

Kyoto Protocol - Flexibility Mechanisms -

- Through these mechanisms the global economic efficiency of reducing emissions is increased while global greenhouse gas emissions are reduced and thus the overall 5 % reduction target is met.
- The Kyoto Protocol establishes three “mechanisms” for obtaining these credits:
 - International Emission Trading (IET)
 - Joint Implementation (JI)
 - Clean Development Mechanisms (CDM)

Clean Development Mechanisms

- A Clean Development Mechanism will provide credit to Annex 1 countries for financing emissions-reducing or emissions-avoiding projects in Non-Annex 1 countries.



Annex 1 Countries and their targets

Australia 108	Greece 92	Norway 101
Austria 92	Hungary 94	Poland 94
Belgium 92	Iceland 110	Portugal 92
Bulgaria 92	Ireland 92	Romania 92
Canada 94	Italy 92	Russian Federation 100
Croatia 95	Japan 94	Slovakia 92
Czech Republic 92	Latvia 92	Slovenia 92
Denmark 92	Liechtenstein 92	Spain 92
Estonia 92	Lithuania 92	Sweden 92
European Community 92	Luxembourg 92	Switzerland 92
Finland 92	Monaco 92	Ukraine 100
France 92	Netherlands 92	United Kingdom and Northern Ireland 92
Germany 92	New Zealand 100	

Clean Development Mechanisms

- The difference between emissions with the project and emissions as they would have been without the project (baseline emissions) constitute potential Certified Emission Reductions (CERs) under the CDM.



Baseline emissions : 300 tons CO₂
(without the project)



Emissions with the project: 200 tons CO₂

Potential CER: 100 tons CO₂

Main actors in the Project approval **- CDM Executive Board (EB) -**

- The CDM is supervised by an Executive Board (EB), which itself operates under the authority of the Parties
- The EB is composed of 10 members, including one representative from each of the five official UN region (Africa, Asia, Latin America and the Caribbean, Central and Eastern Europe, and OECD), one from the small island developing states and two each from Annex I and non-Annex I Parties

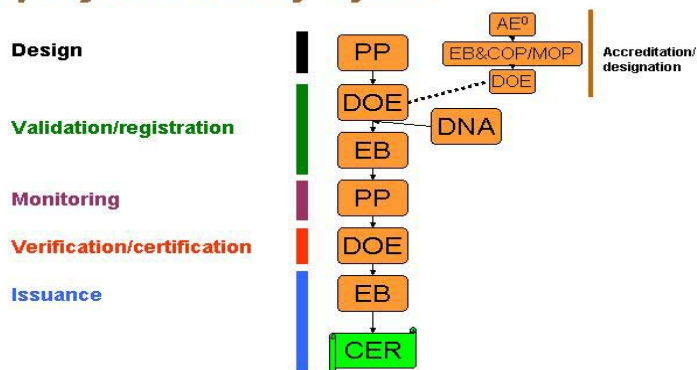
Main actors in the Project approval **- Designated Operational Entities (DOE) -**

- The Designated Operational Entities (DOE) are independent organizations accredited by the EB that will validate proposed CDM projects, verify the resulting emission reductions, and certify these emission reductions as CERs.
- Latest developments

Main actors in the Project approval - Designated National Authority (DNA) -

- All countries wishing to participate in the CDM must designate a National CDM Authority (DNA) to evaluate and approve the projects, serve as a point of contact and determine the national criteria for project approval.

CDM project activity cycle



UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

AE⁰ = Applicant Entity
DOE = Designated Operational Entity
DNA = Designated National Authority

PP = Project proponent
EB = Executive Board

Designing a CDM Project

- In order to qualify under the CDM procedure, a project needs to demonstrate a measurable and long-term ability to reduce emissions, and forecast reductions that would be additional to any that would otherwise occur (baseline emissions).
- The most important issues to be addressed when designing a CDM project are the additionality criterion, the baseline methodologies and the monitoring plan

Additionality

- Reductions need to be "additional to any that would otherwise occur" (Kyoto Protocol)
- Little further guidance from the Marrakech Accord
- Environmental additionality must be proved
- Requirements for proving additionality currently tends to vary between buyers (environmental additionality vs. financial additionality)
- Making the case for additionality is like going to court (the validator being the judge)

The Additionality “Case”

- Main questions to be addressed:
 - What are the barriers to implementation ?
 - How does the technology compare to other practices in the sector or country ?
 - Is the project financially viable without the revenue from carbon credits ?
 - Is there a requirement to implement the project anyway based on policy or regulatory framework ?

Baseline Methodologies

- A baseline methodology shall be established on a project specific basis
- Project proponents may use methodologies previously approved by the CDM Executive Board (the so-called precedent approach) or a new methodology that must be authorized and registered by the CDM Executive Board

Baseline Methodologies

- Baseline methodologies are being developed based on the three approaches in the Marrakech Accord:
 - existing current or historical emissions;
 - emissions from a technology that represents an economically attractive investment; or,
 - the average emissions of similar project activities undertaken in the previous five years under similar circumstances and whose performance is among the top 20 % of their category.

Monitoring plan

- CDM projects must also have a monitoring plan to collect accurate emissions data.
- The monitoring plan, which constitutes the basis of future verification, should provide confidence that the emission reductions and other project objectives are being achieved and should be able to monitor the risks inherent to baseline and project emissions.

Latest developments on Baseline and Monitoring Methodologies

- Deep concerns were being expressed as during its meeting of 7-8 June 2003 the EB refused to approve all of the first 14 CDM project baseline and monitoring methodologies submitted to the EB
- However, the EB finally approved, during its meeting of 28-29 July 2003, the first two CDM project baseline and monitoring methodologies
- These two projects are :
 - Salvador da Bahia Landfill Gas project (Brazil)
 - HFC Decomposition Project in Ulsan (South Korea)

Validation and Registration

- The DOE will review the project design document (PDD) and, after public comment, decide whether or not it should be validated
- If validated, the DOE will forward it to the EB for formal registration in accordance with the CDM's criteria

Monitoring

- Once the project is operational, participants prepare a monitoring report, including an estimate of CERs generated, and submit it for verification by the DOE.

Verification and certification

- Verification is the independent ex-post determination by the DOE of the monitored reductions in emissions.
- The DOE must make sure that the CERs have resulted according to the guidelines and conditions agreed upon in the initial validation of the project.
- The DOE will, following a detailed review, produce a verification report and then certify the amount of CERs generated by the CDM project.
- Certification is the written assurance that a project achieved the reductions as verified.

Issuance

- The certification report also constitutes a request for issuance of CERs.
- Unless a project participant or three EB members request a review within 15 days, the EB will allow the issuance of the CERs.

Advantages of the CDM compared to the other flexibility mechanisms

- Whereas Joint Implementation and International Emissions Trading merely shift around the pieces of the Annex 1 countries' overall 5 % target, the CDM is project based and involves emissions in non-Annex 1 countries (which do not have targets). This in effect increases the overall emission cap.

Entry into force of the Kyoto Protocol

*berwin leighton paisner

- The Protocol will only become legally binding when at least 55 countries, including developed countries accounting for at least 55 % of developed countries' 1990 CO₂ emissions, have ratified it.
- Ratification of the Protocol by the Russian Federation is the only obstacle in the way of its entry into force
- Latest news concerning Russia's ratification

EU ETS Directive

*berwin leighton paisner

- The EU has decided to implement a EU-wide trading system at the company level - the EU Emission Trading Scheme (EU ETS)
- The carbon credits traded under the EU ETS are EU Allowance Units (EAUs)
- The first trading period is set from 2005 to 2007 (also known as the « pre-Kyoto period »)

EU Linking Directive

- The Commission adopted on 23 July 2003 a draft directive (the « Linking Directive ») aiming to link the CDM and JI Kyoto Flexibility Mechanisms to the EU ETS starting from 2008.
- If the Linking Directive is adopted by the EU Parliament and the Council, it will become an amendment to the EU ETS Directive

Benefits from the Linking Directive

- The Linking Directive gives CERs a legislative basis (even prior to Kyoto Protocol's entry into force)
- Strong incentive for European countries to invest in CDM projects as it gives them more flexibility in meeting their commitments and lower their costs
- CERs will be fully convertible in EAUs (1 CER= 1 EAU)
- No cap has been set. However, If credits converted for use in the EU ETS reach 6% of total allowances allocated by Member States for 2008-2012, a review will be triggered and a quantitative limit could be the result

CDM Funding Sources

- The main sources of financing for CDM projects are :
 1. Companies covered by the EU ETS looking to meet their commitment at lower costs
 2. Carbon Funds (i.e. Prototype Carbon Fund, Community Development Carbon Fund, Clean Tech Fund, GG-CAP)
 3. Government initiatives (i.e. Dutch CERUPT)
 4. Public Private Partnerships (i.e. Danish CDM)

CDM Funding Sources

- These sources of financing can be further classified based on :
 - type of financing (debt finance, private equity, funds investing in publicly traded companies, etc.)
 - technology type (energy efficiency, renewable energy, etc.)
 - geographical focus (global, regional, developing countries, etc.)

CDM Funding Sources - New funds -

- **Community Development Carbon Fund**
 - operational since 15 July 2003
 - involve private and public participants (i.e. Italy, the Netherlands, Nippon Oil (Japan), BASF (Germany))
 - Budget : USD 100 M
 - eligibility criteria :
 - "small scale CDM project activities"
 - improvements to the material welfare of the local communities involved
 - potential project:
 - Mongolia: modernisation of 40 baseload boilers in 40 district coal burning heating plants
 - Kenya : switching from fuel oils to biomass fuels for tea drinking

CDM Funding Sources - New funds -

- **Clean Tech Fund**
 - not yet operational
 - venture capital fund
 - Budget : USD 100 – 150 M
 - Geographical focus: Brazil, Mexico, Argentina, Chile
 - potential projects: waste recycling, renewable energy technologies

General benefits from CDM for the Host Country

*berwin leighton paisner

- Attract capital for projects that assist in the shift to a more prosperous but less carbon-intensive economy ;
- Encourage and permit the active participation of both private and public sectors ;
- Provide a tool of technology transfer, if investment is channeled into projects that replace old and inefficient fossil fuel technology, or create new industries in environmentally sustainable technologies ; and,
- Help define investment priorities in projects that meet sustainable development goals.

Sustainable development benefits from CDM for the Host Country

*berwin leighton paisner

- Transfer of technology and financial resources;
- Sustainable ways of energy production;
- Increasing energy efficiency and conservation;
- Poverty alleviation through income and employment generation; and
- Local environmental side benefits