Convención Marco sobre Cambio Climático. También la ONMDL podrá participar en cualquier **propuesta** de negociación internacional dentro del ámbito de su competencia en la que la Vicepresidencia Ejecutiva oriente;

j) Ejecutar programas y proyectos dentro del Mecanismo de Desarrollo Limpio con enfoque de equidad de género;

k) Proponer y negociar convenios, acuerdos, cartas de entendimiento o cualquier otro mecanismo o instrumento que facilite la aprobación de proyectos dentro del Mecanismo de Desarrollo Limpio, en coordinación con organismos nacionales e internacionales;

l) Dirigir los procesos de certificación de los proyectos del MDL presentados por el sector Oficial, sector Privado y las ONG's, conforme a los criterios de la Secretaría de Estado de Medio Ambiente y Recursos Naturales y la Dirección Ejecutiva del MDL de la Convención Marco sobre Cambio Climático.

DE LA CUENTA NACIONAL DE CARBONO

ARTÍCULO 16: Se crea la Cuenta Nacional de Carbono, la cual se incorporará como una subcuenta del Fondo Nacional para el Medio Ambiente y los Recursos Naturales, de conformidad con la Ley 64-00, Artículo 71, que crea la Secretaría de Estado de Medio Ambiente y Recursos Naturales, de fecha 18 de Agosto del 2000 y por lo dispuesto por el presente Decreto.

Párrafo: Para su operación el Consejo Nacional para el Cambio Climático y Mecanismo de Desarrollo Limpio recibirá los fondos consignados en el Presupuesto Nacional y el veinte por ciento (20%) de los fondos recaudados conforme al Decreto No. 226-07, de fecha 19 de abril de 2007.

ARTÍCULO 17: El Vicepresidente Ejecutivo del Consejo ejercerá a la vez el cargo de gerente de la Cuenta Nacional de Carbono, conforme a los procedimientos y mecanismos establecidos en la Ley General de Medio Ambiente y Recursos Naturales. A tal efecto, tendrá las siguientes funciones:

a) Ejecutar la dirección y administración de los fondos que se obtengan para las operaciones de la Cuenta Nacional de Carbono, de acuerdo a lo aprobado por El Consejo, y conforme a lo establecido en el reglamento interno de Organización y Funcionamiento de dicha Cuenta, con derecho a manejar el fondo de preinversión y la asistencia técnica necesaria.

b) Suministrar a las entidades y personas donantes, los informes requerido sobre la utilización y gestión de los recursos bajo la administración de la Cuenta Nacional de Carbono.

ARTÍCULO 18: La cuenta Nacional de Carbono tendrá como objetivo principal, financiar los planes, programas, estudios, estrategias y proyectos necesarios para alcanzar los objetivos de la Convención Marco de la Naciones Unidas sobre Cambio Climático y las disposiciones del Protocolo de Kyoto con especial énfasis en el Mecanismo de Desarrollo Limpio.

PÁRRAFO: El reglamento y funcionamiento de la ONCC y la ONMDL fijará las condiciones y el modo de operación de la Cuenta Nacional de Carbono, el cual debe estar en concordancia con las normas de operación del Fondo Nacional para el Medio Ambiente y los Recursos Naturales.

ARTÍCULO 19: Las actividades, acciones y proyectos relacionados con el tema de Cambio Climático y su mitigación y especialmente con la reducción de emisiones y la fijación de carbono, deberán ajustarse a las disposiciones del presente Decreto y las normas que estipulen la ONCC y la ONMDL, por medio del Consejo Nacional para el Cambio Climático y Mecanismo de Desarrollo Limpio.

ARTÍCULO 20: El presente Decreto deroga y sustituye cualquier otra disposición de igual o menor jerarquía que le sea contraria, y transfiere el control de todos lo proyectos en materia de Cambio Climático y Mecanismo de Desarrollo Limpio y Protección de la Capa de Ozono, actualmente en ejecución, al Consejo Nacional para el Cambio Climático y Mecanismo de Desarrollo Limpio.

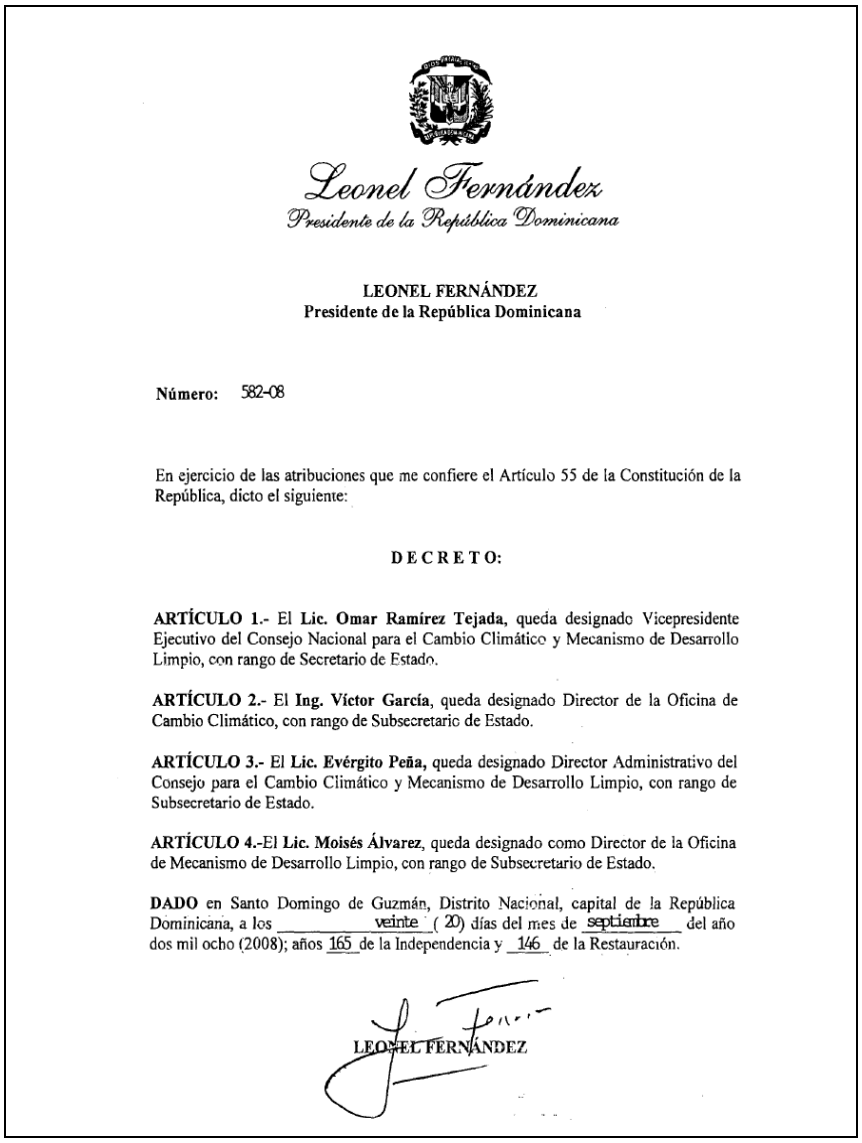
ARTÍCULO 21: Envíese a la Secretarías de Estado y las instituciones señaladas en el Artículo uno (1) del presente Decreto.

DADO en Santo Domingo de Guzmán, Distrito Nacional, capital de la República Dominicana, a los veinte (20) días del mes de septiembre del año dos mil ocho (2008); años 165 de la Independencia y 146 de la Restauración.

LEONEL FERNÁNDEZ

2.2.2. Decree No. 582–08 naming the National Climate Change and CDM Authorities

Decree No. 582–08 concentrates on naming the key personnel to be involved in enforcing the national Climate Change and Clean Development Mechanism norms. Below is a textual copy of Decree No. 582–08 from the PDF file received during the technical visit to the country in late 2008.



Leonel Fernández
Presidente de la República Dominicana

LEONEL FERNÁNDEZ
Presidente de la República Dominicana

Número: 582-08

En ejercicio de las atribuciones que me confiere el Artículo 55 de la Constitución de la República, dicto el siguiente:

D E C R E T O:

ARTÍCULO 1.- El **Lic. Omar Ramírez Tejada**, queda designado Vicepresidente Ejecutivo del Consejo Nacional para el Cambio Climático y Mecanismo de Desarrollo Limpio, con rango de Secretario de Estado.

ARTÍCULO 2.- El **Ing. Víctor García**, queda designado Director de la Oficina de Cambio Climático, con rango de Subsecretario de Estado.

ARTÍCULO 3.- El **Lic. Evérgito Peña,** queda designado Director Administrativo del Consejo para el Cambio Climático y Mecanismo de Desarrollo Limpio, con rango de Subsecretario de Estado.

ARTÍCULO 4.-El **Lic. Moisés Álvarez**, queda designado como Director de la Oficina de Mecanismo de Desarrollo Limpio, con rango de Subsecretario de Estado.

DADO en Santo Domingo de Guzmán, Distrito Nacional, capital de la República Dominicana, a los veinte (20) días del mes de septiembre del año dos mil ocho (2008); años 165 de la Independencia y 146 de la Restauración.

LEONEL FERNÁNDEZ

2.3. Designated National Authority for the CDM

According to the CDM Web page, the Designated National Authority for the CDM in Dominican Republic is:

Consejo Nacional para el Cambio Climático y el Mecanismo de Desarrollo Limpio (CNCCMDL) February 27, No. 419, Group Metro Bldg., 6th Floor, Santo Domingo S.E. Sr. Omar Ramírez Tejada (despacho@cambioclimatico.gob.do, o.ramirez@cambioclimatico.gob.do) Secretary of State, Executive Vice–president Telephone: (809) 850 0535
Oficina Nacional del Mecanismo de Desarrollo Limpio (ONMDL), *Consejo Nacional para el Cambio Climático y el Mecanismo de Desarrollo Limpio* (CNCCMDL) February 27, No. 419. Group Metro Bldg., 6th Floor, Santo Domingo Sr. Moisés Alvarez (onmdl@cambioclimatico.gob.do, m.alvarez@cambioclimatico.gob.do) Under–Secretariat of State, Director Telephone: (809) 858 3063

The National CDM Authority is in the process of creating its Web site, which will have the following URL: www.cambioclimatico.gob.do

2.4. National Approval Procedures for CDM Projects

So far, there is no knowledge of an explicit national approval procedure for CDM projects in the Dominican Republic within the context of the country's recently approved norms. Decree No. 601–08 clearly sets forth the responsibilities concerning national CDM project approval and establishes that the Council, together with the respective offices, should develop the national project approval procedures.

All national CDM project approval processes should take into account key aspects such as procedure scope, efficiency, transparency, and consideration for assessing the contribution to sustainable development.

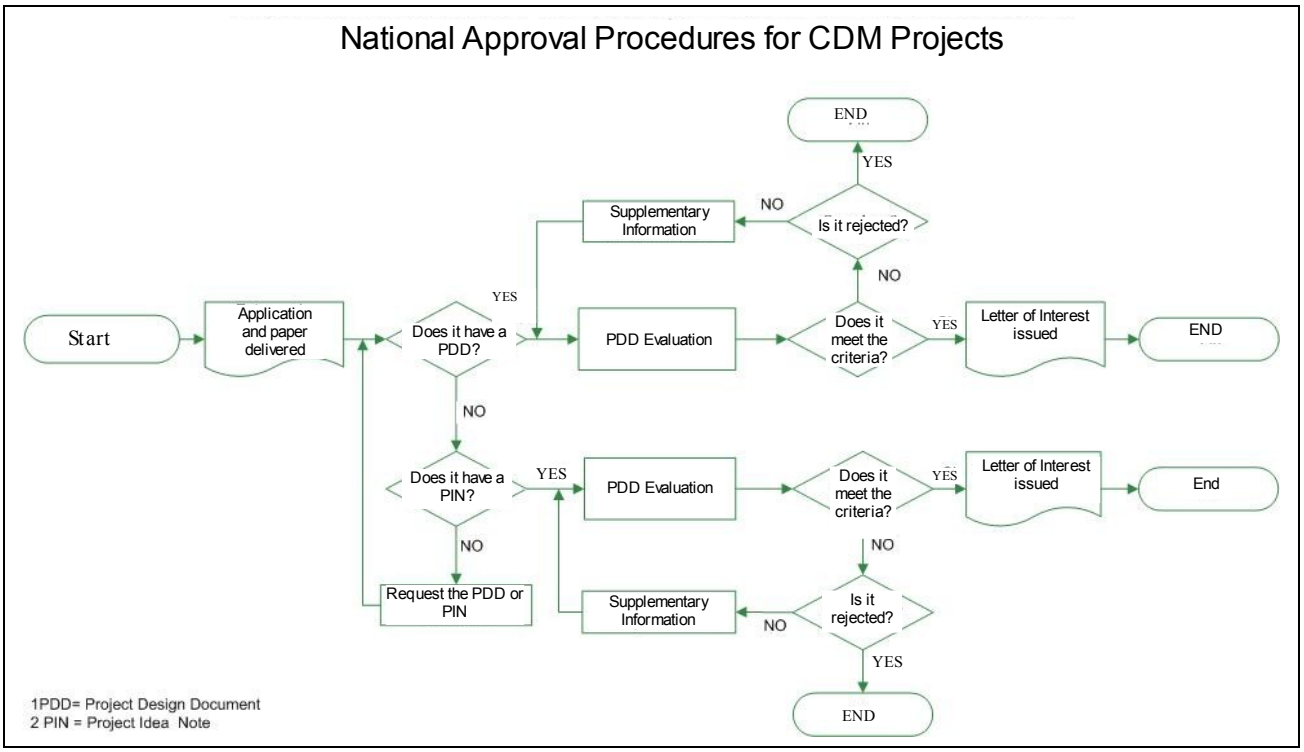
Although there is no directly stated procedure, during the consultant work done from 2006 to 2007, the consultants Christiana Figueres and Mariana Awad[2] developed a series of important guidelines relating to national approval procedures, which included:

[2] Christiana Figueres, Marina Awad. *Informe de consultoría para la Secretaría de Medio Ambiente y Recursos Naturales*. March 9, 2007.

1. Project assessment procedures,
2. Project assessment form,
3. Rules for CDM project assessment, and
4. Sustainability criteria.

Annex I hereof contains a copy of the procedures suggested during that consultancy. So far, the National CDM Authorities have used the procedures suggested by the consultants as a guide for developing their processes and requesting information from project developers interested in obtaining national CDM approval. However, in view of the institutional arrangements approved by Decree No. 601–08, the authorities in charge should proceed to assess and define the processes to be used for approving CDM projects.

The procedures suggested by the consultants' 2007 study involves considering national approval to grant both Letters of No Objection and Letters of National Approval.



For considering contributions to sustainable development, the procedures proposed in 2007 included an approach based on using a checklist with the following elements:

Environmental Criteria

1. Environmental protection
2. Biodiversity conservation
3. Sustainable land use
4. Coastal marine resource protection
5. Mitigating air, water and soil pollution
6. Watershed protection

Socioeconomic Criteria

7. Reducing fossil fuel imports
8. Increasing renewable energy resource use
9. Improving energy efficiency
10. Clean technology transfer
11. Generating jobs
12. Enhancing the community's quality of life

Annex II of this paper includes considerations and experiences for developing criteria to assess contributions to sustainable development in Latin America, which are presented in an attempt to support local development of criteria for assessing sustainable development in the country.

In conclusion, although national approval procedures have not been made explicit, the new authorities on the Dominican National Climate Change and CDM Council have all the appropriate elements in terms of the proposals and papers needed to activate an effective, transparent CDM project approval procedure on the short term. To this end we recommend they assess and update the procedures and criteria in the light of the responsibilities assigned in Decree No. 601–08, and publish these procedures as soon as possible both domestically and abroad, so that interested CDM project developers may familiarize themselves with them and start to put them into practice.

3. CDM Project Environment in the Dominican Republic

3.1. Current CDM Project Portfolio in the Dominican Republic

The Dominican Republic has various projects in different CDM project cycle stages and others in the formulation process to be submitted for consideration by the CDM.

Table 1 presents information available at the CDM Web site regarding projects that are already registered in the CDM.

Table 1. Dominican Projects Registered in the CDM

Registration Date	Project Name	Annex I Participant Countries	Methodology	Expected Reductions (tCO_{2e}/year)
20 Oct 06	El Guanillo wind farm in Dominican Republic	Spain	ACM 0002 ver. 6	123,916

Table 2 presents information regarding all Dominican projects that have entered the CDM validation, according to official data available on the CDM Web site.

Table 2. Dominican Projects that have Begun CDM Validation

Project Name	Methodology	Expected Reductions (tCO_{2e}/year)	Comment Period
El Guanillo Wind Farm	ACM 0002 ver. 4	115,879	11 Jan 06 – 10 Feb 06
Cabo Engaño Wind Project	AMS–I.D. ver. 8	20,235	28 Jul 05 – 26 Aug 05
Juancho – Los Cocos wind farm project, 100 MW	ACM 0002 ver. 6	321,433	05 Jan 07 – 03 Feb 07
CEMEX Dominicana. Blended cement project	ACM 0002 ver. 4	138,297	11 Jun 08 – 10 Jul 08
Bionersis project on La Duquesa landfill, Dominican Republic	ACM 0002 ver. 9	392,870	15 Nov 08 – 14 Dec 08

3.2. Identified Projects at CDM Formulation Stages in Dominican Republic

Table 3 presents a list of projects –detected by the Dominican DNA– that are in the formulation process and are interested in preparing the Project Development Document (PDD) to begin the CDM project cycle.

Table 3. Projects under Formulation for the CDM, Identified in the Dominican Republic

Company / Developer	Project Type	Capacity	CO_2 equivalent sequestration expected per year	Status
Forbes Energy Dominicana S.A. FED Manzanillo Project	Co–generation with biomass from sugar mills	74 MW	530,917	PDD completed
Zona Franca 2 Ríos Co–generation with agro–forestry waste in Dominican Textile Offshore Site	Co–generation with biomass	0.75 MW plus substitution of fossil fuels to generate process heat	149,175	PIN
Ministry of Industry and Trade Optimizing lamps in public buildings	Demand–side energy efficiency	Changing 150,000 lamps, with 40 GWh in energy savings	33,000	PIN
Induspalma Dominicana Composting empty African palm bunches and using waste process water in *Induspalma Dominicana*	Avoiding methane emissions from decomposing African palm waste	–	12,250	PIN
Aporli Sequestering methane and applying it in pig farms for self–consumption	Avoiding methane emissions from animal manure in the pork industry	–	132,800	PIN
ECOSUR	CCI co–digestion and composing of animal wastes and sugar sludges	0.45 MW	7,814	PIN
Junta Agroempresarial Dominicana	Dominican programme to produce wood for commercial and industrial uses	Up to 75,000 ha.	400,000 (in 20 years)	PIN

3.3. Other CDM Projects Identified in the Dominican Republic

Table 4 presents other projects with CDM potential that have been identified and for which pre–investment planning and development activities are currently detected (some of which were discovered during the National CDM Workshop organized by OLADE in late 2008).

Table 4. Other Projects in the Dominican CDM Portfolio

Nº	Category	Characteristics	Description	Status	CERs / year	Institution
1	Energy Efficiency	Substituting incandescent bulbs for efficient bulbs	Substituting 150,000 low–efficiency fluorescent lamps for high–efficiency ones	Planning	33,000	*Corporación Dominicana de Empresas Eléctricas Estatales* (CDEEE)
2	Energy Efficiency	Improving power transmission efficiency	Reactive power compensation	Planning	50,000	CDEEE
3	Fuel change–over	Changing HFO fuel for natural gas	Substituting HFO No. 6 for natural gas 300 MW	Planning	500,000	Basic Energy
4	Wind parks	Wind parks	108 MW wind park	Validation	347,000	Basic Energy
5	Renewable gas generation	Biomass waste gasification	Programmatic power generation project with renewable biomass gasification, 116 MW	Planning	500,000	KOAR ENERGY
6	Hydro–electric Projects	119 MW in hydropower generation	5 small–scale and 2 large–scale hydro projects	Planning	616,000	*Empresa Generadora de Electricidad Hidráulica* (EGEHID)
7	Co–generation with biomass	1 MW Replicable project	Cogeneration with sugarcane bagasse and injection into the grid 1 MW	Planning	6,000	*Cooperativa Cañera* (COOPCAÑA)
8	Co–generation with biomass	40 MW	Cogeneration with sugarcane bagasse and injection into the grid	Planning	180,000	CTD

Nº	Category	Characteristics	Description	Status	CERs / year	Institution
9	Fuel change–over	Changing HFO fuel for natural gas	Substituting HFO No. 6 for natural gas 112 MW	Planning	200,000	Seabord Dominicana
10	Wind parks	Wind parks	100 MW wind project	Planning	300,000	Seabord Dominicana
11	Fuel change–over	Changing diesel fuel for natural gas POA	Programmatic project to substitute diesel for natural gas in heat and electricity generation for industrial and hotel sector	Planning		AES Dominicana
12	Fuel change–over	Changing diesel fuel for renewable biomass 1 MW	Substituting diesel for renewable biomass in cacao production plant	Planning	6,000	*BIOCAFCAO, SA*
13	Wind parks	Wind parks	100 MW wind project	Planning	300,000	Grupo Eólico Dominicano (GED)
14	Energy efficiency and renewable energy	Energy efficiency and renewable energy measures	Energy efficiency projects	Planning	34,000	Estefany & Asociados
15	Mass passenger transport	Santo Domingo Metro	Mass passenger transportation for lines 1, 2 and 3 in Santo Domingo	Planning	150,000	CAF and OPRET
16	Transportation	Substituting fuel in inter–urban passenger transport units	Fuel change–over in vehicular transportation units using diesel to other, less carbon–intensive fuel	Planning		Caribe Tours

Nº	Category	Characteristics	Description	Status	CERs / year	Institution
17	Transportation	Substituting fuel in urban passenger transport units	Fuel change–over for taxis and urban buses, from gasoline / gasoil to natural gas	Planning		*Central Nacional de Transportistas Unificados* (CNTU)
18	Energy Efficiency	Energy efficiency through intelligent devices or substituting high–consumption devices	Energy efficiency measures in hotels by installing intelligent devices in rooms and substituting individual AC units for Chillers	Planning	40,000	T & S Energía
19	Solid Waste	Biogas capture and burning in the Duquesa landfill	Capture, burning and subsequent power generation with landfill gases generated in Duquesa	Planning	350,000	Bionersis and La Jun Corporation
20	Solid Waste	Making compost from solid wastes and waste water	Using solid and liquid wastes from palm oil extraction process	Technical definition	10,000	Induspalma Dominicana
21	Residuum	Co–digestion (manure + sugarcane waste) + composting treatment	Co–digestion of cattle manure and waste water	Technical–financial assessment	6,000	*Consorcio Azucarero de Empresas Industriales*
22	Solid waste	Making compost from organic solid waste and farm wastes	Using organic solid waste to make compost	Planning		*Fundación Agricultura y Medio Ambiente* (FAMA) and Bioliga

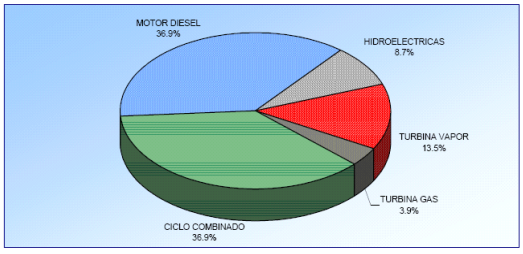
Nº	Category	Characteristics	Description	Status	CERs / year	Institution
23	Transportation	Including hydrogen in the combustion chambers of transportation vehicles	Including hydrogen in combustion chambers of internal combustion engines of transportation vehicles for fuel savings and emissions control	Planning	60,000	New Energy Dominicana
24	Forestry	Reforesting deforested areas	Reforesting deforested areas in the country, by installing agro–forestry cooperatives and nurseries	Planning	6,000,000	RainTree Corp
25	Forestry	Reforesting the Rio Blanco watershed	Reforesting the higher part of the Rio Blanco watershed	Planning	401,000	TNC

The situation of the country's energy sector favours a high level of interest in CDM matters in the country. Some of the characteristics of the country's electric sector that were presented during the National CDM Workshop organized by OLADE[3]are:

Characteristics (I)

- Heavy dependency on fossil fuels.
- Power demand of nearly 2.2 GW.
- Emission factor: Approx. 0.8 tCO_2 / MWh_e.
- Power demand growth of approx. 6% per year.

Percentage Makeup of Net Generation by Plant Type



Fuente: **OC del SENI**

[3] Nelson Rodríguez, *El sector energético y los proyectos MDL en República Dominicana*. September 2008.

The Energy Sector Technical Assistance Project, IBRD No. 7217–DO, implemented by the *Secretaría de Estado de Medio Ambiente y Recursos Naturales* (SEMARENA) and the *Comisión Nacional de Energía* (CNE), researched the CDM potential in the country's hydro–power sector, as shown below:

Renewable Energy (III)			
• Large-scale Hydroelectric CDM (>15 MW). o EGEHID projects in portfolio: 147 MW. o The CDM would support developing the following: ▪ Community activities. ▪ Watershed protection.			
Large scale			
Project	**Power (MW)**	**Energy (GWh / year)**	**tCO_2 / year**
Las Placetas	87	331	764,800
Artibonito	47	125	99,864
La Hilguera	15	58	45,400

Renewable Energy (IV)			
• Small-scale Hydroelectric CDM (>5 MW). o EGEHID projects in portfolio: 59 MW. o Fewer registration difficulties.			
Small scale			
Project	**Power (MW)**	**Energy (GWh / year)**	**tCO_2 / year**
La Diferencia	11	30	25,536
Arroyo Gallo	13	49	40.824
Hondo Valle	14	48	39,900
Los Jaimenes	6	37	22.764
El Torito–Los Veguanos	15	67	56,322

Research activities into the potential market for and development of CDM projects were carried out in the country through:

- A study to identify markets for the CDM in the Dominican Republic, supported by the Canadian Government, in 2006.

- *The Energy Sector Technical Assistance Project (IBRD No. 7217–DO) by the Oficina Nacional del Mecanismo de Desarrollo Limpio* (ONMDL) and the *Consejo Nacional para el Cambio Climático y el Mecanismo de Desarrollo Limpio* (CNCCMDL).

- AECI Project A/4823/06 to study the technical and economic viability of energy production with wastewater from palm oil production through anaerobic digestion, supported by the AECI and executed by the *Universidad de Oviedo* and the *Universidad Nacional Pedro Henríquez Ureña*, during the 2007–2008 term.

- A base line study of the national electric sector by the *Universidad Nacional Pedro Henríquez Ureña*, funded by the *Secretaría de Educación Superior, Ciencia y Tecnología* (SEESCyT).

- A project called "Study of CDM Project Development Potential in the Dominican Republic and Capacity Building for Project Staff regarding the CDM", supported by the Japan International Cooperation Agency (JICA), in execution during the 2008–2009 term.

Table 5 presents information on research regarding programmatic type projects in the country, conducted during the National CDM Workshop organized by OLADE in September 2008 in Santo Domingo.

Table 5.
Programmes of Activities with Early Potential Identification by Coordinating Entities

Organization	Programme of Activities
Instituto Dominicano de Investigación Agropecuarias y Forestales (IDIAF) / SERCA / ECOTOPÍA S.A.	Community garbage recycling and energy production
Instituto Dominicano de Desarrollo Integral (IDDI)	Different community–level renewable energy projects, plus the creation of a carbon fund
New Energy Dominicana	Hydrogen generation equipment to save fuel in transportation fleets
World Vision	Reforestation zone / community projects
Caribe Tours C x A	Programmes or projects implemented to reduce CO_2 emissions and increase fuel yields
Precision Engineering Group of Companies	Using efficient electrical equipment, energy from renewable sources and "intelligent" management of energy sources
Combustibles Renovables de las Américas	Programmatic CDM to bring together 3–6 small–scale bio–diesel producers
Agua Limpia DM	Programmatic CDM for pigs, chickens, etc. and bio–gas production
Oficina Metropolitana de Servicios de Autobuses (OMSA)	CDM project feasibility in the transportation sector

There are presently few projects in the CDM development cycle in Dominican Republic, but throughout the activities carried out during the development of this work, it was clearly an intense interest among local actors in developing projects in the different sectors relating to the CDM, with an effervescence of analysis and the determination to develop mitigation projects in the country.

The energy situation in the country, with the growing demand, structural issues, search for ways to reduce fossil fuel dependency, and the approval of regulations in support of renewable energy, all converge in making an interesting potential for CDM projects in the energy field.

The country would benefit from continuing the technical assistance in the fields that were developed, in order to deepen the training and strengthen the supply of quality CDM projects.

4. Technical Assistance offered to the National Office of the Clean Development Mechanism in the Dominican Republic

The specific technical assistance that was offered through activity execution in the country consisted of:

a. Organizing and holding a National CDM Workshop in Santo Domingo from September 10 to 11, 2008.

b. Developing CDM Project Idea Notes (PINs).

4.1. Organizing and Holding a National CDM Workshop

The National Workshop was divided into two work sessions:

- The CDM updating session, held on the morning of September 10, 2008, directed at a general strategic audience of all those interested in the CDM. This session had a duration of 4 hours, during which lectures were given on the current CDM situation, the carbon market status, and legal / contractual aspects of greenhouse gas emissions reduction projects. The country's current institutional arrangements and national CDM project approval procedures were also presented, followed by a discussion of CDM project research in key sectors of the country.

- The Programmatic CDM Workshop session, held in the afternoon of September 10 and all of September 11, 2008. This workshop included lectures on the Programmatic CDM environment, its modalities and procedures, and cases of on–going projects under this modality. There was a session to generate frequently asked questions on the Programmatic CDM, and a lessons–learned session on the Programmatic CDM, especially how coordinating entities can participate in these activities. As part of this workshop, the afternoon of the second day, used the modality of personalized appointments with 11 project developers, to provide specific support for POA opportunities that arose during the workshop itself.

The central purpose of this activity was to provide up–to–date information on the technical elements needed to develop energy projects within the CDM context and to deliver presentations on concepts and progress regarding international development of "programmatic" projects within the CDM framework. Further information on this event can be found at OLADE's Web site: www.olade.org

The agenda for this activity is presented below:

Agenda for the Seminar / Workshop

Wednesday, September 10, 2008

Time	*Topic*	***Speakers / Facilitators***
8:00 – 8:30 8:30 – 9:00	Participant Registration Inauguration	Byron Chiliquinga, OLADE Miriam Hinostroza, UNEP Risoe Ernesto Reyna, SEMARENA
CDM Update		
Status of the Clean Development Mechanism (CDM) and Carbon Markets		
9:00 – 9:30	Update of the international situation and recent developments in the CDM	Oscar Coto, OLADE consultant
9:30 – 10:00	International carbon market situation	Martha Castillo, CAF
10:00 – 10:30	CDM institutions and project approval in the Dominican Republic	Moisés Álvarez, National CDM Office
10:30 –10:45	Break	
10:45 – 11:45	Opportunities to develop CDM projects in the Dominican Republic	Nelly Cuello Alfonso Rodriguez Villalba Carlos Rijo
11:45 – 12:15	Legal aspects of emissions reduction marketing	Ubaldo Elizondo, CAF
12:15 –13:00	Support and Strengthening Programmes under the CDM *(This session will address the different support, capacity building and project development initiatives in the country and in the Caribbean region)*	Miriam Hinostroza, UNEP Risoe Hiroshi Kato, JICA
13:00	Conclusion of the public update session on the CDM and carbon markets	

Agenda for the Seminar / Workshop

Wednesday, September 10, 2008 (Programmatic section)

Workshop on Programmatic CDM Developments (by invitation)		
Understanding the Programmatic CDM		
14:30 – 14:50	Welcome to the workshop, expectations, participant introductions	OLADE / Dominican National CDM Office
14:50 – 15:20	What is the Programmatic CDM and what new opportunities does it offer?	Oscar Coto, OLADE consultant
15:20 – 15:50	Current development of Programmes of Activities in the CDM	Miriam Hinostroza, UNEP Risoe
15:50 – 16:10	Lessons learned on the development of Programmes of Activities in the CDM	Oscar Coto, OLADE consultant
16:10 – 16:30	Break	
16:30 – 17:15	Frequently–asked questions, and answers, on the Programmatic CDM	OLADE / UNEP Risoe

Thursday, September 11, 2008

Time	*Topic*	***Speakers***
Continuation of the Workshop on Programmatic CDM Developments		
Session 4: Mobilizing the Programmes of Activities (POAs) in the CDM		
8:30 – 9:15	Guided tour of defining a POA in the CDM	Oscar Coto, OLADE consultant
9:15 – 10:00	Central aspects of the documentation required for the POAs in the CDM	Miriam Hinostroza, UNEP Risoe
10:00 – 10:15	Break	
10:15 – 11:15	Potential to Develop CDM Programmes of Activities in the Dominican Republic *(This talk offers an overview of the potential for developing Programmes of Activities in the country, from the view point of the National CDM Office)*	Nelly Cuello
11:15 –12:30	Mobilizing POA concepts for the CDM in the Dominican Republic *(In this session the organizations, institutions, and project developers will have the opportunity to reflect and discuss potential CDM programme ideas, and identify barriers and important aspects for initial conceptualization)*	OLADE / Participants
12:30 – 12:45	Conclusions	
12:45 – 14:00	Lunch	
Session 5: Appointments for Personalized Attention to POA Ideas		
14:00 – 17:00	Session for personalized attention to organizations, institutions or project developers who are interested in the Programmatic CDM	OLADE, UNEP Risoe, Dominican National CDM Office

The first work session on the CDM update was attended by a total of 59 persons, 42% of which were from the industry / private sector, 32% from the government, 10% from universities and research centres, 9% from NGOs, and 7% from international cooperation agencies.

The second work session on the Programmatic CDM was attended by a total of 42 persons, 45% of which were from the industry / private sector, 31% from the government, 12% from universities and research centres, 7% from international cooperation agencies, and 5% from NGOs.

The target list to attend the event included 183 participants during the CDM update session and 100 for the Programmatic CDM session. That is, there was an attendance rate of 33% for the first session and 42% for the second one, in relation to the target universe of participants. One possible reason for not having achieved higher numbers is no doubt the budgetary restrictions of inviting and training such a large number of participants. However, it strengthened the potential to provide targeted technical assistance and training to groups in the country, as a way of strengthening CDM development. Annex V includes lists of participants in the National CDM Workshop that was held.

4.2. Developing CDM Project Idea Notes (PINs)[4]

As part of this initiative, within the Dominican context, this document presents the concrete outcomes of developing 2 Project Idea Notes (PINs), which made a material contribution to project developers in the country.

Project selection was achieved with the help of the National CDM Office in the Dominican Republic, which has provided full support and facilitation to complete the technical work done.

The PINs that were developed include:

1. Composting empty African palm bunches and using waste process water in *Induspalma Dominicana,*

2. Programme of Activities (POA) for sequestering methane and applying it in pig farms for self–consumption, coordinated by Aporli.

Below are two developed PINs, which we hope will help strengthen CDM activities in the Dominican Republic. They were drawn up in English at the express request of the National CDM Office, to help present information on the country's portfolio at international carbon market events.

We would like to acknowledge the support provided by Messrs. Moisés Álvarez, Nelly Cuello, Alfonso Rodriguez Villalba, and Jehová Peña of the Dominican Republic's National CDM Office during the visit and exchanges required to develop this work. We would also like to thank the officials of *Induspalma Dominicana* for their cooperation in providing the information needed to develop the PIN for that company.

[4] The PINs developed were written in English at the request of the Dominican National CDM Office.

PROJECT IDEA NOTE (PIN)

Name of Project : Co-composting of EFB and POME – INDUSPALMA DOMINICANA S.A., Dominican Republic

Date submitted : June 30, 2008

A. PROJECT DESCRIPTION, TYPE, LOCATION AND SCHEDULE

OBJECTIVE OF THE PROJECT *Describe in not more than 5 lines*	The project aims: (1) to improve the environmental sustainability of the African Palm Oil agricultural industry trough better management of residue waste streams and production of compost in the Dominican Republic; and (2) To contribute to the global initiative on climate change.
PROJECT DESCRIPTION AND PROPOSED ACTIVITIES *About ½ page*	Induspalma Dominicana S.A. exploits a plantation of African palm located in the province of Monte Plata, Dominican Republic; with a processing capacity of up to 50 ton/h of fresh fruit bunches in its crude palm oil mill (CPO). The proposed CDM project activity consists in the installation of a composting facility where empty fruit bunches (EFB), a solid waste generated during the palm oil extraction process, will be treated with the palm oil mill effluent in a composting arrangement in order to produce a material that will be subsequently used as fertilizer in the plantation lands. Therefore the CDM objective of the Project activity is to avoid the methane emissions due to the decomposition of the EFB and the methane generated in the existing POME treatment lagoons
TECHNOLOGY TO BE EMPLOYED *Describe in not more than 5 lines*	The EFB are to be chopped and transported to the composting plant, where the EFB is dumped. A wheel loader will feed the material to a long raw with a rectangle cross section. The raw are regularly mixed by a mechanical turning machine (windrow turners) to ensure an optimal aerobically composting process, controlling the rotting process and the rate of evaporation of water. The fresh POME is pumped via pipe to the composting plant and store in an intermediary containment structure. From there a pump supplies the water into the distribution system, which allow moisten the heaps all over the composting area. Any run-off water at the composting plant due to either excess POME or collected rainfall is to be collected and stored in a pond, in order to be reused for moisturizing needs in the compost.
TYPE OF PROJECT	
Greenhouse gases targeted $CO_2/CH_4/N_2O/HFCs/PFCs/SF_6$ *(mention what is applicable)*	**CH_4**
Type of activities Abatement/CO_2 sequestration	Abatement
Field of activities *(mention what is applicable)* *See annex 1 for examples*	15. Agriculture
LOCATION OF THE PROJECT	
Country	Dominican Republic
City	Monte Plata
Brief description of the location of the project	Monte Plata region

No more than 3-5 lines	navegaciónbúsqueda **Statistics** Capital: **Monte Plata** Surface: 2.632 km² Population (est. 2000): 180.376 Density of Population : 66.2 / km² ISO 3166-2: DO-29 **Map**  **Limits** 

PROJECT PARTICIPANT	
Name of the Project Participant	**Induspalma Dominicana S.A.**
Role of the Project Participant	**Owner**
Organizational category	**Private company**
Contact person	José Manuel Armenteros, Operations Manager
Address	Avenida Máximo Gómez 182. Ens. La Fé. Santo Domingo, República Dominicana
Telephone/Fax	Tel: (809) 565-2151 Ext 2128, Fax: (809) 567-6752
E-mail and web address, if any	j.armenteros@mercasid..com.do http://www.mercasid.com.do/emp_ipalma.html
Main activities *Describe in not more than 5 lines*	Indusplama Dominicana S.A started operations in 1980, with the intention of becoming a provider of cooking oils for the internal market in the country. Induspalma produces African palm through agricultural management of around 5,000 hectares of land, and operates an extraction plant producing palm oil.

	
Summary of the financials *Summarize the financials (total assets, revenues, profit, etc.) in not more than 5 lines*	Available upon request
Summary of the relevant experience of the Project Participant *Describe in not more than 5 lines*	Induspalma Dominicana S.A. is very well acquainted with processing operations in the African palm oil processing as well as with agricultural operations for African palm production. In the processing facility, the unitary indicators of performance are within the expected for oil extraction mills in the Latin America region. Being a member company of the Mercasid Group, Induspalma Dominicana S.A is participant of several quality initiatives: ISO 9001-2000, TPM: (Total Performance Management), TLC: (Total Loss Control), and HACCP: (Hazard Analysis of Critical Control Point). The Mercasid Group experience began with the expansion of the array of products it offered the Dominican consumer, introducing into the market new varieties of oils, margarines and detergents in the early 70´s. In the 1980's, the group began the development of several agro industrial projects with African oil palm, flowers and citrus, creating the following member companies to the group: ✓ AGUA CRYSTAL ✓ CITRICOS TROPICALES ✓ FLORDOM ✓ INDUVECA ✓ INDUSPALMA DOMINICANA ✓ AGROCITRICOS The Mercasid Group is also the distributor in the Dominican Republic for different international brands such as Kellogg's, Kimberly Clark, Hershey's, Eridania-Behim Say (Koipe), Haagen Dass, General Mills, Dos Pinos, Novartis and Sardimar, amongst others.
Please insert information for additional Project Participants as necessary.	
EXPECTED SCHEDULE	
Earliest project start date *Year in which the plant/project activity will be operational*	2009
Estimate of time required before becoming operational after approval of the PIN	The time schedule of the project is currently being defined, but the firm expects to be operational within 15 months.
Expected first year of CER/ERU/VERs delivery	2010
Project lifetime *Number of years*	21 years
For CDM projects: Expected Crediting Period *7 years twice renewable or 10 years fixed*	7 years twice renewable.
Current status or phase of the	**Identification and pre-selection phase**. Documents are available on potential

project *Identification and pre-selection phase/opportunity study finished/pre-feasibility study finished/feasibility study finished/negotiations phase/contracting phase etc. (mention what is applicable and indicate the documentation)*	technology arrangements for the composting facility. The project participant has commissioned technical assistance consultancies for the determination of optimal paths for the use of agricultural residues in the operations. Consideration has been given to both direct bio-digestion of the POME with energy generation as well as integrated treatment of EFB and use of POME for supplying nutrients to the compost process in order to assist soil recuperation. Initial determinations have indicated that the second alternative is more interesting in order to close the integral loop of sustainability for the combined agricultural and processing operations of the firm. Induspalma Dominicana is currently exchanging with other palm oil producers in the Latin American region, with composting facilities and CDM project development in order to proceed with the next stages of the project development under the CDM.
Current status of acceptance of the Host Country *Letter of No Objection/Endorsement is available; Letter of No Objection/Endorsement is under discussion or available; Letter of Approval is under discussion or available* *(mention what is applicable)*	No formal request has been exchange between Host Country DNA and the project participant, although the project has been presented at several local CDM events sponsored by the DNA.
The position of the Host Country with regard to the Kyoto Protocol	Has the Host Country ratified/acceded to the Kyoto Protocol? **Yes** Has the Host Country established a CDM Designated National Authority / JI Designated Focal Point? **Yes**

B. **METHODOLOGY AND ADDITIONALITY**

ESTIMATE OF GREENHOUSE GASES ABATED/ CO_2 SEQUESTERED *In metric tons of CO_2-equivalent, please attach calculations*	The emissions reduction estimates presented are for full use of the POME in the composting facility: Annual (if varies annually, provide schedule): 12,250 tCO_2 equivalent (yearly average over the first 10 years) Up to and including 2012: 24,650 tCO_2-equivalent Up to a period of 10 years: 122,500 tCO_2-equivalent Up to a period of 7 years: 75,700 tCO_2-equivalent Taking into account that the composting facility may not use all of the POME of the processing mill, estimations are also included on the annual expected emissions reductions in case only 50 and 25% of the POME were to be used, issue that is currently being discussed by Induspalma.
BASELINE SCENARIO CDM/JI projects must result in GHG emissions being lower than "business-as-usual" in the Host Country. At the PIN stage	The proposed project activity avoids: 1. Methane emissions due to the decomposition of the EFB under open sky conditions, and the

questions to be answered are at least: • Which emissions are being reduced by the proposed CDM/JI project? • What would the future look like without the proposed CDM/JI project? *About ¼ - ½ page*	2. Methane emissions due to the operation of the existing POME waste water oxidation lagoons. The baseline scenario for the methane emissions due to the decomposition of the EFB is the current practice of placing the EFB in an unmanaged-shallow solid waste disposal site. The baseline scenario for the methane emissions due to the operation of the wastewater treatment system is the current practice in which the POME is placed in an oxidation lagoon with clear anaerobic conditions, having the existing lagoon system the capacity to hold the yearly production of POME from the mill.
ADDITIONALITY Please explain which additionality arguments apply to the project: (i) there is no regulation or incentive scheme in place covering the project (ii) the project is financially weak or not the least cost option (iii) country risk, new technology for country, other barriers (iv) other	The relevant barriers for the project activity are elaborated below. **Technical barriers:** • A composting plant is technologically more advanced than an unmanaged, shallow solid waste disposal site for EFB and the treatment of POME in anaerobic lagoons. Besides the large surface area required, key equipment like windrow turners are required along with a large work force. • INDUSPALMA has no previous experience with the operation of an aerated composting plant and will require new skills and know-how for its proper operation. • The technology/equipment is not available in the country and will be imported (major suppliers with well-proven technology are located in USA or Europe). The supplier will provide adequate training courses to the operators. However, the specific know-how to produce quality compost from EFBs will have to be developed by INDUSPALMA on a trial and error basis. **Barrier due to prevailing practice:** • The current practice is dominated by the disposal of EFBs in a landfill and by the treatment of POME in anaerobic lagoons without methane recovery. Those solutions are financially more attractive (no investment required) and lead to higher emissions of CO2e. • The aerated composting project is a first of its kind in rd. The current practice is dominated by the disposal of EFBs in a landfill and by the treatment of POME in anaerobic lagoons without methane recovery. **Other Barriers:** • Market barriers: The fertilizer market for palm plantations is dominated by the chemical type. Bioorganic fertilizer uses is non-existent and little is known on its benefits on the palm trees' yield. The project proponent will make use of the total compost production for their own plantation as no market exists/or has being developed for the type of organic compost involved in the project activity. • National Policies: There is presently no Government regulations or policies in place to ban landfill of EFBs or to recover methane from anaerobic lagoons in the palm oil industry. It is in compliances with the

	local and National regulations in place. Thus, there is no incentive for project promoter for investing in technologies, which reduces GHG emission into the atmosphere.
SECTOR BACKGROUND Please describe the laws, regulations, policies and strategies of the Host Country that are of central relevance to the proposed project, as well as any other major trends in the relevant sector. Please in particular explain if the project is running under a public incentive scheme (e.g. preferential tariffs, grants, Official Development Assistance) or is required by law. If the project is already in operation, please describe if CDM/JI revenues were considered in project planning.	The proposed project activity is not required by any law in the Dominican Republic; neither will it use any public incentive scheme. The proposed project activity will comply with all applicable laws and regulations in the country, including Law 64-00 on Environment and Natural Resources. The project is not operational, and CDM revenues have been considered since the early stages of project planning.
METHODOLOGY Please choose from the following options: For CDM projects: (i) project is covered by an existing Approved CDM Methodology or Approved CDM Small-Scale Methodology (ii) project needs a new methodology (iii) projects needs modification of existing Approved CDM Methodology For JI projects: (iv) project will use a baseline and monitoring plan in accordance with Appendix B of the JI Guidelines and further JISC guidance (v) project will use Approved CDM or CDM Small-Scale Methodology	(i) The project is covered by an existing Approved CDM Small Scale Methodology: **AMS-III F. Avoidance of methane production from decay of biomass through composting.**

C. FINANCE

TOTAL CAPITAL COST ESTIMATE (PRE-OPERATIONAL)	
Development costs	US$ million (Feasibility studies, resource studies, etc.)
Installed costs	US$ million (Property plant, equipment, etc.)
Land	US$ million **– if the associative centre is implemented**
Other costs (please specify)	US$ million (Legal, consulting, etc.) – **legal aspects of included farms.**
Total project costs	Total Project Costs are currently being developed at the feasibility stage.

SOURCES OF FINANCE TO BE SOUGHT OR ALREADY IDENTIFIED	
Equity Name of the organizations, status of financing agreements and finance (in US$ million)	INDUSPALMA DOMINICANA and its corporation MERCASID Group
Debt – Long-term Name of the organizations, status of financing agreements and finance (in US$ million)	Local bank and international banks
Debt – Short term Name of the organizations, status of financing agreements and finance (in US$ million)	NA
SOURCES OF CARBON FINANCE Name of carbon financiers other than any of the World Bank carbon funds that your are contacting (if any)	Non defined yet
INDICATIVE CER/ERU/VER PRICE PER tCO_2e *Price is subject to negotiation. Please indicate VER or CER preference if known.*	Suggested CER price at Euros 11
TOTAL EMISSION REDUCTION PURCHASE AGREEMENT (ERPA) VALUE	
A period until 2012 (end of the first commitment period)	271.161 Euros
A period of 10 years	857.662 Euros
A period of 7 years	530.129 Euros

D. EXPECTED ENVIRONMENTAL AND SOCIAL BENEFITS

LOCAL BENEFITS E.g. impacts on local air, water and other pollution.	(i) **Impacts on local air.** The project will drastically reduce the odours coming from the current utilization of the POME oxidation lagoons as well as open decomposition of the EFB. (ii) **Impacts on water.** The project will reduce the organic load contents of waters currently being discharged after the existing lagoon system, therefore reducing potential fresh water pollution in the area. Any leachate generation will be controlled by re-used on the composting stockpile. (iii) **Impacts on soil:** Renewable and natural resource (compost) will be used on the plantation, switching total or part of the imported chemical fertilizer, with associated improvements in soil conditions
GLOBAL BENEFITS Describe if other global benefits than greenhouse gas emission reductions can be attributed to the project.	(i) Reduction of the global chemical fertilizer production and its related impacts. (ii) The project activity is on the way of a tendency to contribute to the sustainability of the palm oil industry as defined by Roundtable of Sustainable Palm Oil. See www.rspo.org
SOCIO-ECONOMIC ASPECTS	
What social and economic effects can be attributed to the project and which would not have occurred in a comparable	**Social contributions** The project revenues create an opportunity to continue supporting the development of employee and near-by communities under the framework of

situation without that project? Indicate the communities and the number of people that will benefit from this project. *About ¼ page*	social corporate responsibility that Induspalma has in place. **Economic contributions** (i) New jobs opportunities associated to the operation of the composting facility. (ii) A stable offer of good compost for Induspalma's palm plantation.
What are the possible direct effects (e.g. employment creation, provision of capital required, and foreign exchange effects)? *About ¼ page*	(i) **Employment creation.** It is expected that the project operation will create a stable number of new jobs at Induspalma, contributing to providing stability to a number of families in the area, (ii) Creation of new employment opportunities. New personnel will be required (1) For the operation at the composting site (2) For the transport and application of compost in the plantation (iii) **Provision of capital.** CER revenues are very important to support the cost structure of the proposed project, since there will be no initial associated revenues in the composting facility. (iv) **National Economy.** During the first crediting period (2008-2014), the displacement of chemical fertilizer will contribute in a positive impact on the balance of payments for the country, since in Dominican Republic chemical fertilizers are imported.
What are the possible other effects (e.g. training/education associated with the introduction of new processes, technologies and products and/or the effects of a project on other industries)? *About ¼ page*	(i) **Training/education effects.** Personnel that will work in the new facility and in plantations will be trained in the use of compost and its production. It is likely that other stakeholders in the country will benefit in terms of the educational and research aspects of compost development. Induspalma have had extension projects together with the Universidad Nacional Pedro Penriquez Ureña in developing early stages of this project. (ii) **Transfer new technology and development of know-how.** It is the first composting plant of agricultural waste in the Dominican Republic, which will lead the way for 'best waste management practice' in the palm oil industry, and other industries in the country. (iii) **New product.** Compost from EFB will be available as a new product for the plantation, creating awareness of zero waste management concepts and development of biomass passives in agro-industry.
ENVIRONMENTAL STRATEGY/ PRIORITIES OF THE HOST COUNTRY A brief description of the project's consistency with the environmental strategy and priorities of the Host Country *About ¼ page*	The project is in line with the environmental priorities and policies in the Dominican Republic.

PROGRAM OF ACTIVITIES (POA) IDEA NOTE

Name of POA : Methane capture and its applications in pig farms' self-consumption and in associative activities, coordinated by APORLI

Date submitted : June 30, 2008

E. PROJECT DESCRIPTION, TYPE, LOCATION AND SCHEDULE

OBJECTIVE OF THE PROGRAM OF ACTIVITIES (POA) *Describe in not more than 5 lines*	The POA is aimed at : (1) improving the environmental conditions of several municipalities in the Dominican Republic, through a productive use of the pig manure through its conversion into biogas; (2) reducing the energy costs faced by small pig farmers; (3) reducing GHG emissions of the DR; and (4) contribute to the global initiative on climate change.
POA DESCRIPTION AND PROPOSED ACTIVITIES *About ½ page*	The POA will try to use the manure of a universe of 20,000 mothers and 160,000 growing animals, property of up to 400 small and medium farms, for the production of biogas and posterior application of this in the production of electric energy at the farm level. These farmers are concentrated in and around Licey al Medio, a municipality of Central Cibao region of Dominican Republic. Each farmer normally tries to divide his inventory of animals in two places, as a health prevention measure: mother's farm and growing animals farm. Taking into account the fact that animals are normally split, there are nearly 300 locations in the area of influence of the **Asociacion de Porcicultores de Licey al Medio (APORLI)** [5]. APORLI is open to provide other farmers with the necessary support to undertake the necessary investments for the installation of biogas technologies, bringing the total expected number of activities to nearly 400 locations in the province.. The electric generation will support food milling, water pumping and lighting; and the residues of bio-digestion will be composted and applied to crops of farmers (auto consumption) or sold to other farmers in the area.
TECHNOLOGY TO BE EMPLOYED *Describe in not more than 5 lines*	The implementation will be based on a selection of technologies proven in the area (bio-digestors, electric energy generators, etc.). Although the design of the activities has not yet being finalized, it is also possible that the final selection may involve the development of small centres for gas processing (filtering, compressing and utilization), associated to productive use applications of electrical energy; issue that will be decided at the feasibility level...
TYPE OF PROGRAM	
Greenhouse gases targeted $CO_2/CH_4/N_2O/HFCs/PFCs/SF_6$ *(mention what is applicable)*	**CO_2.** **CH_4.**
Type of activities Abatement/CO_2 sequestration	Abatement.
Field of activities *(mention what is applicable)* *See annex 1 for examples*	Waste management and agriculture
LOCATION OF THE POA	
Country	Dominican Republic
City	Licey al Medio

[5] APORLI: Association of Pig farmers of Licey al Medio. Municipality of Licey al Medio. Santiago. Dominican Republic.

Brief description of the location of the project *No more than 3-5 lines*	Licey al Medio and Moca are two municipalities of Cibao Central, a region with high population density and high animal production. In fact, these small municipalities produce more than 75% of national pig production and more than 80% of national egg production, generating an important environmental impact of this small to medium size farms.
PROGRAM ENTITY	
Name of the PROGRAM ENTITY	**Asociacion de Porcicultores de Licey al Medio (APORLI)**
Role of the PROGRAM ENTITY	**a. Project Operator X** b. Owner of the site or project c. Owner of the emission reductions d. Seller of the emission reductions e. Project advisor/consultant f. Project investor g. Other, please specify:_____
Organizational category	a. Government b. Government agency c. Municipality d. Private company e. Non Governmental Organization f. Other, please specify: **Farmer's association**
Contact person	Felix Ramos, President
Address	
Telephone/Fax	809-580-8040
E-mail and web address, if any	
Main activities *Describe in not more than 5 lines*	Aporli is an association of pig producers, facilitates several layers of support and coordination amongst farmers, as well as provision of credit, technical support for the development of the sector in the target area of influence
Summary of the financials *Summarize the financials (total assets, revenues, profit, etc.) in not more than 5 lines*	Available upon request
Summary of the relevant experience of the Project Participant *Describe in not more than 5 lines*	Aporli has operated several environmental programs through the support of both local and international governmental and bilateral organizations, In the area of management of waste streams, Aporli has promoted the installation of different types of bio-digesters in pig farms, gaining an important insight into the application of such technologies in the pig farming sector in the country.
EXPECTED SCHEDULE	
Earliest project start date *Year in which the plant/project activity will be operational*	2009
Estimate of time required before becoming operational after approval of the PIN	Time required for financial commitments: 6 months Time required for legal matters: 3 months Time required for construction: 3 months
Expected first year of CER/ERU/VERs delivery	2010
Project lifetime *Number of years*	28 years (Programmatic initiative)
For CDM projects: Expected Crediting Period *7 years twice renewable or 10 years fixed* For JI projects: Period within which ERUs are to be earned *(up to and including 2012)*	7 years twice renewable.

Current status or phase of the project *Identification and pre-selection phase/opportunity study finished/pre-feasibility study finished/feasibility study finished/negotiations phase/contracting phase etc. (mention what is applicable and indicate the documentation)*	Identification and pre-selection phase.
Current status of acceptance of the Host Country *Letter of No Objection/Endorsement is available; Letter of No Objection/Endorsement is under discussion or available; Letter of Approval is under discussion or available* *(mention what is applicable)*	No contacts have been established with the National CDM Office in the country, although the project identification phase of this POA is being discussed with the local DNA.
The position of the Host Country with regard to the Kyoto Protocol	Has the Host Country ratified/acceded to the Kyoto Protocol? YES, 2001 Has the Host Country established a CDM Designated National Authority / JI Designated Focal Point? YES, 2004

F. METHODOLOGY AND ADDITIONALITY

ESTIMATE OF GREENHOUSE GASES ABATED/ CO_2 SEQUESTERED *In metric tons of CO_2-equivalent, please attach calculations*	Annual (if varies annually, provide schedule): 33,215 tCO_2 equivalent in 2009, 66,400 t CO2 equivalent in 2010 and from then on 132,800 t CO2 equivalent for subsequent years Up to and including 2012: 365,215 tCO_2-equivalent Up to a period of 10 years: 1,162,015 tCO_2-equivalent Up to a period of 7 years: 763,615 tCO_2-equivalent The following table presents estimations on a per farm basis on the estimated emissions reductions to be achieved The estimated emissions reductions for each representative CPA is 0.91 ton CO2 equivalent per day to a total of 332 ton CO2 equivalent per year. Estimations for different time horizons are based on the supposition that the technology deployment path will include 100 systems for 2009, 200 for 2010 and then the full 400 systems deployed in 2011. **It is expected that over the life of the POA, a total of 3,552,415 tons of CO2 equivalent will be avoided.**
BASELINE SCENARIO CDM/JI projects must result in GHG emissions being lower than "business-as-usual" in the Host Country. At the PIN stage questions to be answered are at	The baseline for the applications is conforming to treatment of waste streams in oxidation lagoons. It is likely that the current practice will continue to be the preferred systems for treatment in the absence of the proposed POA.

least: • Which emissions are being reduced by the proposed CDM/JI project? • What would the future look like without the proposed CDM/JI project? *About ¼ - ½ page*	
ADDITIONALITY Please explain which additionality arguments apply to the project: (i) there is no regulation or incentive scheme in place covering the project (ii) the project is financially weak or not the least cost option (iii) country risk, new technology for country, other barriers (iv) other	(i) The proposal of environmental norms for the pig farming and processing, introduced by SEMARENA to the sector, do not require the production of biogas from manure management systems.. (ii) The offer of credit is very limited to the agricultural sector in the Dominican Republic. APORLI can access to a credit for CPA replications, introducing the link with CDM as additional justification for the loan. (iii) The common practice for disposal of excreta is open lagoon, being this the cheapest way to dispose of generated material flows in the pig production.. (iv) Pig farming in the DR is facing important challenges emerging from the signing of a free trade agreement (DR-CAFTA), by which tax reductions to imported pig meat will be reduced over time, while at the same time local farmers will be required to be in compliance with additional environmental standards; which will in turn required additional investment on the side of the farmer. CDM resources are expected to play an important role in maintaining the local producers competitive in this scenario of risk management for competitiveness.. (v) The small and medium pig growers have received information on biogas, including few demonstrative applications; but no large application and dissemination of the technology is observed in the area.
SECTOR BACKGROUND Please describe the laws, regulations, policies and strategies of the Host Country that are of central relevance to the proposed project, as well as any other major trends in the relevant sector. Please in particular explain if the project is running under a public incentive scheme (e.g. preferential tariffs, grants, Official Development Assistance) or is required by law. If the project is already in operation, please describe if CDM/JI revenues were considered in project planning.	**Law 64-00 on Environment and Natural Resources**: Legal framework for SEMARENA, describes the methodology to create and apply norms for management of environmental and natural resources issues. **Law 57-07 on Incentives for Renewable Energies.** This creates incentives to be applied through a procedure (Reglamento) in stage of formulation. **Trends.** Reinforcement of associative activities and increase of efficiency in all activities of pig production, in order to mitigate the effects of DR-CAFTA. The POA and associated activities is not running under a public incentive scheme and is not required by any law. The project is not already in operation.
METHODOLOGY	(ii) The POA activities will be using approved small-scale methodologies such as AMS I.A, AMS. III.D or AMS III.H.

G. FINANCE

TOTAL CAPITAL COST ESTIMATE (PRE-OPERATIONAL)	
Development costs	0.2 US$ million (Feasibility studies, resource studies, etc.)
Installed costs	9.0 US$ million (Property plant, equipment, etc.)
Land	1.0 US$ million **– if the associative centre is implemented**
Other costs (please specify)	0.2 US$ million (Legal, consulting, etc.) – **legal aspects of included farms.**
Total project costs	**10.4 US$ million**
SOURCES OF FINANCE TO BE SOUGHT OR ALREADY IDENTIFIED	
Equity Name of the organizations, status of financing agreements and finance (in US$ million)	
Debt – Long-term Name of the organizations, status of financing agreements and finance (in US$ million)	
Debt – Short term Name of the organizations, status of financing agreements and finance (in US$ million)	
SOURCES OF CARBON FINANCE Name of carbon financiers that your are contacting (if any)	
INDICATIVE CER/ERU/VER PRICE PER tCO_2e *Price is subject to negotiation. Please indicate VER or CER preference if known.*	Euro 10
TOTAL EMISSION REDUCTION PURCHASE AGREEMENT (ERPA) VALUE	
A period until 2012 (end of the first commitment period)	3,652,150 €
A period of 10 years	11,620,150 €
A period of 7 years	7,636,150 €

Please provide a financial analysis for the proposed CDM/JI activity, including the forecast financial internal rate of return for the project with and without the Emission Reduction revenues. Provide the financial rate of return at the Emission Reduction price indicated in section "Indicative CER/ERU/VER Price". DO NOT assume any up-front payment from the Carbon Finance Unit at the World Bank in the financial analysis that includes World Bank carbon revenue stream.

Provide a spreadsheet to support these calculations. The PIN Financial Analysis Model available at www.carbonfinance.org is recommended.

Financial model is currently being developed

H. EXPECTED ENVIRONMENTAL AND SOCIAL BENEFITS

LOCAL BENEFITS E.g. impacts on local air, water and other pollution.	(iv) **Impacts on local air.** The project will drastically reduce the odours of local air; improving the quality of life in the region. Additionally, the pollution result of Diesel combustion for electric energy will be reduced. (v) **Impacts on water.** The project will improve the flows of water of Cibao Central, which are seriously contaminated as consequence of inappropriate management of decantation's lagoons.

GLOBAL BENEFITS Describe if other global benefits than greenhouse gas emission reductions can be attributed to the project.	Avoidance of methane emissions into the atmosphere
SOCIO-ECONOMIC ASPECTS	
What social and economic effects can be attributed to the project and which would not have occurred in a comparable situation without that project? Indicate the communities and the number of people that will benefit from this project. *About ¼ page*	**Social contributions** (iii) The implementation of the project will contribute to social peace of the area; the small municipalities of Licey al Medio and its neighbour Moca produce more than 75% of national pig production and more than 80% of national egg production, which have generated high levels of contamination in air and water, reaching violent moments, when some protesters have died. **Economic contributions** (iv) New jobs opportunities associated to the management of different systems (biogas, electric energy for self-consumption and possible associative centre for filtering, compressing and commercialization). (v) A stable offer of good compost for organic agriculture, which is an important activity in the north area of the Dominican Republic.
What are the possible direct effects (e.g. employment creation, provision of capital required, and foreign exchange effects)? *About ¼ page*	(v) **Employment creation.** It is expected to create more than 100 direct employments. These personnel will be required (1) to operate, monitor and give maintenance to the system to be installed in pig farms, and (2) to be evolved in compost production. This labour force will work in specific farms, in engineering companies and in research entities. (vi) **Provision of capital.** The investment is estimated over 9.0 US$ million, to be collected from pig farmers, APORLI, local banks and in advance payment of CERs. This capital will be expended in biogas system, electric generators, electric installations, etc.; it can be regarded as an example of key credit for the necessary reengineering of Dominican agriculture. (vii) **Foreign exchange effects.** It is expected that a reduction of fossil fuels imports for electric energy, with consequent preliminary positive effect in foreign exchange.
What are the possible other effects (e.g. training/education associated with the introduction of new processes, technologies and products and/or the effects of a project on other industries)? *About ¼ page*	(iv) **Training/education effects.** All the personnel that work in the pig farms will be trained, because all of them influence the manure characteristic, which define the appropriate yields in the biogas production. The yield of biogas production depends on around 15 indicators (maximum of detergent, microelements, antibiotics, etc). The PDD will include a strategy to link this programmatic project with different levels of education; from basic education to universities, as corporative responsibility of APORLI; in fact, some universities' student have been developing research in biogas with support of this Association. (v) **Effects in metal-mechanic and electric engineering services industries.** The metal-mechanic industry and electric engineering companies of Cibao Central will have a new market for 28 years, replicating the CPA model. The metal-mechanic industry grew beside the pig and broilers production, reaching an interesting level of development.
ENVIRONMENTAL STRATEGY/ PRIORITIES OF THE HOST COUNTRY A brief description of the project's consistency with the	**The POA proposed is in line with the environmental strategies and priorities of the country. In terms of** Environmental Strategy of the Dominican Republic, the project aims at reducing the environmental impacts from agricultural waste streams. In terms of environmental priorities, the POA is in line with the current efforts of assisting producers to modify and improve their

environmental strategy and priorities of the Host Country *About ¼ page*	environmental targets in response to DR- CAFTA.

5. Conclusions and Recommendations

This paper has presented a compilation of activities carried out during the technical support provided the Dominican Republic's National CDM Office while implementing the actions of the Energy and Climate Change Initiative, Phase IV, executed by OLADE / University of Calgary with support from the Canadian International Development Agency.

The main conclusions and recommendations of this work are:

- Since 2004, the Dominican Republic has been developing its climate change institutions through a Presidential Decree that created the National CDM Office as a sub–component of the Environmental Management Office within the Ministry of the Environment and Natural Resources.

- From 2004 to the present, the actions of that office were strengthened by the leadership of its members and associated consultants, and the vital support provided by a number of organizations and friendly countries that helped develop strategic projects and studies within the framework of assistance in formulating CDM projects.

- In late 2008, a new set of presidential accords was published that transformed the government's institutional structure in response to the Climate Change and CDM issues in the country. Decree No. 601–08 created the National Climate Change and CDM Council, which sent a signal to give priority and hierarchy to the matter in question and helped to better define the roles of the National Climate Change Office, the National CDM Office, and to structure the National Carbon Account.

- The authorities named through Decree No. 582–08 and entrusted with developing these institutional arrangements, were appointed to the high ranks of Secretaries and Under–Secretaries of State, thereby providing these new thematic authorities with greater sphere of influence and action. This is important in both the domestic and international levels considering the year of international negotiations in the Bali Agenda and the new climate change negotiations made *en route* to COP15 in Copenhagen during late 2009.

- Although no national CDM approval procedures have been made explicitly public, the National CDM Office has an internal evaluation procedure that arose from the support given the country in 2006 by a group of consultants who recommended a set of criteria and procedures for said approval, thereby at least proposing the approval structure. This structure effectively applies the procedural development principles of transparency, scope and efficiency. We recommend that the present authorities of the National Climate Change and CDM Council renew their discussion of this set of proposals and that, as soon as possible, they publish them and inform the national community of the CDM project approval procedures, both with regard to letters of no objection and formal letters of national approval.

- The criteria for assessing CDM project contributions to sustainable development seem to be taking the form of check lists and/or the so–called "positive" lists of project types for which there is no objection, taking into account a valuation of high–output target sectors such as renewable generation in a country that is highly dependent on fossil fuels, clean production in the agro–industrial sector, etc.

- It would seem that the national approval system is maturing and seeking to go beyond this type of positive lists (very commonly used in different countries) towards checklists that require a qualitative or quantitative assessment against certain criteria and/or indicators. Along the way, the National CDM Office should clearly define the scope to be taken into account on a continual basis, and as it seeks to deepen this type of criteria, it should consistently include diverse institutions that have an important say in the type of criteria to be used. We recommend that it is important to strengthen this national dialog when deciding how to assess contributions to sustainable development, but also to be pragmatic in establishing a feasible set of criteria that will enable the development of national approval activities, given a foreseeable increase in demand by project developers.

- Currently, only one CDM project is registered in the CDM, which is an electric generation project activity based on wind power. Four more projects are in the CDM validation and advancement cycle, two of which relate to wind generation, another to sanitary landfill management, and the other to the cement industry. It would appear that the wind sector is one of the first winning sectors locally in the CDM, as it may also be in other countries for which the CDM has been a useful instrument in technology transfer for power generation.

- The Dominican Republic has an interesting potential for CDM projects and programmes of activities that should be supported and strengthened in the near future. On the short term, the portfolio of CDM projects in the pipeline represents a potential of 1.9 million tCO_{2e} per year, and the potential midterm portfolio may come to represent nearly 1.5 million additional tCO_{2e} per year. This shows that the contribution of the CDM to the country's sustainable development is very significant, primarily in sectors such as power generation, fuel substitution, efficient energy use, wastewater management from agro–industry and livestock production, and in other sectors of great importance.

- This work has made it possible to visualize the potential for developing CDM Programmes of Activities, and during the National CDM Workshop, we were able to identify a number of promising programmatic–type projects in sectors such as energy and clean production. In matters of energy, it is possible to develop rural hydroelectric programmes, fuel changeovers for industries and transportation fleets, and lamp substitution programmes. With regard to clean production, opportunities were identified in the areas of manure and waste management.

- One very important action that requires continuity has to do with removing barriers to identifying potential CDM programme coordinating entities. The nature of these programmes requires a long–term commitment on behalf of the involved agencies, so it is essential to develop suitable participatory measures and business plans to take advantage of this potential.

- Effectively structuring the National Climate Change and CDM Council is key to mobilizing actors and sending the right signals for project development. We should bear in mind that although the CDM seeks to contribute with real, verifiable, long–term emissions reductions that will contribute to climate stabilization goals, on a country level the goals of development and sustainability in the path of development are fundamental. The structure of this National Council in the Dominican Republic offers a unique opportunity to combine both types of goals and to foster the dynamics of local sustainability while making a real contribution to the global mitigation goals.

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Annex I

Criteria for Assessing Contributions to Sustainable Development for CDM Projects under Consideration by the National CDM Office

Draft CRITERIA FOR ASSESSING CDM PROJECTS[6]

All CDM projects submitted to the Designated National Authority should contribute to the sustainable development of the Dominican Republic and to mitigating global climate change by reducing emissions or sequestering greenhouse gases. Projects will be evaluated in accordance with the following sustainability criteria:

Environmental

1. Environmental protection
2. Biodiversity conservation
3. Sustainable land use
4. Coastal marine resource protection
5. Mitigating air, water and soil pollution
6. Watershed protection

Socioeconomic

7. Reducing fossil fuel imports
8. Increasing renewable energy resource use
9. Improving energy efficiency
10. Clean technology transfer
11. Generating jobs
12. Enhancing the community's quality of life

Indicators should be identified and developed for measuring these criteria.

[6] Developed by Christiana Figueres and Mariana Awad in 2006.

Annex II

Dominican Evaluation Procedures for CDM Projects under Consideration by the National CDM Office

PROJECT EVALUATION PROCEDURES[7]

CHAPTER I
MODALITIES FOR SUBMITTAL

Greenhouse gas reduction projects seeking National Approval under the CDM may be submitted to the Designated National Authority at two levels of preparation.

1- **Presenting a PIN to Request Comments and a Letter of No Objection:** The National Climate Change Office grants interested parties the option to submit their projects at the PIN (Project Idea Note) level with the less formal purpose of requesting comments and a Letter of No Objection for the project. Comments may be requested in order to receive technical recommendations for improving the methodological elements of formulated projects. Non–objection is a statement by the National Climate Change Office, based on the information provided, that a project in the formulation process contains no characteristics that would make it ineligible for the Clean Development Mechanism.

2- **PDD Submittal to Request National Approval by the Designated National Authority:** This modality relates to the procedure agreed upon in order to comply with the requirement established by COP – VII. It determined that it was mandatory for projects to have a letter of approval from the Designated National Authority for the Clean Development Mechanism of the country where the project is located.

CHAPTER II
NON–OBJECTION APPLICATION

1. Project proponents should submit a PIN (Project Idea Note) in Spanish, in both printed and electronic form, on the PIN form authorized by the National Climate Change Office.

2. The CDM Office will enter the project information in its database within two days.

3. The National Climate Change Office Director will designate a technician responsible for the preliminary project evaluation within fifteen days.

4. The responsible technician will check that the project seeks to reduce greenhouse gases, and will offer technical recommendations to improve methodological elements in project formulation.

[7] Developed by Christiana Figueres and Mariana Awad in 2006.

5. Should the project be potentially eligible for the CDM, the Director of the National Climate Change Office will issue a Letter of No Objection, including the technical recommendations of the technician.

6. If the project is potentially eligible for the CDM, the Director of the National Climate Change Office will issue a letter informing the proponent.

7. The Letter of No Objection is a statement by the National Climate Change Office that, based on the information provided, a project in the formulation process contains no characteristics that would make it ineligible for the Clean Development Mechanism.

8. The Letter of No Objection is also an invitation for the proponent to continue preparing the project and to carry it to the PDD level.

CHAPTER III
NATIONAL APPROVAL APPLICATION

1. Proponents should submit a completed PDD (Project Design Document) in both printed and electronic form. The PDD may be submitted in Spanish, in order to be evaluated by the National Climate Change Office. If approved, the proponent should translate the PDD into English for the international procedures.

2. The proponent should submit a copy of the environmental authorization (permit / license) issued by the Environmental Management Department of the Ministry of the Environment and Natural Resources, as per the domestic regulations.

3. The proponent should present proof of contribution to the country's sustainable development as per the following criteria that apply to the respective project:
    a. Environmental protection
    b. Biodiversity conservation
    a. Sustainable land use
    b. Coastal marine resource protection
    c. Mitigating air, water and soil pollution
    d. Watershed protection
    e. Reducing fossil fuel imports
    f. Increasing renewable energy resource use
    g. Improving energy efficiency
    h. Clean technology transfer
    i. Generating jobs
    j. Enhancing the community's quality of life

4. The CDM Office will enter the project information in its database within a period of two days.

CHAPTER IV
EVALUATION AND APPROVAL

1. The National Climate Change Office Director will designate a technician responsible for evaluating the project within thirty days.

2. For the evaluation process, the technician will use the CDM Project Evaluation Form of the National Climate Change Office.

3. During the evaluation period, the project proponent should promptly respond to all questions asked and clarifications requested. These consultations may be made by telephone or in writing. The proponent should answer questions in writing when received in written form.

4. If the nature of the project is such that additional technical input is deemed necessary, the National Climate Change – CDM Office may turn to previously identified external advisors, consultants, inter–agency agreements, or *ad honorem* volunteers.

Evaluation Findings

As an outcome of project evaluation, it may fall under any of the following categories:

1. Further Information Requested

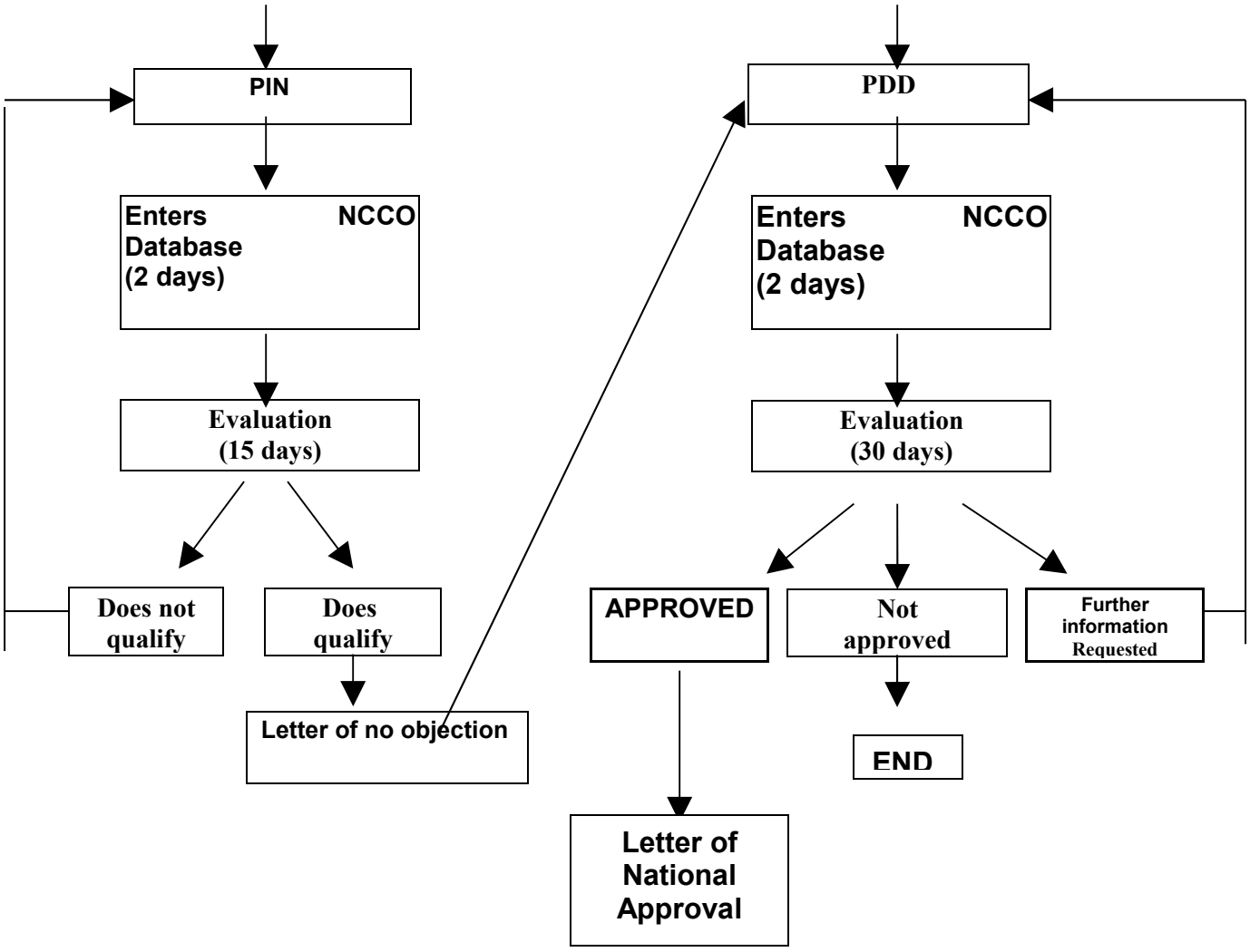
- These projects require expanding the scope of the data on the situation presented.
- Proponents will have ten working days to submit the requested information. If this request is answered satisfactorily and on time, the evaluation will continue.
- If the requested data is not provided within the stated period or does not include what is asked for, the project will be shelved and the proponent will be notified of this decision in writing. In this case, projects may be reconsidered if proponents submit them on a later date with all the requested information.

2. Not Approved

- When projects fail to contribute to the country's sustainable development or to include measures for reducing, preventing or sequestering greenhouse gas in the given terms, they will be returned to their proponents indicating that they cannot be processed and explaining the reasons for their non approval.

3. Approved

- Projects meeting all requirements and criteria will be given a recommendation of approval. The Director of the National Climate Change and CDM Office will remit this recommendation to the Ministry of the Environment and Natural Resources, for it to issue the Letter of National Approval in its capacity as the Designated National Authority.
- Once the National Approval has been obtained, project proponents may contract an Operational Entity for project validation and the other international–level procedures.


PIN
Enters NCCO Database (2 days)
Evaluation (15 days)
Does not qualify
Does qualify
Letter of no objection
PDD
Enters NCCO Database (2 days)
Evaluation (30 days)
APPROVED
Not approved
Further information Requested
END
Letter of National Approval

PROJECT EVALUATION FORM

1. Project Name: _____

MARK THE RIGHT ANSWER WITH AN "X"

2. Justification

Are the objectives clear? YES (__) NO (__)

3. Is it compatible with all applicable laws in the Dominican Republic?

YES (__) NO (__)

If not, explain the reasons:

_____
_____

4. Does it have the environmental permit / license?
YES (__) NO (__)

5. Does it have all other permits needed for project execution?

YES (__) NO (__)

6. Is it consistent with the national sustainable development criteria?

Environmental protection
YES (__) NO (__)

Biodiversity conservation
YES (__) NO (__) Not applicable (__)

Sustainable land use
YES (__) NO (__) Not applicable (__)

Mitigating air, water and soil pollution
YES (__) NO (__) Not applicable (__)

Watershed protection
YES (__) NO (__) Not applicable (__)

Coastal marine resource protection
YES (__) NO (__) Not applicable (__)

Reducing fossil fuel imports
YES (__) NO (__) Not applicable (__)

Increasing renewable energy resource use
YES (__) NO (__) Not applicable (__)

Improving energy efficiency
YES (__) NO (__) Not applicable (__)

Clean technology transfer
YES (__) NO (__) Not applicable (__)

Generating jobs
YES (__) NO (__) Not applicable (__)

Enhancing the community's quality of life
YES (__) NO (__) Not applicable (__)

7. Feasibility of implementation:
Does the national institutional capacity exist for project approval?
YES (__) NO (__)

8. Does the proponent have the institutional / corporate capacity to execute the project?
YES (__) NO (__)

Observations:
_____
_____

9. Baseline: Assumptions and information. It is reasonable / acceptable?
YES (__) NO (__)

Observations: _____
_____

10. Does it use an approved methodology?
YES (__) NO (__)

11. Is the methodology applied correctly?
YES (__) NO (__)

12. Additionality: does it use an approved additionality tool?
YES (__) NO (__)

13. Are there any negative environmental effects?
YES (__) NO (__)

Describe _____
_____

14. Are measures taken to mitigate them?
YES (__) NO (__)
Describe: _____
_____

15. Monitoring: will suitable approved techniques be used?
YES (__) NO (__)

Observations: _____
_____

Conclusions:
_____
_____
_____
_____
_____

EVALUATOR'S RECOMMENDATION

Approve: _____ Request further information: _____ Do not approve: _____

Evaluator: _____

Evaluation date: _____

RECOMMENDATION OF THE NATIONAL CLIMATE CHANGE OFFICE DIRECTOR

Approve: _____ Request further information: _____ Do not approve: _____

Recommendation date: _____

Annex III

Draft Regulations for National Approval of CDM Projects under Consideration by the National CDM Office

Standards for the
National Approval of Projects
that are Eligible for the Clean Development Mechanism[8]

[8] Developed by Christiana Figueres and Mariana Awad in 2006.

Acronyms Used

COP	Conference of the Parties
CERs	Certified Emissions Reductions
OE	Operational Entity
GHG	Greenhouse Gases
EB	Executive Board of the Clean Development Mechanism
NCCO	National Climate Change Office
CDM	Clean Development Mechanism
KP	Kyoto Protocol
UNFCCC	United Nations Framework Convention on Climate Change

Introduction

The Dominican Republic is part of the United Nations Framework Convention on Climate Change,[9] which aims to stabilize anthropogenic greenhouse gas (GHG) concentrations in the atmosphere at a level that would prevent dangerous interference with the climate system. To achieve this goal, the Kyoto Protocol[10] was developed to establish quantified obligations for greenhouse gas emissions reductions for developed countries included in its Annex B[11]. The Protocol establishes that these reductions shall be real (verifiable) and be achieved primarily through efforts made domestically by the Annex B countries.

However, the Protocol also provides for flexibility mechanisms that will serve, complementarily, to achieve the reductions that were established. The flexibility mechanisms enable: exchanging allowable emissions quota between Annex B countries; joint implementation project among Annex B countries and countries with economies in transition;[12] and the Clean Development Mechanism (CDM), which contemplates GHG mitigation or sequestering projects in developing countries such as the Dominican Republic. The CDM serves three purposes: to help developing countries achieve sustainable development; to contribute to achieving the purpose of the Convention;[13] and to help developed countries meet their quantified emissions reduction obligations.

Article 12 of the Kyoto Protocol states that "Certified emission reductions obtained during the period from the year 2000 up to the beginning of the first commitment period[14] can be used to assist in achieving compliance in the first commitment period," thereby creating a new opportunity for developing countries to generate projects to reduce and/or sequester GHG emissions.

This is a window of opportunity for countries such as the Dominican Republic to attract investments for their forestry, industrial and energy sectors through projects that fulfil the CDM procedures and modalities and can sell the environmental services of certified GHG emissions reductions to Annex B Countries.

In order to lend continuity to CDM implementation in the country and comply with the decision of the Seventh Conference of the Parties (COP VII),[15] this paper offers criteria by which the National Office for Climate Change / Clean Development Mechanism (NOCC–CDM), in its capacity as the Designated National Authority (DNA), will approve projects submitted to the CDM Executive Board for registration.[16]

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9 Ratified by law in 1997.

10 Ratified by law in 2002.

11 These countries are Germany, Australia, Austria, Belgium, Bulgaria, Canada, the European Community, Croatia, Denmark, Slovakia, Slovenia, Spain, United States of America, Estonia, the Russian Federation, Finland, France, Greece, Hungary, Ireland, Iceland, Italy, Japan, Latonia, Liechtenstein, Lithuania, Luxembourg, Monaco, Norway, New Zealand, the Netherlands, Poland, Portugal, the United Kingdom of Great Britain and North Ireland, the Czech Republic, Rumania, Sweden, Switzerland, and Ukraine.

12 Economies in transition are Bulgaria, Croatia, Slovakia, Slovenia, Estonia, the Russian Federation, Hungary, Lithonia, Lithuania, Poland, the Czech Republic, Rumania, Ukraine.

13 The ultimate goal of the Convention is to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Official text: United Nations Framework Convention on Climate Change, Article 2.

14 This is understood as the period from 2008 to 2012.

15 Marrakech, October 29 to November 10, 2001.

16 Decision CP7 / D17, section F "Participation Requirements" sub–sections 28, 29 and 30, and sub–section G "Validation and Registration", sub–section 40ª – COP VII Decisions.

1. Rationale and Assumptions Used

In order to achieve the maximum possible benefits from using the CDM, the Dominican Republic should enter the market with very high–quality projects, especially considering that the country has a high level of perceived risk on international markets.

In CDM terms, quality means well–formulated projects that comply with all the modalities and procedures that were established by the Parties[17] for the CDM and that contribute to the sustainable development of the country. Two essential elements for ensuring quality are to develop strong domestic capacities for project formulation, on the one hand, and national approval on the other. However, high quality has its costs, so success depends on how well the Dominican Republic manages the *balance* between project quality and project cost.

As for approval, the Designated National Authorities of each country play a crucial role in defining sustainable development criteria for CDM projects. These criteria should promote beneficial externalities associated with projects such as watershed protection, biodiversity conservation, energy efficiency, and employment generation. This situation arose from the COP VII accords, whose decision 17 / CP7 established the requirement that among the project validation and registration processes, the designated operational entity should receive from the project participants a written approval of voluntary participation issued by the Designated National Authority of each interested Party, including the host party's confirmation that the project activity contributes to its sustainable development.

In view of the above, this paper takes into account the following assumptions:

- ***Eligibility:*** *The eligibility criteria for CDM projects are developed by the Conference of the Parties to the United Nations Framework Convention on Climate Change and/or by the Meeting of the Parties to the Kyoto Protocol.*

- ***CDM Modalities and Procedures:*** *The elements relating to the modalities and procedures that are applicable to the CDM (see Table 2) will not necessarily be evaluated by the DNA when determining the project's contribution to sustainable development. These elements should be assessed by an Operational Entity (OE) that is duly accredited, appointed by the COP and contracted by the person responsible for the project, in accordance with what is defined in Decision 17 of the Seventh Conference of Parties (2001).*

Table 1. Modalities and Procedures for CDM Projects that are Evaluated by the Operational Entity

1. Calculating emissions reduction / capture by the project	**2. Designing the monitoring plan**
• Explaining how the project activity will result in additional GHG reductions	• Selecting the monitoring methodology
• Defining the system borders	• Including all greenhouse gas sources and sinks
• Selecting the approach used to choose the baseline methodology.	• Greenhouse gas emissions capture and reduction measurement, estimation, calculation, and registration practices

[17] In the context of the Convention and the Protocol, the Parties are all countries that have signed and ratified these instruments.

• Selecting the baseline methodology	• Gathering and recording the data needed to determine the baseline scenario
• Calculating emissions in the baseline scenario	**3. Environmental Impacts**
• Calculating emissions in the project scenario	**4. Comments from Stakeholders**
• Identifying and calculating associated leakage	**5. Sources of financing**
• Selecting the crediting period	**6. Requirements of Participation by the Parties**

- **Scope of the National Approval:** National project approval will focus on evaluating project contributions to the country's sustainable development.

- ***Contribution to Sustainable Development:*** *The contribution to sustainable development will be evaluated by the country, taking into account its national priorities and particular environment, pursuant to what is recognized by Decision 17 of COP–VII, that it is the host Party's prerogative to confirm that CDM project activities contribute to achieving sustainable development.*

- **Efficiency:** The project approval process should minimize transaction costs and be as speedy as possible within its obligation to ensure high–quality projects. For this purpose, there should be clear, pre–established, quantifiable approval criteria and procedures, and fixed, predetermined terms for participation by those responsible for projects, applied with sufficient professional skill in evaluation and approval.

- **Transparency:** The criteria and procedures that are developed should be clear, publicly available, and as simple as possible, based on relevant technical arguments, and approved with the participation of all representative sectors.

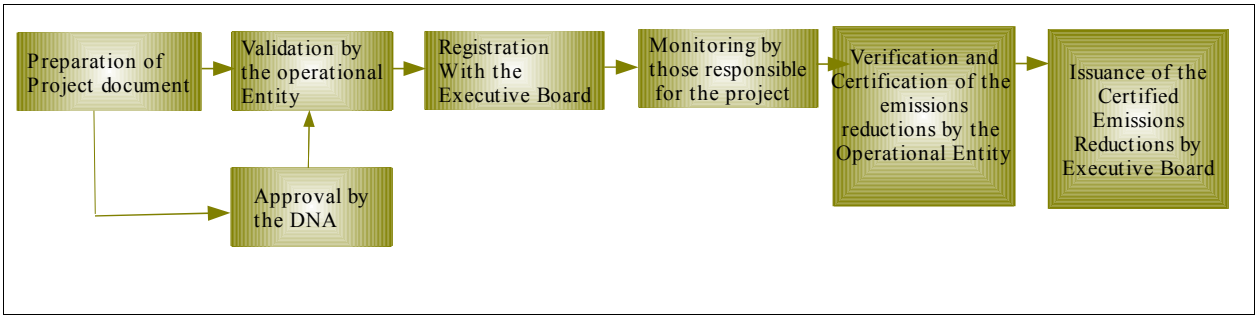
- **Stability:** It is necessary to reduce process uncertainties and vulnerabilities in cases of regime changes. CDM projects are typically long term, so the stability of all rules is essential to promote their participation in the market and the confidence of foreign investors in Dominican projects. Accordingly, it is highly important to ensure the long–term stability of evaluation criteria and procedures.

- **Participation:** All interested sectors –both public and private– should participate in defining game rules and in decision making, in order to ensure the greatest benefits possible for the country's sustainable development and minimize opportunities for behaviours such as rent seeking and excessive barriers and requirements that increase transaction costs.

2. Clean Development Mechanism Project Cycle

According to the decisions made by the Seventh Conference of Parties of the United Nations Framework Convention on Climate Change, in order for Clean Development Mechanism projects to obtain Certified Emissions Reductions, they should follow the steps listed below:

Figure 1: CDM Project Cycle



Source: Figure based on the Marrakesh Accords at the Seventh Conference of Parties for Climate Change.

Step No. 1: According to Figure 1, the first step is project formulation and design (see Annex 1). This task is entrusted to the person responsible for the project or its promoter, who should follow certain parameters and requirements established by the Designated National Authority and the international agencies of the Kyoto Protocol and the Clean Development Mechanism.

Step No. 2: The Project Design Document is submitted to the Designated National Authority (DNA), which determines whether the project contributes to the country's sustainable development based on preset criteria. If it does, the project receives a Letter of Approval from the DNA and can move on to the following stages.

Step No. 3: The person responsible for the project or its promoter should contact an **Operational Entity**,[18] to perform the project **validation**. The **Operational Entity's validation** consists of a project assessment by an independent entity, which determines whether it complies with the modalities and procedures established by the international agencies for CDM projects.

Step No. 4: If the Operational Entity decides that the project complies with the requirements of the Clean Development Mechanism, it draws up a validation report and proceeds to request its **registration** with the CDM Executive Board.[19] One of the requirements established for project validation and subsequent remittal to the Executive Board is for it to have the Letter of Approval from the DNA. The **Executive Board** will register the project, unless three Board members request project revision.

Step No. 5: Monitoring consists of the follow–up and registration that the person responsible for the project should perform for the greenhouse gas emissions that the project reduces and/or

[18] Operational Entities are accredited by the CDM Executive Board and designated by the COP / MOP of the United Nations Framework Convention on Climate Change.

[19] The CDM Executive Board is a ten–member body in charge of supervising the Mechanism, which operates under the authority of the Conference of the Parties / Meeting of the Parties of the Climate Change Convention / Kyoto Protocol.

captures. This follow–up should be conducted in accordance with the monitoring plan drawn up beforehand in the project formulation and validated by an Operational Entity.

Step No. 6: Verification consists of reviewing the calculations and procedures of the person responsible for the project to quantify its greenhouse gas reductions. This review or verification is performed by an **Operational Entity**, which may be the same one that did the project validation beforehand, but only in the case of small–scale projects. In the case of large–scale projects, the Operational Entity that performs the verification must be different from the Operational Entity that validates it.[20] Once the Operational Entity has verified that the greenhouse gas reduction is correct, it proceeds with the **certification** of these amounts.

Step No. 7: The **Operational Entity** will issue the certification in writing, which constitutes an application to the **Executive Board**, so that if there is no objection,[21] the latter can proceed to **issue** the **Certified Emissions Reductions (CERs).** Said CERs constitute the final assets that can be negotiated by the person responsible for the project in order to obtain additional financial resources.

3. Approval Procedure

The National Climate Change Office's official participation in the CDM project cycle takes place when processing the approval of the Designated National Authority. As mentioned above, this approval is an essential requirement to complete the validation procedure and proceed to register the project with the CDM Executive Board.

There are two modalities for submitting projects to the Designated National Authority:

a– Presenting a PIN to Request Comments and a Letter of No Objection: The National Climate Change Office grants interested parties the option to submit their projects at the PIN (Project Idea Note) level with the less formal purpose of requesting comments and a Letter of No Objection for the project. Comments may be requested in order to receive technical recommendations for improving the methodological elements of formulated projects. Non–objection is a statement by the National Climate Change Office that, based on the information provided, a project in the formulation process contains no characteristics that would make it ineligible for the Clean Development Mechanism. The Letter of No Objection may be requested by stakeholders who wish to reduce any risks perceived by potential investors or project partners.

We must clarify that both the preparation of technical comments and issuance of Letters of No Objection are independent of the official project approval process, and that under no circumstances do they affect this process, whether positively or negatively. Preparing technical comments and issuing Letters of No Objection are services offered by the National Climate Change Office for the sole purpose of improving the quality of Dominican CDM projects and facilitating contact with potential partners and investors, and in no wise compromise their judgment, independence or transparency when submitting these projects to the formal approval process.

[20] Section E of the draft decision annex contained in Decision 17 of COP–VII establishes that Operational Entities shall fulfill one of the following functions in relation to a given CDM project activity: validation or verification / certification.

[21] Section G, D17 / CP 7. "Registration by the Executive Board shall be considered final eight weeks after the date on which the registration request is received by the Executive Board, unless one of the Parties participating in the project activity or at least three members of the Executive Board request a revision of the proposed CDM project activity."

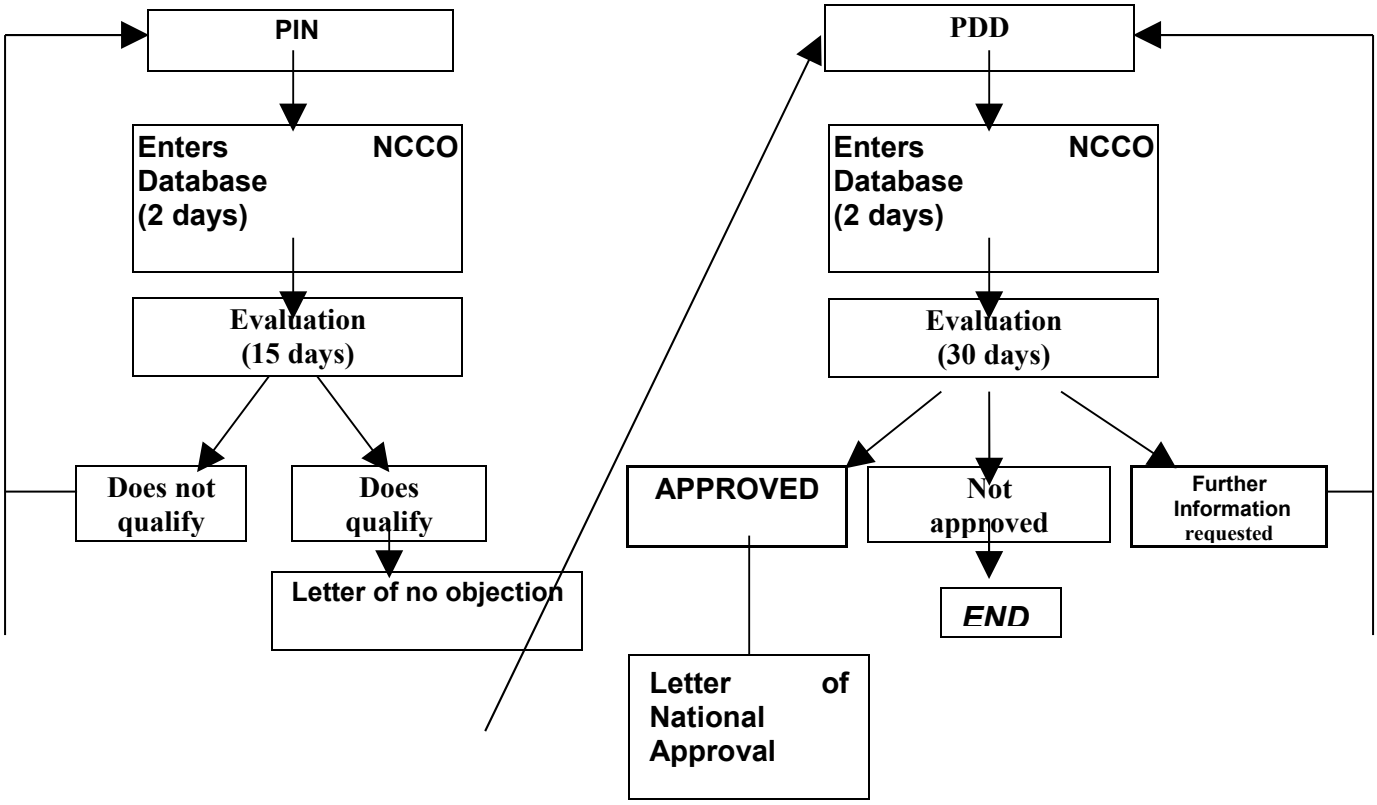
b– PDD Submittal to Request National Approval by the Designated National Authority: This modality relates to the procedure agreed upon in order to comply with the requirement established by COP – VII, which determined that it was mandatory for projects to have a letter of approval from the Designated National Authority for the Clean Development Mechanism of the country where the project is located. It is an internationally stipulated requirement to submit the project fully developed at the PDD (Project Design Document) level. Whether or not a project is approved depends on its contribution to the country's sustainable development. This contribution is determined by applying a set of indicators for criteria that are established beforehand and are made publicly available.

The National Climate Change Office will be in charge of applying these verification criteria, the evaluation and issuing a technical opinion with a recommendation to approve, not approve, or request additional information. The Designated National Authority, namely the Minister of the Environment and Natural Resources, is the level where the Letter of Approval is ultimately signed.

The primary input for this procedure is the data contained on the project presentation form remitted by the proponent and, where necessary, any written clarifications made within the stipulated term.

Figure 3 details the approval process, comment preparation, and issuance of Letters of No Objection for CDM projects on behalf of the National Office for Climate Change / Clean Development Mechanism:

Figure 3: CDM Project Evaluation Flowchart



4. Sustainable Development Criteria

All CDM projects submitted to the Designated National Authority should contribute to the sustainable development of the Dominican Republic and to mitigating global climate change by reducing emissions or sequestering greenhouse gases. Projects will be evaluated in accordance with the following sustainability criteria:

Environmental

1. Environmental protection
2. Biodiversity conservation
3. Sustainable land use
4. Coastal marine resource protection
5. Mitigating air, water and soil pollution
6. Watershed protection

Socioeconomic

7. Reducing fossil fuel imports
8. Increasing renewable energy resource use
9. Improving energy efficiency
10. Clean technology transfer
11. Generating jobs
12. Enhancing the community's quality of life

Indicators should be identified and developed for measuring these criteria by the National Office for Climate Change / Clean Development Mechanism.

5. Developing the Non–Binding Technical Concept

The National Office for Climate Change / Clean Development Mechanism, pursuant to what is stipulated by the Conference of the Parties, reserves the right to make and forward comments to the Operational Entity in charge of project validation.[22] These comments are not necessarily limited to matters relating to project contributions to the country's sustainable development, but rather may refer to methodological issues with the formulation and rationale of proposed project activities.

The methodological matters that may be commented on by the National Office for Climate Change / Clean Development Mechanism are as follow:

1. **Calculating emissions reduction / capture by the project:** The National Office for Climate Change / Clean Development Mechanism may make technical comments on the truth, reliability, transparency, and conservative nature of the emissions reduction / capture

[22] Section G of the annex to decision 17 proposed at the Seventh Conference of Parties establishes that the Operational Entity contracted for validation of the proposed project activity will receive observations within 30 days from Parties, stakeholders and non–governmental organizations that are accredited with the Conference of the Parties regarding the validation requirements, and will make them publicly available.

calculations submitted for the project. Accordingly, the following project formulation elements can be evaluated, confronted and commented on:

- **Explaining how the project activity reduces emissions against the baseline:** The National Office for Climate Change / Clean Development Mechanism may make comments on the rationale for the additionality of the project activities submitted by the project proponent.
- **Defining the system borders:** The National Office for Climate Change / Clean Development Mechanism may comments on whether the borders chosen by the project proponent are advisable.
- **Selecting the approach used to choose the baseline methodology:** The National Office for Climate Change / Clean Development Mechanism may make comments as to whether or not the approach chosen by the project proponent is advisable.
- **Selecting the baseline methodology:** The National Office for Climate Change / Clean Development Mechanism may make comments as to whether or not the methodology chosen by the project proponent is advisable.
- **Calculating emissions in the baseline scenario:** The National Office for Climate Change / Clean Development Mechanism may comment on the procedure for calculating the baseline emissions scenario, including sources of information, emissions factors, uncertainties, and their relation to national policies and norms.
- **Calculating emissions in the project scenario:** The National Office for Climate Change / Clean Development Mechanism may comment on the procedure for calculating the project emissions scenario, including the choice of emissions factors.
- **Identifying and calculating associated leakage:** The National Office for Climate Change / Clean Development Mechanism may comment on leakage identification, description and calculation, including the omission of potential sources of emissions and their inclusion in project emissions balances.
- **Selecting the crediting period:** The National Office for Climate Change / Clean Development Mechanism may comment as to whether or not the accreditation period proposed by the project proponent is advisable.

2. **Monitoring Plan:** The National Office for Climate Change / Clean Development Mechanism may make technical comments on whether or not the monitoring plan adheres to the requirements established by the international bodies of the Clean Development Mechanism and the Designated National Authority.

- **Selecting the monitoring methodology:** The National Office for Climate Change / Clean Development Mechanism may make comments as to whether or not the methodology chosen by the project proponent is advisable.
- **Including all greenhouse gas sources and sinks:** The National Office for Climate Change / Clean Development Mechanism may comment on the identification and selection of greenhouse gas sources and sinks, as controlled by the Kyoto Protocol, to be monitored in the plan.
- **Greenhouse gas emissions capture and reduction measurement, estimation, calculation, and registration practices:** The National Office for Climate Change / Clean Development Mechanism may comment on the methodologies, techniques and practices for measuring, estimating, calculating and recording greenhouse gas emissions, capture and reductions, and on quality control and assurance practices proposed in the monitoring plan.

- **Gathering and recording the data needed to determine the baseline scenario:** The National Office for Climate Change / Clean Development Mechanism may comment on the proposed practices and methodologies for gathering the information needed to determine the baseline scenario.

- **Gathering and recording salient information on project environmental impacts:** The National Office for Climate Change / Clean Development Mechanism may comment on the proposed practices and methodologies for gathering and recording salient information on the environmental impacts of the project.

- **Gathering and recording salient information on contributions to sustainable development:** The National Office for Climate Change / Clean Development Mechanism may comment on the proposed practices and methodologies for gathering and recording salient information on a project's contributions to sustainable development.

3. **Environmental Impacts:** The National Office for Climate Change / Clean Development Mechanism may make technical and legal comments on the environmental impacts of the proposed project activities.

4. **Stakeholder Comments:** The National Office for Climate Change / Clean Development Mechanism may refer to stakeholder comments and to any steps taken in response by those responsible for the project.

5. **Sources of financing:** The National Office for Climate Change / Clean Development Mechanism may comment on the compatibility of the sources of financing involved in the project, in accordance with what is established by the Conference of the Parties with regard to diverting funds from official aid for development.

Annex IV

CDM Contributions to Sustainable Development and National Project Assessment and Approval Procedures in some Countries of Latin America

CDM Contributions to Sustainable Development and National Project Assessment and Approval Procedures in some Countries of Latin America[23]

According to the CDM modalities and procedures, each country that wants to participate in the mechanism should appoint a national authority to be responsible. The main role of the national authority is to authorize the participation of specific entities in a project activity for the mechanism. In the case of a non–Annex B Party,[24] national approval should include a statement that participation in the CDM project activity is voluntary and that the project activity contributes to the country's sustainable development. Likewise, the Letter of National Approval should include a statement that the country has ratified the Kyoto Protocol.[25]

Based on these elements, over the past years the DNAs in non–Annex B countries have developed assessment procedures and criteria on which to ground the statement that a given project activity contributes to sustainable development. Since it is the project host country's prerogative to decide on that contribution, CDM application has not imposed any limits on the type of sustainable development benefits that a CDM project can have.

Accordingly, although this freedom to identify and develop their own criteria is positive from a developing country's perspective, it can have certain negative repercussions because the lack of specific guidelines and requirements in this regard, primarily the lack of minimum sustainable development standards, opens the door to projects that do not necessarily make a significant contribution or are not compatible with the national development goals, but are approved anyway due to competition among host countries to attract investments.[26] Considering that a contribution to sustainable development is one of the main purposes of the CDM, the above situation may lessen to some extent the benefits that host countries could obtain from it.

For this reason, sustainable development assessment in the CDM context can be considered an important tool for identifying projects that can generate the greatest positive local impacts, thereby maximizing the benefits of participating in the mechanism.

The Clean Development Mechanism's Contribution to Sustainable Development[27]

A CDM project can have multiple benefits for the host country, including the following:

- Increase in energy efficiency and conservation
- Transfer of technology and financial resources
- Local environmental benefits relating to local GHG mitigation or the use of cleaner technologies
- Environmental side benefits such as the public health benefits associated with improved air quality
- Poverty alleviation and enhanced social equity as an outcome of generating new sources of income and employment
- Sustainable energy production

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[23] Developed by Oscar Coto and Liana Morera for OLADE's Energy and Climate Change Initiative in 2005.

[24] The term is used as defined in the Kyoto Protocol. "Party" refers to a participant in the Kyoto Protocol.

[25] The Letter of National Approval made up of these parts covers the requirements established in paragraphs 28, 29, 20, 33, and 40 (a) and (f) of the CDM Modalities and Procedures. For further information, consult: CDM Executive Board, 2005 (Glossary of CDM Terms), CDM Executive Board, 2004, Annex 6.

[26] Thorne and Raubenheimer (2001), cited by UNEP Risø, 2004.

[27] Most concepts and proposals in this section were taken from UNEP Risø, 2004.

- Capacity building in the public and private sectors
- Other indirect benefits, such as contributing to rural development, access to energy sources, education, and health.

The above shows that it is possible to identify criteria that reflect linkages between a CDM activity and national development priorities (reducing poverty, generating employment, economic growth, health, etc.), for example, which for non–Annex B countries may be more pragmatic than simply analyzing environmental impacts, as is currently the case in El Salvador. The proposal in this case is to conduct a study based on national development goals. This review makes it possible to cover not one but three dimensions of sustainable development – environmental, social and economic– considering that the criteria relating to intra–generational equity, including addressing poverty, have a key role in this concept.

In view of the contribution that a well–designed CDM project can make in meeting the goals and priorities in national, local and/or sector development plans and social development strategies, the major challenge in assessing sustainable development for a CDM project is to identify indicators that reflect this intervention. Accordingly, identifying and selecting significant criteria for these plans and strategies may be a way to minimize the level of effort associated with the assessment process and therefore its cost, which in many cases is perceived as very high and unaffordable given the national circumstances in some developing countries.

Selecting sustainable development criteria and indicators

In the process of selecting sustainable development criteria and indicators in the context of a CDM project, three aspects should be taken into account:

- The national criteria that are chosen should be meaningful at the project level, so that they will be represented by appropriate project indicators. Table 1 gives a few examples of sustainable development criteria that have shown to be operational at the project level.
- The sum total of all project impacts on sustainable development should be positive.
- Although the sum of all project impacts may be positive, there could be trade–offs between indicators, or cases where impacts on one or more of the evaluated indicators are irreversible. Therefore, evaluation rules and procedures should consider these situations.

Table 1. Operational criteria for sustainable development at the CDM project level

Sustainable Development Dimension	Criteria
Economic	**Generating jobs**
	Reducing the economic load on energy imports
	Generating financial returns for local entities
	Positive impacts on the balance of payments
	Technological changes
	Cost–Effectiveness
Social	**Increased equity**
	Increased access to energy
	Gender
	Education and Training
	Health
	Poverty Alleviation

	Legal Structure
	Governance
	Information distribution
Environmental	**GHG Reductions**
	Local environmental benefits (reduced air, water and soil pollution, and waste disposal)
	Use of non–renewable resources
	Use of renewable resources
	Biodiversity

Source: UNEP Risø, 2004.

The next step, once the evaluation criteria have been identified, is to select indicators or verifiers to help determine the positive or negative ways in which each criterion is affected by the project. Moreover, the indicators that are chosen should not only reflect a project's positive or negative impact on sustainable development, but also be easy to use and interpret, to ensure the transparency and objectivity of the evaluation process.

Therefore, a given group of verifiers and indicators should be selected, which should be:

- Complete, i.e., adequately indicate the degree to which all of the sustainability goals and sustainable development dimensions are taken into account;
- Operational, so that they will make sense and be meaningful for the review: Accordingly, the group of indicators should strike a balance between good coverage, adequate definition, lack of ambiguity, and relevance for policymaking;
- Divisible, i.e., decisions on a given impact can be assessed separately, using fewer indicators for each sub–assessment;[28]
- Non redundant, in order to avoid double accounting of consequences;
- Minimal, in order to reduce costs and efforts; The availability of up–dated, good quality information should play an important role in determining the requirements.

The following table shows a few examples of indicators selected by non–Annex B countries for CDM project assessment.

Table 2. Criteria, indicators and units of measure to assess CDM project contributions to sustainable development in developing countries

Dimension / Criterion†	Indicator	Unit de Measure††	
		Quantitative	Qualitative
Economic		**Quantitative**	
Cost–Effectiveness	Net costs Financial flows	Financial costs Social cost	
Growth	Income generation	Net surplus	
Employment	Employment	No. of jobs created or lost	
Investments	Activity in the sector of energy, industry, agriculture, etc.	Foreign currency requirement (investment amount and distribution)	

[28] This takes into account the fact that decision–makers or, in this case, evaluators have their own preferences and opinions.

Dimension / Criterion†	Indicator	Unit de Measure††	
		Quantitative	Qualitative
Sectoral development	Access to technology Creation of markets	Physical indicators such as energy supply and demand, economic indicators, energy efficiency and availability, and energy security	
Technological changes	Innovation Learning	Number of technologies Price of technologies and maintenance cost Cost behaviour over time	
Environmental		**Quantitative**	
Climate Change	GHG emissions	GHG emissions	
Air pollution	Local air pollution, particulates Health benefits	Emissions of SO_2, NO_x and particulates Monetary value of health benefits	
Water	Rivers, lakes, irrigation, drinking water	Flows in physical units Damages in physical and monetary units	
Soil	Exposure to pollutants	Emissions in physical units Damages in physical and monetary units	
Residuum	Waste dumping and disposal	Emissions in physical units Damages in physical and monetary units	
Non–renewable resources	Fossil fuels	Physical units	
Biodiversity	Specific species	Number, monetary value	
Social		**Quantitative**	**Qualitative**
Legal Structure	Ownership regulations, rights	Regulation, fees Land distribution	Outline primary rules and rights of ownership
Governance	Execution and enforcement of international agreements	Agreement administration and compliance cost Project management Number of violations and sanctions	Characteristics of formal and informal authorities Quality of the bureaucracy Contracting for compliance
Data distribution	Formal and informal institutions, markets and networks	New institutions created Number of agents (companies, households, public sector, NGOs, etc.) involved	Description of networks, members, roles, and interests
Equity	Distribution of costs and benefits, revenue distribution, local participation	Costs and benefits, measured in economic units, by stakeholder, income segment, gender, geographic area, etc. Gini index Income generation adjusted by distribution	Physical distribution of local stakeholders and their participation Gender issues
Poverty Alleviation	Income or capacities generated for the poorest sectors	Change in the number of persons below the overall poverty line Income generated for sectors with less resources Energy services (measured in units) provided for poor sectors	Effect on poverty–related factors: food, education and health

Dimension / Criterion†	Indicator	Unit de Measure††	
		Quantitative	Qualitative

† In practice, the selected group of criteria should be small and consistent with the project, so the process of assessing a specific project may require an initial step of selecting relevant criteria from a larger list, depending on the nature of the project. (see the Colombian case in Section II.2.3.). A.N.

†† In many cases, it is necessary to consider qualitative indicators, in order to capture impacts that may be important but not quantifiable, especially in the case of social criteria. Actually, it is hard and sometimes impossible to obtain information on certain social indicators, so selection should be done carefully, taking into account the availability of and access to information. A.N., based on UNEP Risø, 2004.

Source: UNEP Risø, 2004.

Positive versus negative impacts in CDM projects

Although it may be obvious that the sum of all positive project impacts should over–compensate for its negative impacts, managing exchanges between one and the other may be complex. For this purpose a few approaches or rules of thumb have been proposed, which may be used when assessing CDM projects.

The "shadow" project:[29] This proposal suggests that if project construction and/or operation results in serious environmental damage, it should ensure that a "shadow" project is implemented for environmental mitigation or improvement, whose assessed outcomes should have at least the same value as the damages caused.

This concept can be extended to the economic and social fields, understanding that any adverse effect (social, economic or environmental) caused by a CDM project should be compensated by investing in activities that generate social, economic or environmental benefits of equal or greater magnitude.

Furthermore, the method may be used to assess projects with few impacts other than GHG reductions, and to include project requirements like training, disseminating information, etc., which may improve some of the social criteria relating to education, or else using locally–produced inputs in order to improve the criteria relating to local development and employment generation. In practice, some countries have already used this approach to maximize the benefits of their projects. In Colombia, for example, some hydropower projects have considered allocating part of the certified emissions reductions to conservation investments in the upper parts of the watersheds that supply them.

Safe Minimum Standards (SMS):[30] This focus suggests that project damages to ecosystems should not harm the "safe minimum standards" for resource stocks, defined as the lowest levels at which an ecosystem remains viable. The principle of the method is to "prevent reductions in the natural capital stock below the safe minimum standard identified for each component of this stock unless the social opportunity costs of doing so are 'unacceptably' large."[31] The sustainability indicator in this case reflects whether the safe minimum standard has been violated for any type of resource.

National CDM Project Evaluation and Approval in non–Annex I Countries: A few Experiences

[29] Pearce *et al*, 1990, cited by UNEP Risø, 2004.
[30] Ciriacy–Wantrup, 1952, and Bishop, 1978, cited by UNEP Risø, 2004.
[31] Hanley *et al,* 1977, cited by UNEP Risø, 2004.

This section reviews the procedures and criteria used by some of the Latin American environmental authorities to assess CDM project contributions to national sustainable development. The choice of countries is solely to illustrate different perspectives and procedures, and mentioning them does not imply greater or lesser success in terms of placing projects on the market or how many projects there are in the project flow. As mentioned in earlier CDM studies, the development of institutional arrangements for the mechanism in the countries of the region has not necessarily reflected the current number of projects.[32]

[32] For further information, consult Coto and Morera, 2004.

Uruguay

Uruguay has one of the most elaborate project review and approval procedures in Latin America, due not only to its assessment requirements and criteria, but also to the number of groups or institutions that participate in the process.

To obtain national approval for a project, interested parties must submit an application letter to the DNA's operational unit, in this case the Climate Change Unit of the Ministry of Housing, Land–Use Planning and Environment, which reviews the information, registers the project and forwards it to a Technical Advisory Committee for review and evaluation. This committee is made up of technical representatives of the Ministries of Environment, Livestock, Foreign Relations, Economy and Finance, Energy, Industry and Mining, and Agriculture and Fishing, and by representatives of the productive, academic and non–governmental sectors. The assessment report prepared by this committee is sent to the National Climate Change Board, made up of executives from those same ministries. This board decides on project approval and sends this recommendation to the Ministry of Housing, Land–Use Planning and Environment based on the committee's information and the project's background data. If approved, this ministry in turn issues the Letter of National Approval.

The requirements for entering the country approval process are many, including:

- An application letter
- The Project Development Document (PDD)
- An Environmental Impact Assessment if the project is deemed to have significant negative environmental and/or socioeconomic impacts, and the Environmental Pre–Authorization
- A written statement from the proponent, establishing the project's contribution to the country's sustainable development
- Detailed information on any stakeholder comments regarding the CDM project or activity, including any observations received during the consultation procedures or hearings, and the proponent's comments on these observations
- A document indicating the project's legal and administrative structure, any legal provisions that apply to the project, and all permits required
- A magnetic or digital record of the consultation or public hearing process

In order to obtain national approval, projects should comply with the existing legal and regulatory framework, whether environmental (permits, licenses, concessions, and authorizations required by law) or non–environmental. They should also have their Environmental Impact Assessment and Environmental Pre–Authorization, where applicable, evidence of having duly completed the consultation processes, and finally evidence of contributing to sustainable development.

For this purpose, the criteria for the DNA to assess that contribution were identified in the National Strategy Studies (NSS).[33] The criteria are grouped according to the three sustainable development dimensions mentioned above (economic, social and environmental), to which are added a group of public criteria and an isolated restriction criterion for nuclear energy projects.[34] Likewise, the NSS developed a grading system, on a scale of –1 to 1, that assigns a value to each of the identified criteria or variables, some evaluated qualitatively and others quantitatively. Table 3 details the evaluation variables selected for each of the four groups of criteria. Table 3.1

[33] National Strategy Studies, 2003a.

[34] The document CDM Modalities and Procedures (UNFCCC Conference of the Parties, 2001 – decision 17 / CP.7) recognizes that Annex 1 Parties should abstain from using CERs generated by nuclear units to fulfill their emissions reduction commitments.

shows an example of the grading system for two variables, one quantitative and the other qualitative.

Table 3. Evaluation Criteria and Indicators in the Uruguayan CDM Project Assessment System

Evaluation Criteria	Indicator
Environmental Criteria	
Use of renewable energy	Quantitative
Impact on energy consumption	Quantitative
Impact on air quality at the project location	Qualitative
Impact on water resources in terms of quality, quantity and efficiency of use	Qualitative
Soil use (impacts on the quality and degree of erosion and degradation prevention)	Qualitative
Protection of biodiversity	Qualitative
Risk of environmental emergencies	Qualitative
Social Criteria (measures the project's positive effects on the country's social development)	
Contribution to the net generation of employment	Quantitative
Impact on the incomes of the low–resource population	Quantitative
Contribution to high–technology capacity building	Qualitative
Contribution to technological self–sufficiency (use of innovative technologies that are locally maintained and managed)	Qualitative
Impacts on the local population: - On support - On habits	Qualitative
Economic Criteria	
Contribution to micro–economic sustainability (indicates project feasibility and long–term sustainability or IRR)	Quantitative
Contribution to economic sustainability (in terms of project goods and services for the overall economy, which also ensures project feasibility and long–term sustainability – Economic IRR)	Quantitative
Contribution to sustainability in the balance of payments	Quantitative
Contribution to fiscal sustainability	Quantitative
Political Criteria	
Degree of citizen involvement in project development and/or follow–up	Qualitative
Degree of participation by local authorities in project development and/or follow–up	Qualitative

Source: The authors, based on the National Strategy Studies, 2003a.

Table 3.1. Evaluation System applied to two Variables used by the Uruguayan CDM Project Assessment System

VARIABLE: Impact on the income of the low–resource population	
IPBR = 100*($IPBR_p$ / IT_p – $IPBR_b$ / IT_b)	
IPBR	% of net revenues from low–income sectors compared to total revenues
$IPBR_p$	Income generated by low–resource sectors during the project cycle
IT_p	Total income generated during the project cycle
$IPBR_b$	Income generated by low–resource sectors in the baseline scenario
IT_b	Total income generated in the baseline scenario

Scale	%
–1	–100 %
–0.5	–50 %
0	0 %
0.5	50 %
1	100 %

VARIABLE: Impacts on the sustenance of the local population	
Scale	**Unit**
–1	The project actions have a significant negative impact on the principal sources of sustenance for the local population
–0.5	The project actions have a slightly negative impact on the principal sources of sustenance for the local population
0	No changes are seen in the sources of sustenance for the local population
0.5	The project actions have a slightly improve the principal sources of sustenance for the local population
1	The project actions have a significantly improve the principal sources of sustenance for the local population

Source: The authors, based on the National Strategy Studies, 2003a.

Peru

One of the novel characteristics of the Peruvian evaluation system is that the procedure[35] is an integrated ISO 9001 and 14001 system conceived to facilitate the national statement of a project's contribution to sustainable development, based on the findings of an inter–institutional committee. The system's standardization also sought to ensure:[36]

- National approval within no more than 45 days
- A transparent process to maximize public and private involvement
- Efficient assessment in terms of sustainable development
- Adequate project dissemination among local stakeholders

This procedure begins with an application by the interested party to the Executive Secretary of the *Consejo Nacional Ambiental* (CONAM), which is Peru's Designated National Authority for the CDM. CONAM's Climate Change Unit receives it for review and convenes an ad–hoc committee,[37] which is entrusted with issuing an opinion and recommendation on the project.

[35] CONAM P–34. *Procedimiento para la Aprobación de Proyectos MDL*.

[36] UNEP Risø, 2004.

[37] Made up of one representative of the competent sector accredited by the *Comisión Nacional de Cambio Climático* (CNCC), one FONAM representative, 1 or 2 specialists in environmental impact assessments, where applicable, or 1 or 2 experts on the type of project presented, one private sector representative accredited by the

Meanwhile, the project is remitted to the respective sector (energy, forestry, etc.) and to the *Fondo Nacional del Ambiente*, for both of them to assess it against the appropriate criteria (see Table 3).

CONAM also visits the area where the project is to be developed, to hear the opinion of the local community. A report of this visit is prepared, including the opinion of the official responsible for the evaluation, on the activity's contribution to sustainable development. Based on this information and that supplied by the other entities, the ad–hoc committee evaluates the project and submits a recommendation to CONAM's Executive Secretary, which issues the Letter of National Approval if the report is favourable.

The criteria established by the Peruvian Designated National Authority for assessing contributions to sustainable development are of a general nature, albeit with a strong environmental component. However, the assessment does take into account the project's relationship with the community and its consistency with the existing legal framework, both sectoral and national. In any case, the country still has no set parameters or indicators to measure a project's importance for Peru's sustainable development.[38] Table 4 details these criteria and the entity that is responsible for each component of the assessment.

Table 4. Criteria for Assessing Sustainable Development in CDM Projects in Peru by Responsible Institution

Sector / Institution:	Evaluation Criteria
The competent sector issues an opinion on the following:	• Approved Environmental Impact Assessment or statement that it is not applicable to the case • Project compatibility with sector policies • Viability of the technologies to be use
FONAM, as the financial arm of the National Authority, verifies	• Whether the project has sufficient economic and financial information for subsequent evaluation by the Operational Entity†
CONAM, in its role as the National Authority, gives an opinion based on the criteria established in the Project Evaluation Procedures (PR–04):	• Consistency with CONAM's quality policy and environmental policy • Coherence with the environmental goals • Coherence with the legal framework • Project relationship with the local community • Existence of a baseline, additionality criteria, monitoring protocol, and other requirements of the Project Development Document

† The sole objective of this part of the evaluation is to determine the project's financial additionality, a concept referred to in the discussion on additionality. Since the DNA's current strategy is only to comment on CDM requirements, the possibility of eliminating this criterion from the national evaluation process is being discussed.
Source: National Strategy Studies, 2003, Chapter 4, CDM Institutional Arrangements in Peru.

The evaluation criteria regarding the eligibility requirements for a CDM project, i.e., the existence of a baseline, additionality, monitoring and verification protocol, and other requirements for the Project Development Document (PDD) are mentioned here, although according to the

CNCC, one representative of the NGOs, one representative of the *Agencia Peruana de Cooperación Internacional*, one Ministry of Foreign Relations representative accredited by the CNCC, the head of CONAM's Climate Change Unit, and one *Proinversión* representative.

[38] National Strategy Studies, 2003. Annex 4, Institutional Arrangements for the CDM in Peru.

procedural document, assessing these requirements will not result in a value judgment being issued. However, the DNA may use the findings of that evaluation to give recommendations to the project owners.

Colombia

Colombia is another country in the region that developed a procedure where the criteria for assessing contributions to sustainable development transcend the purely environmental dimension. Intervening in this procedure is an inter–institutional technical committee called the *Comité Técnico Intersectorial de Mitigación*, made up of three permanent members –the coordinator of the *Oficina Colombiana de Mitigación de Cambio Climático* (OCMCC, the operational unit of the Designated National Authority that in this case is the Ministry of the Environment, Housing and Territorial Development), the director of Urban Development and Environmental Policies of the National Planning Department, and the director of the *Instituto Colombiano para el Desarrollo de la Ciencia y la Tecnología* (Colciencias)– in addition to thematic members who are invited to sessions depending on the type of project being evaluated.

This committee acts as a consultative entity, since review of the documentation and the technical report and opinion on project contributions to the country's sustainable development is prepared by the OCMCC. Lacking comments from the committee, the DNA issues a written notice of its decision.

As for the assessment criteria, the Colombian authority defined four overall principles that cover both the environmental aspects of projects and their respective impacts, and the social, economic and technological aspects, thereby encompassing a broader spectrum of sustainable development. Table 5 details these principles, the requirements and/or specific criteria identified for each principle, and the verifiers given to assess compliance.[39] These indicators are qualitatively scored as "complies" or "does not comply" and in no case make it possible to assign a value to a project's contribution.

Table 5. Principles, Requirements, Criteria, and Verifiers used in Colombia to Evaluate CDM Projects

Principle	Criterion (C) or Requirement (R)	Verifier
Compliance with applicable sector regulations	R: The project should comply with all sectoral (non–environmental) regulations in effect	Up–dated registration in the Chamber of Commerce
		Owner's statement of compliance with all applicable regulations
	R: The project should comply with all required environmental permits, licenses, concessions, and authorizations	Copy of administrative acts determined by the competent environmental authority, as needed for the project
		Document from the competent environmental authority determining what permits the

[39] These principles are defined as fundamental truths, essential elements, or basic rules that determine a desirable action. At a second level we find the requirements, considered as necessary conditions to comply with a principle, developed only in the presence of mandatory rules and/or regulations, and criteria or specific objectives, which describe the system's approach to sustainability. The latter represent the properties to be affected by the sustainable development process with regard to each of the dimensions –environmental, social and economic– and their fulfillment is evaluated through verifiers. Ministry of the Environment, Housing and Territorial Development, 2004.

		project requires
	R: Legally demonstrate the right to use, develop or affect a resource	Legal document establishing that right
	R: Guarantee respect for the rights of local ethnic groups and/or traditional communities that may be affected by the project	Signed minutes of prior consultations showing that the groups or communities were consulted regarding the project
	R: Demonstrate that local stakeholders were consulted	Support documents showing the invitation for local stakeholders to make comments, a copy of the minutes, and how the comments were taken into account.
Contribution, pertinence and coherence with state policies and plans	C: The project is part of or is coherent with national, regional, local, or sectoral plans, programmes or projects	The project validly justifies why it contributes to meeting the goals and is coherent with the strategies of national, regional, local, or sectoral policies
Contribution to enhancing the long–term social and economic wellbeing of local communities and society in general	C: The project contributes to enhancing the long–term social and economic wellbeing of local communities	Commitment to investing in health, education, basic sanitation, drinking water, sanitation and environmental conservation and/or social interest housing
	C: The project prioritizes people from local communities when offering jobs in project activities	It has a labour policy that gives priority to hiring workers from local communities
		It envisions training, coaching or educational programmes for workers
	C: It supports and prioritizes the participation and consolidation of local markets related to the project	It has a policy of provisioning goods and services that prioritize local suppliers
		It has a programme of training and support for microenterprise creation and small–scale producers
	C: A positive influence on the trade balance	It exports goods or services and/or substitutes imports
	C: The project has mechanisms to identify social impacts, and defines actions to prevent and mitigate negative ones and reinforce positive ones	It identifies social impacts and establishes management, mitigation and strengthening measures to
		It establishes adequate mechanisms for attending to complaints and claims
P+L implementation systems	C: Uses clean equipment, technologies and processes	Description of equipment, technologies and/or processes, showing greater efficiency than those traditionally used

Source: The authors, based on Ministry of the Environment, Housing and Territorial Development, 2004.

This evaluation process is based on the assumption that all these verifiers apply to the project and that it is up to the owner to state and justify which verifiers are unrelated to the project. Based on this data and any others deemed relevant, the DNA defines and establishes the final list of verifiers that will apply to project assessment.

Brazil

In September 2003, Brazil issued a ministerial decision with the basic requirements and criteria for national CDM project evaluation and approval[40] and confirming the *Comisión Interministerial de Cambio Global del Clima* (CICGC) as the Designated National Authority for the CDM.

The project evaluation procedure follows the regulations established for that Commission,[41] which meets regularly every two months and reviews the information on new projects that are requesting national approval. As of that meeting, the Commission has up to 60 days to issue its decision regarding project approval.

The Commission is inter–institutional in nature and consists of one representative from each of the following ministries: Foreign Relations, Agriculture and Supplies, Transportation, Mines and Energy, Planning, Budget and Management, Environment, Science and Technology, Development, Industry and Foreign Trade, and the Presidency. Specialists may also be invited to attend, depending on the topic to be addressed. The Commission may also form fixed–term task forces to review specific topics and receive the support of public and private institutions and entities representing civil society.

In order to enter the evaluation process, the project owner should submit an application and annex the following documents:

- Project design document
- Document describing how the project contributes to sustainable development, as per the criteria established for that purpose
- Copy of invitations to comment, and comments made by project stakeholders, including:
    - Town hall and city councillors
    - State and municipal environmental bodies
    - Brazilian forum of NGOs and social movements for the environment and development
    - Community associations
    - Public Ministry
- Report of the Operational Entity on the project validation process
- Statement signed by all project participants, saying who is responsible for communicating with the Executive Secretary of the Commission and how, and the date by which they will send the information on the distribution of the CERs issued in each verification
- Documents ensuring compliance with all applicable environmental and labour regulations

As for evaluating contributions to sustainable development, Brazil is one of the countries that developed specific criteria to facilitate this process, along with Uruguay and Colombia. Table 6 details the criteria that were identified and some of the elements taken into account for evaluating them.

[40] *Comisión Interministerial de Cambio Global del Clima* (CICGC), 2003.
[41] Ministry of Science and Technology, 2003.

Table 6. CDM Project Evaluation Criteria in Brazil

Criterion	Elements to be Evaluated
Contributions to local environmental sustainability	Mitigation of local environmental impacts (solid waste, liquid effluents, air pollutants, and others) favoured by the project in comparison with local environmental impacts estimated by the referential scenario.
Contributions to developing labour conditions ad net jobs created	Project's commitment to social and labour responsibilities, health and education programmes, and civil rights advocacy
	Qualitative and quantitative improvements in levels of employment (both direct and indirect) in comparison to the baseline scenario
Contributions to income distribution	Direct and indirect effects on the quality of life for low–income populations, observing the socioeconomic benefits fostered by the project in relation to the baseline scenario
Contributions to training and technological development	Project's degree of technological innovation in relation to the referential scenario, and technologies used in past activities in comparison to those envisioned by the project
	Possibilities to reproduce the technology used, according to its demonstrational impact, origin of equipment, existence of royalties and licenses for technologies, and need for international technical assistance
Contributions to regional integration and to linkages with other sectors	Degree of project integration with other socioeconomic activities in the region where it is carried out

Source: The authors, based on CICGC, 2003.

Chile

The simplicity of Chile's CDM project evaluation and approval procedure is comparable to the Salvadorian procedure. Chile chose not to develop any institutional arrangements for the CDM and designated the Council of Ministers of the *Comisión Nacional de Medio Ambiente* (CONAMA) as the National Authority. In this case, three professionals of CONAMA's Technical Department manage all matters relating to the CDM, among other things, with the support of an Executive Committee made up of one representative from each of the following institutions: Ministry of Foreign Relations, Ministry of Agriculture, CONAMA, Energy Commission, Clean Production Secretariat, and other ministries as projects require.

To obtain National Approval, the project owner or developer must submit a letter of application along with the PDD and a statement of voluntary participation in the CDM. The project is received by the Executive Committee, which reviews it and issues an opinion on its approval. The only requirement that projects must meet to obtain said approval is to have complied with all environmental legislation in effect regarding the Environmental Impact Assessment or the appropriate Sectoral Environmental Permit where an EIA is not required.

With regard to the assessment of contributions to sustainable development, Chile identified no specific evaluation criteria. According to current law, if a project complies with what is established in the Environmental Impact Assessment System, it implicitly meets all requirements for sustainable development in the country.

Conclusions from Annex IV

Assessing CDM project contributions to sustainable development is essential in developing countries, where investment resources are scarce and limited. Accordingly, having evaluation criteria that take in all the sustainable development dimensions is essential to identifying CDM projects that provide the greatest benefit for the country with regard to national development priorities, allocate scarce resources in a cost–efficient way, and thereby maximize the benefits of national participation in the mechanism.

In fact, projects having large positive impacts on the economic, social and environmental contexts may be more attractive to some international investment groups, be better positioned in the market, and eventually generate significant price differentials for those projects and therefore additional benefits for the country as a whole and for project developers in particular.

In the same line of thought, using certain evaluation tools to manage trade–offs among impacts or the existence of negative impacts such as “shadow” projects or activities, may also help to enhance the benefits generated by projects whose initial impacts, while positive, are limited to greenhouse gas reduction.

Evaluation systems based on principles, requirements and criteria that encompass all the sustainable development dimensions and also have compliance checks provide greater backing for institutional decisions, as they allow for more ample, transparent, objective, and affordable procedures. Accordingly, procedures such as those in Uruguay and Colombia show significant strengths.

A similar situation is seen in countries such as Brazil and Peru that, while lacking such a developed process in terms of compliance checks, define a broad evaluation spectrum that goes beyond mere environmental impact considerations and take the opinions of project stakeholders into account when making decisions.

Furthermore, in the context of future discussions about the benefits of the Clean Development Mechanism for non–Annex B countries during the first compliance period, countries that have identified specific sustainable development assessment criteria, that cover not only the environmental but also the economic and social dimensions, will have a comparative advantage over those limiting their decisions to the use of merely environmental assessment instruments such as the Environmental Impact Assessment and the respective permits or licenses.

The joint review of the assessment criteria used by some countries has led us to identify significant convergences in their selection. This shows the close ties that may be found between CDM projects and national development priorities and goals, which in these countries centre on such issues as economic growth, poverty reduction, equity, income distribution, and employment, among others.

Finally, using additional elements in the evaluation process, such as the participation of consultative or decision–making technical committees, as is the case in all of the countries reviewed, provides additional backing for DNA decisions. Even in countries such as Chile, where the evaluation and approval process is limited to complying with current environmental legislation regarding environmental permits, having a technical decision–making committee opens the door to discussion, which to a certain extent makes it possible to introduce additional criteria in the assessment.

Annex V

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