



**Government of Pakistan
Ministry of Environment**

MoE Initiatives for Clean Development Mechanism (CDM) Promotion in Pakistan

By

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Potential Climate Change Impacts

Climate Changes



Temperature



Precipitation



Sea Level Rise



Water Resources

Changes in water supply
Increased competition for water



Agriculture

Crop yields
Irrigation demands



Health

Weather-related mortality
Air-quality respiratory illness



Forests

Change in forest composition
Shift geographic range of forests
Forest health and productivity



Coastal Areas

Erosion of beaches
Inundation of coastal lands
Costs to protect coastal communities



Species and Natural Areas

Shift in ecological zones
Loss of habitat and species

Source: EPA

The Kyoto Protocol of UNFCCC

Adopted in Kyoto, Japan in 1997 and ratified in February 2005
(Pakistan signed the Protocol on 11th January, 2005)

The Kyoto Protocol: Aims to reduce GHG emissions by 2012 and distinguish two types of countries:

Annex-I countries: With binding emission targets (**industrialised countries**):

Western and Eastern Europe, Canada, Japan, New Zealand, Russia, Ukraine etc.

Non-Annex I countries: With voluntary participation (developing countries):

China, India, Pakistan, South Africa, Philippines, Uruguay, Brazil, and other developing countries.

The Kyoto Protocol Targets

Under the KP the Annex- I countries have been given binding targets: i.e. to reduce their combined GHG emission by 5.2 percent below their 1990's level, between the period 2008 - 2012.

USA	-7%
EU	-8%
Japan	-6%
All Developed Countries	- 5.2%

Mechanisms Under the Kyoto Protocol

The Kyoto Protocol introduces three market based flexible mechanisms for the emissions reduction:

- Joint Implementation (JI),
- Emission Trading Scheme (ETS) and
- **Clean Development Mechanism (CDM)**

Clean Development Mechanism (CDM)

CDM is a market based instrument under the Kyoto Protocol of UNFCCC:

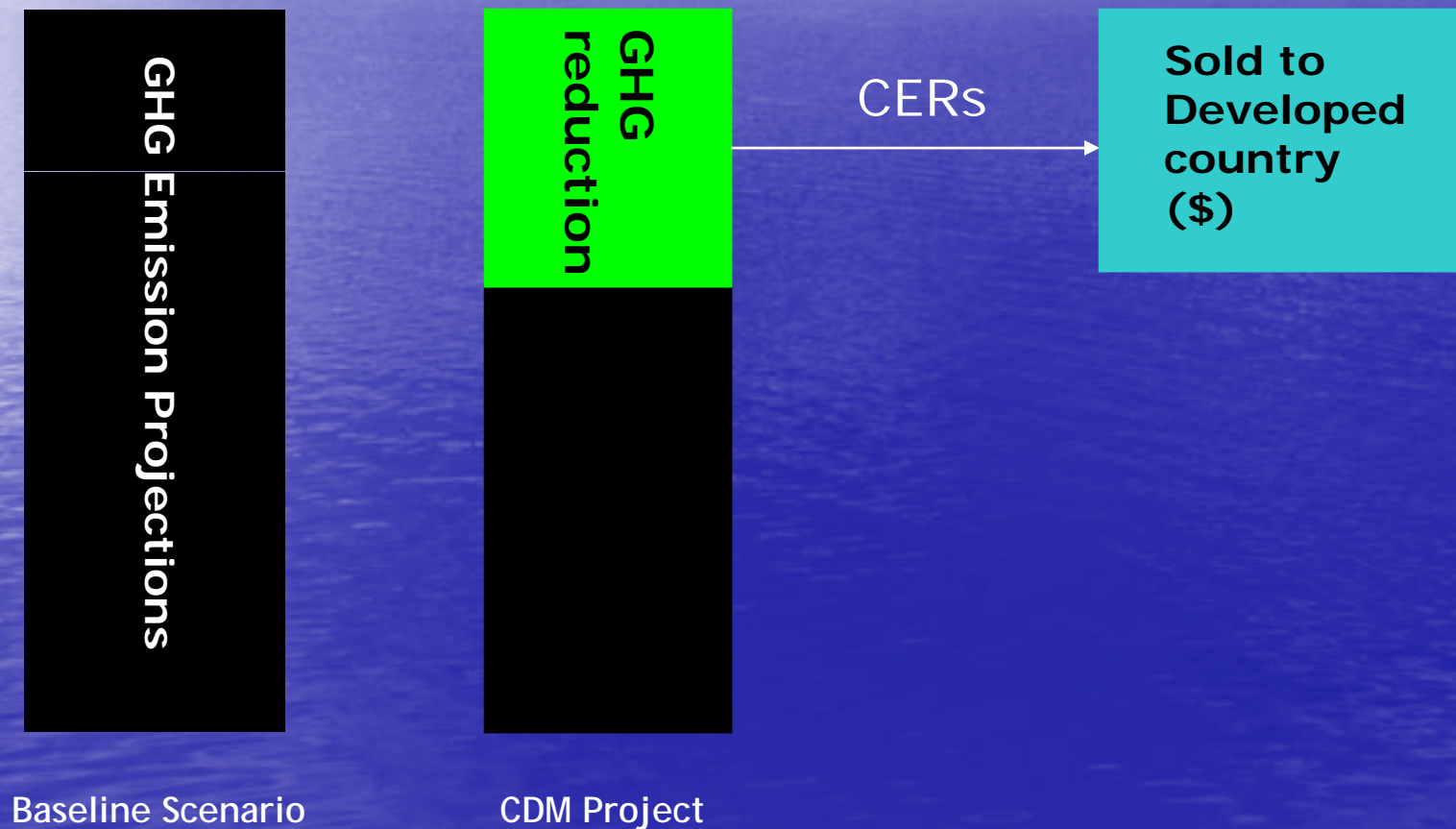
Assists developing countries in sustainable development while at the same time contributing to the ultimate objective of the Convention.

Developed countries to support project activities that reduce GHG emissions in the developing countries in return for Certified Emission Reductions (CERs)/ Carbon Credits.

The CERs generated by such project activities can be used by developed countries as credits to meet their emissions targets under the Protocol.

Concept of CERs/ Carbon Credits

Developing Country (Host)



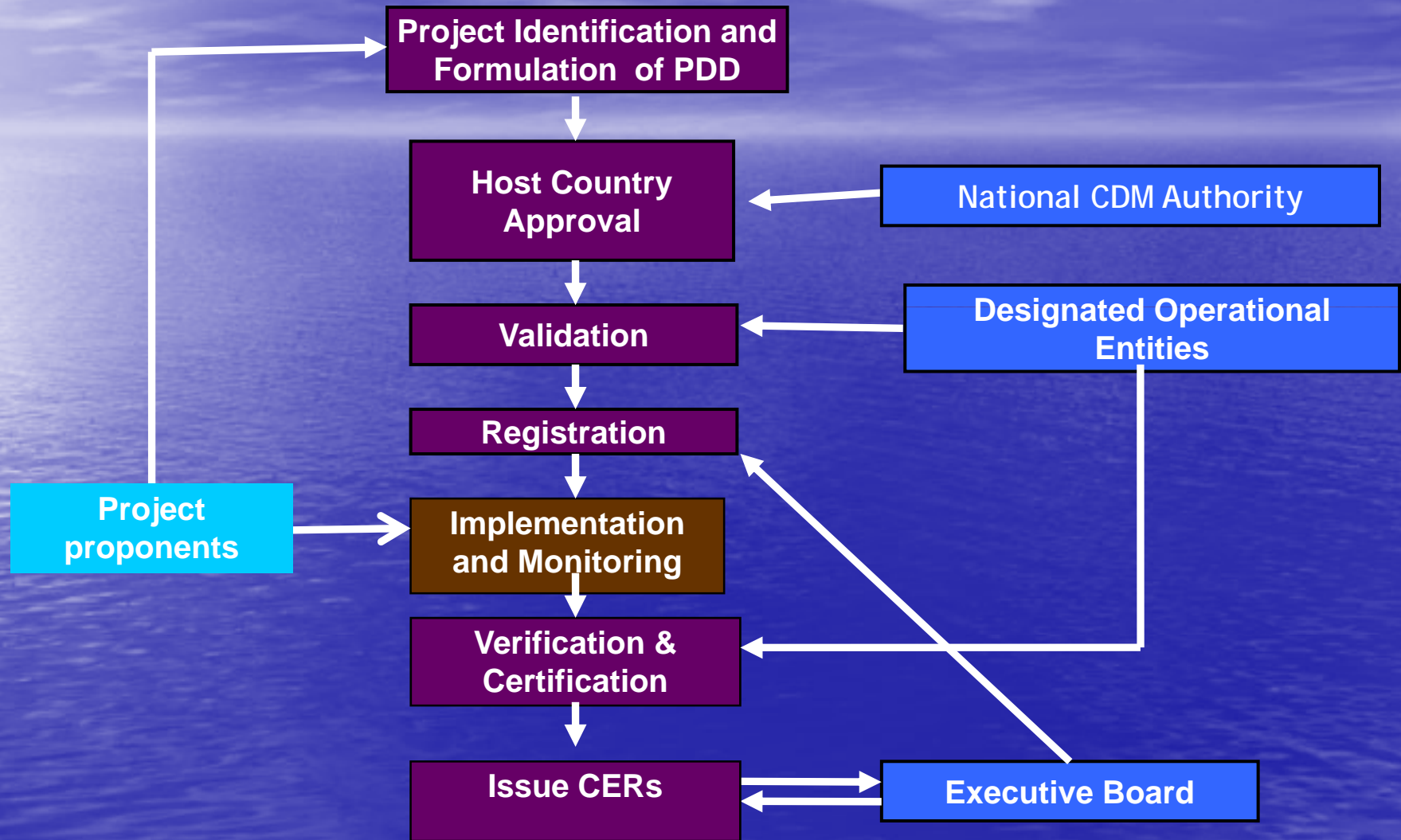
Eligible GHG's Reduction under Kyoto Protocol

The KPs emissions targets cover the six main GHGs:

Name	Formula	GWP (CO ₂ eq.)
1. Carbon- dioxide	(CO ₂)	1
2. Methane	(CH ₄)	21
3. Nitrous oxide	(N ₂ O)	310
5. Per- fluorocarbons	(PFCs)	92,00
4. Hydro- fluorocarbons	(HFCs)	11,700
6. Sulphur hexafluoride	(SF ₆)	23,900

Sinks (carbon sequestration)

CDM Project Cycle



CDM Incentive for Developed Countries

Developed countries have been subjected to legally binding emission targets.....**2008/12**.

Due to **un-localized** nature of CO₂...it does not matter for environment where reduction occurs.

Costs of abatement or reduction of emissions :

Developed Countries : U\$ 50-100/ton (estimated)

Developing Countries : U\$ 1-15/ton

Reductions of GHG is much cheaper in developing countries.

CDM Incentives for Developing Countries

Capitalize an “**unvalued**” commodity..... CERs

“**Additional**” financing for local Sustainable Development priorities and as such has potential of “**Catalyzing**” large **Foreign Direct Investment (FDI) flows**

Instrument for “**appropriate**” **Technology Transfer**

Linkage with local environmental issues – (air pollution etc.)

Financial viability ~ Carbon financing can increase project Internal Rate Returns (IRRs) between 0.5 to 50% (WB)

Types of CDM Projects

- Unilateral, Bilateral and Multilateral CDM Projects are allowed in following sectors
- Energy
 - Renewable/alternate energy,
 - Energy efficiency/conservation, and
 - Fossil- fuel cogeneration
- Waste Management
 - Landfill gas capture
 - Recycling
 - Energy from solid waste etc.
- Transportation
 - Alternative fuel vehicles
 - Mass transit systems
 - Cleaner engines, CNG

Cont---

- Industrial processes (Steel, Fertilizer, Textile etc.)
- Land Use, Land Use Change and Forestry (watershed management, sustainable forest management, Afforestation and reforestation)
- Agricultural and livestock practices
- Any other project resulting in GHG mitigation or carbon sequestration.

CDM in Pakistan

- Pakistan ratified Kyoto Protocol in January, 2005
- **Ministry of Environment** has been declared as **Designated National Authority for CDM and D. G. (Environment)** is the “Focal Point” for DNA
- CDM Cell has been established under DNA for promotion of CDM, and for policy/ technical support to DNA.
- Pakistan National Operational Strategy for CDM has been approved in February 2006 (www.cdmpakistan.gov.pk)
- Pakistan has granted Host Country Approval to **twenty one (21)** CDM projects and more than 60 CDM projects are in process of development which require host country approval in future
- Several capacity building/awareness raising initiatives have been conducted under this project for promotion and enhancement of CDM Projects in Pakistan
- CDM Cell has planned **23 Awareness Raising** Events for **next 6 months in this** regards

Capacity Building Initiative of DNA

Project Name	Hands on Capacity Building of Forest Official in Developing Proposals for Afforestation/ Reforestation Project Design Documents (PDDs) under CDM
Period	2007- 2009
Total Cost	Rs. 9.84 million
Funding	Swiss Agency for Development Cooperation through Inter- Cooperation, and Ministry of Environment
Objectives	To build capacity of Provincial Forest Departments to develop and manage CDM projects in forestry sector o Pakistan.
Progress Made so Far	<ul style="list-style-type: none">▪ Three training sessions have been organized▪ National Definitions have been developed of CDM forestry▪ Draft Project Design Documents have been completed▪ Finalized 3 A/R CDM Projects

(Cont...)

Project Name	World Banks Project for Capacity Building for Development and Implementation of Carbon Finance Projects under Japanese Policy and Human Resource Development Grant
Period	18 Months
Budget	US\$ 0.57 million
Aims and Objectives	<ol style="list-style-type: none">1. Strengthening of institutional framework and enabling environment to promote public and private participation in the carbon market.2. Training/Workshops for enhancement of capacities of local stakeholders (public institutions, private investors, NGOs etc.) in CDM project development.3. Support CDM project preparation and development in priority sectors: Energy, waste management, industries, forest and agriculture).
Current Status	Consultant Firm i.e. WINROCK International has been hired. And is in process of implementation

(Cont...)

Project Name	Institutional Capacity Enhancement for CDM in Pakistan.
Period	18 months
Total Cost	US\$ 0.674 million
Project Implementation	Grant from Royal Norwegian Embassy through United Nations Industrial Development Organization (UNIDO)
Objectives	<ol style="list-style-type: none">1. To build institutional capacities in Pakistan for addressing climate change; through enhancement of the DNA/CDM in the Ministry of Environment for better management of CDM process and increasing the capacity of CDM Project developers2. To tape the GEF funding to give a kick-start to initiating the process of developing second national communication to UNFCCC.3. To tape donor funds to initiate the process of developing national policy/ action plan for climate change mitigation and adaptation as envisaged under national environmental policy.
Current Status	The project is in process of implementation now

Memorandum of Understanding (MoU)

- Government of Pakistan has signed a Memorandum of Understanding (MoU) on Cooperation in CDM with Federal Republic of Germany has been signed on 8th July 2009.
- Government of Pakistan has signed a Memorandum of Understanding (MoU) on Cooperation in CDM with Japanese Carbon Fund (JCF) through Japan Bank for International Cooperation (JBIC) has been signed in July 2008.
- Government of Pakistan has signed a Memorandum of Understanding (MoU) in August 2008 with CAMCO International for the realization of CDM projects in Pakistan.
- A number of similar MoU for promotion and enhancement of CDM Project Activities in Pakistan

CDM Awareness Raising Campaign

S. No	Awareness Raising Activity	Jul 2009	Aug 2009	Sep 2009	Oct 2009	Nov 2009	Dec 2009	
CDM Cell								
A. Seminars								
	BAHRIA University, Islamabad.							
	COMSATS University, Islamabad.							
	National University of Science and Technology, Islamabad.							Total 4
	PRESTON University, Islamabad.							
B. Consultative Meetings								
1.	Provincial of Chamber of Commerce and Industries of Pakistan							
2.	Stock Exchanges of Pakistan							
3.	Alternate & Renewal Energy Sector of Pakistan (MoE)							
4.	Banking Sector of Pakistan (MoE)							Total 4

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C. PDD Trainings by M/S Winrock International								
21	PDD Training for RE and EE (WINROCK)						Total 2	
22	PDD Training for A/R Forestry and REDD (WINROCK)							

Criteria for Host Country Approval

- Consistency with the national laws and sustainable development policies, strategies and plans.
- No obligation of the GoP to the investors other than CERs.
- **Environmental Criteria**
 - Significant reduction in the emissions of GHGs
 - Conservation of local resources and/or improvement of the local environment.
- **Social Criteria**
 - Poverty alleviation, jobs creation, benefits to local communities etc.
- **Economic Criteria**
 - Positive impact on balance of payments (not result in net increase in external debt burden), cost effective.
- **Technological Criteria**
 - Technology and know how transfer
 - Not result in import of obsolete technology

Tax and Credit Sharing Policies

- No income tax or duty on transfer/ sale of CDM emission credits
- Credits to be awarded fully to the project Proponents
- Banks and other financial institutions to be encouraged to provide special incentives to CDM Project Proponents

Status of 21 Approved CDM Projects in Pakistan

H C A 21		Validation 18		Registration 3		Total 21	
FI	GHGs	FI*	GHGs*	FI	GHGs	FI	GHG S
682.31	3.75	517.16	2.221	165.15	1.529	682.31	3.75

FI* Foreign Investment in Million US \$
 GHGs** Million tons Co₂ eq/year

Status of 60 CDM Project in Pipeline

CDM projects in Pipeline 60		Overall CDM Projects 81	
FI	GHGs Reduction	FI	GHGs Reduction
600	15	1268	18.75

FI* Foreign Investment in Million US \$
GHGs** Million tons Co₂ eq/year

Ways Forward for Promotion of CDM Projects in Pakistan

- There is need of identification and assessment of all CDM potential sectors
- Need more Awareness Raising Workshop/Seminars
- Capacity building initiatives for Project Design Documents (PDD) for both public and private sectors need to enhance CDM Projects activities in Pakistan
- Development of policies to encourage CDM projects in all relevant sectors
- Development of a strong supportive institutional framework
- Need to develop Programmatic and Bundling Approaches for Taping CDM potential in all CDM eligible sectors
- Need to enhance the portfolio of CDM Project through public/ private partnership like development of linkages among all stakeholders of CDM

Contact DNA- Pakistan

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THANK YOU

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