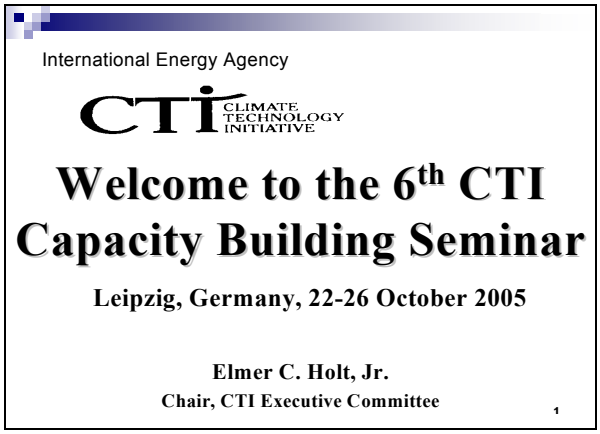
Session 1 • Introduction and Cross-cutting Issues

Welcome to the 6th CTI Capacity Building Seminar

Elmer C. Holt

CTI Executive Committee / US Department of Energy



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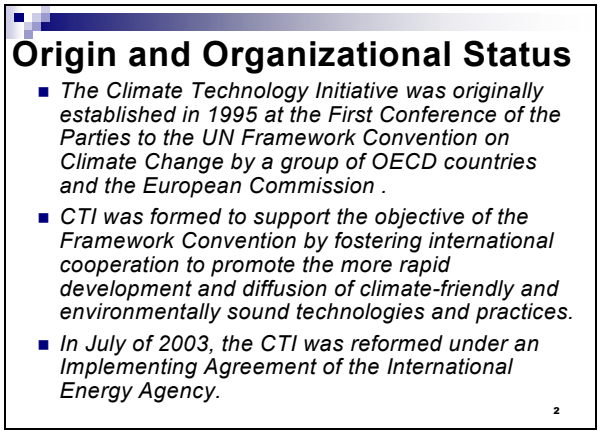

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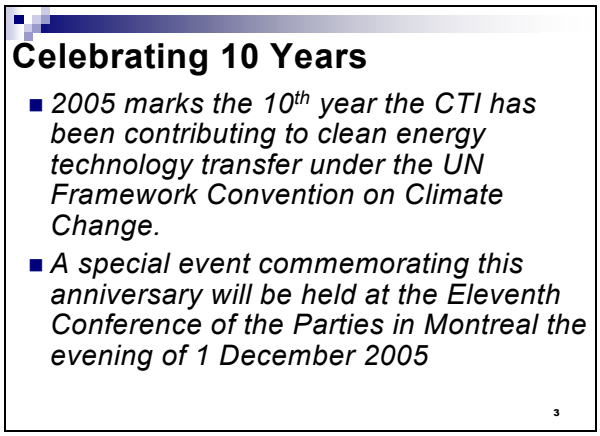

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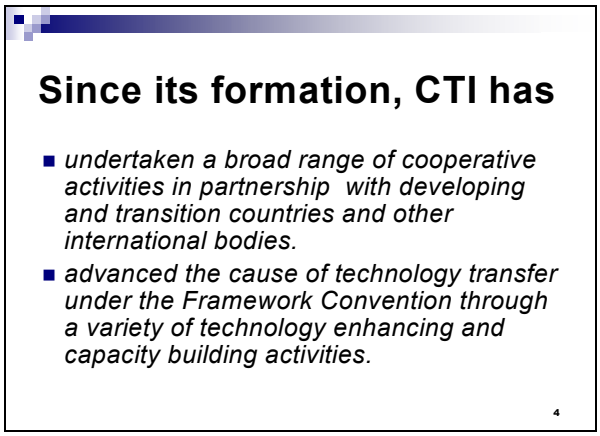

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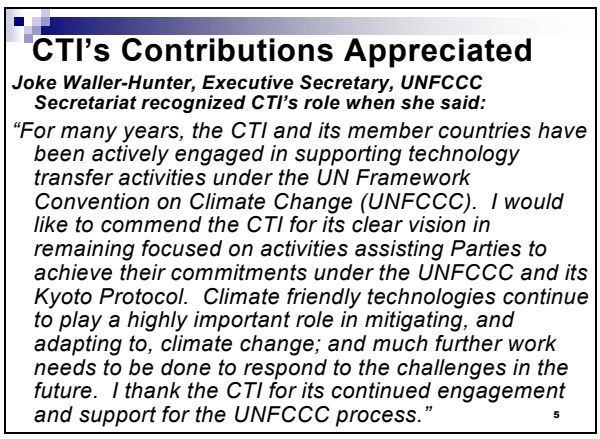

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CTI Leader in Organizing a Workshop on Innovative Options to Finance Tech Transfer in Bonn

- *Held 20-21 October 2005*
- *Trying to solve the very real problem of financing technology needs.*
- ***Heavy Participation from the Private Finance Community***
- *Looking for practical ways to leverage scarce resources*
- *Optimistic about a way forward*

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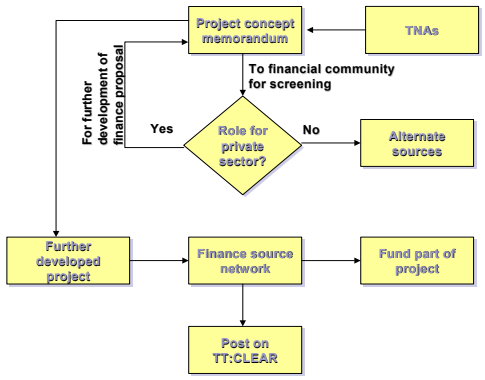
Project Financing Proposal flow diagram



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CTI Activities include:

1. *Technology Needs Assessments*
2. *Seminars and Symposia*
3. *Implementation Activities*
4. *Training Courses*
5. *Information Dissemination*
6. *Support Activities*

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1. Technology Needs Assessments

- *Capacity building for TNAs;*
- *Technical assistance to countries carrying out needs assessments;*
- *Development of methodological approaches to TNAs in partnership with relevant international organizations;*
- *Exchange of experiences about the use and development of successful approaches to conducting TNAs under varying circumstances; and,*
- *Facilitating interaction between governments, agencies, and relevant international and other organizations on TNAs.*

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2. Seminars and Symposia

- *in support of the UNFCCC process,*
- *in order to facilitate the diffusion of environmentally sound technologies and practices.*
- *Stakeholders' involvement, particularly, industry sector, is actively sought.*
- *Close collaboration with international partners, including WB, UNIDO, UNDP, UNEP, UNFCCC Secretariat.*

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Recurring areas of discussions/findings at seminars

- *Importance of partnership (e.g., public/private, etc.)*
- *Private sector engagement*
- *Presence of the necessary enabling environment that promotes sustained participation by the business and financial communities -*
  - *Clear and transparent rules & procedures*
  - *Well functioning institutional settings*
  - *Effective IPR protection*
- *Need for Capacity Building*
- *Take actions. Learning by doing!*

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3. Implementation Activities

- *facilitates implementation activities identified during the technology needs assessment process through a variety of actions, including:*
  - *Identifying priority clean energy technology sectors*
  - *Implementing targeted activities in selected priority sectors*
  - *Evaluating activities, and disseminating lessons learned*
  - *Developing a strategy for establishing the necessary enabling environment for technology transfer*

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4. Training Courses

- *Training courses are organized in collaboration with relevant international organizations, typically on a regional basis,*
- *with a focus on the special requirements and circumstances of the target countries in the region.*

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Current CTI Member Countries

- *Austria*
- *Canada*
- *Denmark*
- *Finland*
- *Germany*
- *Japan*
- *Norway*
- *United Kingdom*
- *United States*
- ***??????????????W???????***

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Listening to Our Clients (1)

"Attending CTI capacity building seminars has allowed me to share experiences with other experts from countries in the region on their use of climate-friendly technologies and practices. This has greatly improved my learning curve and the ability to build internal capacity when I return home."

Igor A. Bashmakov

Executive Director, Center for Energy Efficiency

Moscow, Russia

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Listening to Our Clients (2)

"Technology transfer should and will normally happen under mutually benefiting and reciprocally favourable terms of agreement. Ghana was able to successfully conduct a technology needs assessment for selected sectors of our economy with technical assistance provided through the CTI. Working in collaboration with the CTI made this process more efficient and effective. We look forward to continuing our relationship with the CTI during the implementation stages of the technology needs assessment results."

William Kojo Agyemang-Bonsu

Environmental Protection Agency of Ghana and

Prior Chair of Expert Group on Technology Transfer

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CTI CLIMATE TECHNOLOGY INITIATIVE

Thank you very much.

- *Please visit the CTI website:*
  www.climatetech.net

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Post-Kyoto Strategies and Framework

Franzjosef Schafhausen

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

Post-Kyoto Strategies and Framework
(2nd Commitment Period)

by
Franzjosef Schafhausen

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Berlin
Head of Division "National Climate Change Programm, Environment and Energy"

CTI Capacity Building Seminar for
CEE/CIS Countries Climate Technology and Energy Efficiency –
Sustainable Pathways to Climate Change Mitigation
Policies and Management

Breitenfelder Hof, Leipzig
22 – 26 October 2005

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Before Kyoto – two positions – two camps

- Implementation of P & M's on a more or less voluntary basis
  Use of flexible mechanisms with the aim to make Climate Change Policy more cost efficient
  no international regimes - bilateralism
  USA, Australia, UK, Japan

- Mandatory very ambitious targets in absolute terms on an international agreed basis + P & M's on a national basis as well as on an international basis
  strict international regime - multilateralism
  EU, AOSIS

Slide 2

The Kyoto Deal – a paradigm shift for environmental policy

- Relatively moderate targets in absolute terms
- Quantitative defined targets to reduce or limit GHG emissions only for Annex I Countries
- Kyoto Mechanisms
  - Joint Implementation (Art. 6)
  - Clean Development Mechanism (Art. 12)
  - International Emissions Trading (Art. 17)
- Requirements on Monitoring and Reporting
- Policies and Measures (Art. 2)
- The (EU) bubble (Art. 4)

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The Kyoto targets

Party	GHG – target
Austria, Belgium, Bulgaria, Danmark, Estonia, EU, Germany, Finland, France, Greece, Irland, Italy, Latvia, Liechtenstein, Luxembourg, Monaco, Netherlands, Portugal, Romania, Sweden, Swiss, Slovakia, Slovenia, Spain, Czech Republic, United Kingdom	minus 8 %
Croatia	minus 5 %
USA [1990 – 2004: + 19,4 % 2003 – 2004: + 1,4 %]	minus 7 %
Japan, Canada, Poland, Hungary	minus 6 %
Russia, Ukraine, New Zealand	+/- 0 %
Norway	plus 1 %
Australia – [1990 – 2004: + 40 % 2003 – 2004: + 4,3 %]	plus 8 %
Iceland	plus 10 %

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The EU Bubble (EU15)

EU Member State	„burden sharing" target
Luxembourg	- 28 %
Danmark	- 21 %
Germany	- 21 %
Austria	- 13 %
UK	- 12,5 %
Belgium	- 7,5 %
Italy	- 6,5 %
Netherlands	- 6 %
Finland	+/- 0 %
France	+/- 0 %
Sweden	+ 4 %
Ireland	+ 13 %
Spain	+ 15 %
Greece	+ 25 %
Portugal	+ 27 %
EU	- 8 %

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But!

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Emission Trends (energy related CO_2-emissions in Mio. t)

	1990	2003	Difference in %
USA	4.831	5.672,4	+ 17,4 %
Japan	1.048	1.216	+ 16,0 %
China	2.289	3.720	+ 62,5 %
India	591	1.087	+ 83,8 %
Latin America	599	840	+ 40,3 %
Annex II	9.835	11.182	+ 13,7 %
World	21.889	26.113	+ 19,3 %
World without China	19.600	22.393	+ 14,2 %
Annex I	14.068	13.971	- 0,7 %
EU	4.238	4.179	- 1,7 %
Non Annex I	7.171	11.361	+ 58,4 %
EIT (economies in transition)	4.104	2.604	- 36,5 %

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CO_2 – Trends 1990 - 2004

Country groups	Changes 1990 - 2004	Changes 2003 - 2004
OECD	+ 16 %	+ 1,3 %
EU15	+ 4,5 %	+ 0,7 %
Non Annex I	+ 75 %	+ 9%
China	+ 95 %	+ 15 %
CIT	- 36 %	+ 1,6 %
World	+ 25 %	+ 4,5 %

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The European situation I

EU-Mitgliedstaat	THG-Emissionen Basisjahr	THG-Emissionen 2003	„burden sharing"	Zielgröße 2008 - 2012	Zielab-weichung
Belgien	146,8	147,7	- 7,5 %	135,8	- 11,9
Dänemark	69,6	74,0	- 21 %	55,0	- 19,0
Deutschland	1248,3	1017,5	- 21 %	986,2	- 31,3
Finnland	70,4	85,5	+/- 0 %	70,4	- 15,1
Frankreich	568,0	557,2	+/- 0 %	568,0	+ 10,8
Griechenland	111,7	137,6	+ 25 %	139,6	+ 2,0
Irland	54,0	67,6	+ 13 %	61,0	- 6,6
Italien	510,3	569,8	- 6,5 %	477,1	- 92,7
Luxemburg	12,7	11,3	- 28 %	9,1	- 2,2
Österreich	78,5	91,6	- 13 %	68,3	- 23,3
Portugal	59,4	81,2	+ 27 %	75,4	- 5,8
Schweden	72,3	70,6	+ 4 %	75,2	+ 4,6
Spanien	286,1	402,3	+ 15 %	329,0	- 73,3
United Kingdom	751,4	651,1	- 12,5 %	657,5	+ 6,4
Niederlande	213,1	214,8	- 6 %	200,3	-14,5
insgesamt	4.252,5	4.179,6	- 8	3.912,3	- 267,3

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The European situation II

Beitrittsstaat	THG-Emissionen in Mio. t im Basisjahr	Basisjahr	Kyoto Ziel	THG-Emissionen in Mio. t in 2001	Distance to target: Kyoto-Ziel zu THG-Emissionen 2001
Malta		-	-		-
Tschechische Republik	192,1	1990	176.7	148,0	+ 28,7
Estland	43,5	1990	40,0	29,4	+ 10,6
Ungarn	102,6	Mittelwert 1985 - 1987	96,4	84,3	+ 12,1
Lettland	29,0	1990	26,7	11,4	+ 15,3
Litauen	51,5	1990	26,7	11,4	+ 15,3
Polen	565,3	1988	531,4	382,8	+ 148,6
Zypern		-	-		-
Slowakei	72,2	1990	66,4	50,1	+ 16,3
Slowenien	19,9	1986	18,3	20,2	- 1,9

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The solution?

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Use of project-based mechanisms

- Increased use of JI/CDM provided for in numerous NAPs for 2008-2012 – however not yet approved by COM – orientation info in the updated NAP guidance – info on specific application of the "ceiling" in NAP II
- Financing from public funds planned in some EU-Member States (NL, DK, AUS, F, I, E)
- Annually total volume to be continuously exploited for 2008-2012 currently: 100 – 125 million t/a – not realistic from today's perspective
- Some MS reject state-supported use of JI and CDM: UK, SWE, SLO, D
- Within the EU, JI projects on CO_2 reduction are barely worthwhile any more – the search for alternative structures and concepts has begun

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Planned purchase of ERUs and CERs with public funds in the second trading period

(planned figures in submitted NAPs)

MS	Purchase of allowances with public funds p.a. 2008 - 2012	Relationship CERs/ERUs to respective burden sharing target	Relationship CERs/ERUs to current distance to target (end of 2002)
Netherlands	17 – 20	133 – 156 %	121 – 142 %
Spain	20	-	29 %
Austria	7	69 %	42 %
Ireland	3.7	-	43 %
Denmark	3.7	26 %	26 %
Portugal	3.7	-	46 %
Luxembourg	3	86 %	176 %
Belgium	2.5	23 %	18 %
Italy	32.5 – 60	98 – 182 %	41 – 76 %
Total	99.1 – 126.6		

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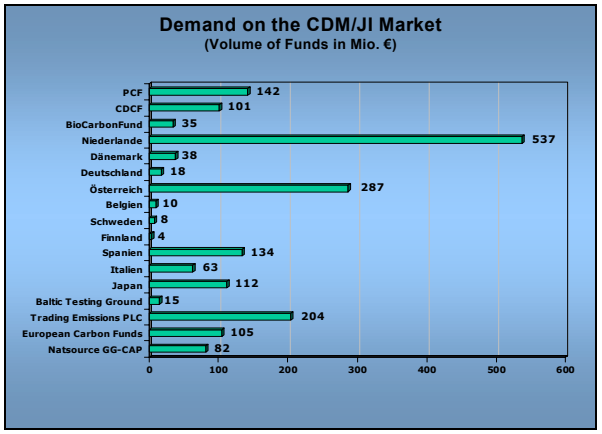

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The German Position

Priority is given to 'domestic action'

- Use of 'Kyoto mechanisms' supplementary
- Intensive involvement in the 'AIJ pilot phase'
- Great interest among German industry in the use of JI and CDM – but: no acceptance of requirements beyond Marrakesh – Rejection of 'Golden Standards'
- German Government interested, particularly for 'improved energy efficiency' and 'use of renewable energy' – sinks given only guarded consideration
- Wait and see attitude due to the ongoing work in Bruxelles – reports on „sinks“ and „National Projects“ until 30. June 2006
- Wait and see attitude due to lack of emissions thresholds for installations listed in Annex I of the EU Emissions Trading Directive - task of the NAP II development

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The EU-allowance price

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The contrast

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Asia-Pacific Partnership on Clean Development and Climate - APPCC

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President‘s Statement: July 27, 2005

- The United States has joined with Australia,China, India, Japan and South Korea to create a new Asia-Pacific partnership on clean development, energy security, and climate change
- This new result-oriented partnership will allow our nations to develop and accelerate development of cleaner, more efficient energy technologies to meet national pollution reduction, energy security, and climate change concerns in ways that reduce poverty and promote economic development
- The six Asia-Pacific partners is build on our strong history of common approaches and demonstrated cooperation on clean energy technologies
- I have directed Secretary of State Condoleezza Rice and Secretary of Energy Sam Bodman to meet with their counterparts this fall to carry forward our new partnership and provide direction for our joint work

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Significance of the APPCC

- 64,7 % of World GDP
- 45,2 % of World Population
- 51,0 % of World Total Primary Energy Consumption
- 49,4 % of World CO_2 Emissions from the fossil fuel Consumption and Flaring
- 64,5 % of World Coal Production
- 63,6 % of World Coal Consumption
- 45,6 % of World Petroleum Consumption
- 55,6 % of World Net Conventional Thermal Electricity Gerneration
- 30,1 % of World Dry Natural Gas Consumption

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Focus of APPCC

- Voluntary practical measures taken by these six countries in the Asia-Pacific region to create new investment opportunities, build local capacity, and remove barriers to the introduction of clean, more efficient technologies
- Help each country meet nationally designed strategies for improving energy security, reducing pollution, and addressing the long-term challenge of climate change
- Promote the development and deployment of existing and emerging cleaner, more efficient technologies and practices that will achieve practical results in areas such as
  - Energy Efficiency – Clean Coal – Liquefied Natural Gas – Bioenergy – Methane Capture and use (M2M) – Civilian Nuclear Power – Geothermal – Agriculture/Forestry – Rural/Village Energy Systems – Advanced Transportation – Hydro/Wind/Solar Power – Building/Home/Construction/Operation

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A Balanced Approach?

- Overcome extreme poverty will improve the environment, because people who lack food, shelter, and sanitation cannot be expected to reserve the environment and the expense of their own survival – and poor societies cannot afford to invest in cleaner, more efficient technologies
- Rapid, sustained economic progress of poor nations will lead to dramatic environmental improvements
- Best way to help nations development, while limiting pollution and improving public health, is to promote technologies for generating energy that is clean, affordable, and secure
- Putting the world on an energy diet is not the solution. About two billion people have no access to modern energy services – and blocking that access would condemn them to permanent poverty, disease, high infantil mortality, polluted water, and polluted air

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APPCC – Take Action on Climate Change in a Broad, Pro-Growth Context

- Climate change is a serious long-term issue, requiring sustained action over many generations by both development and developing countries
- Developing and deploying innovative technologies that are cleaner and more efficient are the keys to addressing our climate challenge
- Acting to help developing countries adopt new energy sources
- Greatest progress will be assured by a cooperation effort that combines our strategies with the best strategies of other nations to promote economic growth, enhance energy security, reduce harmful air pollution, and reduce greenhouse gas emissions
- Developing countries are unlikely to join in approaches that foreclose their own economic growth and development

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Chronology

- March-July 2005: Under the direction of the President, the Administration worked to build a new strategic partnership with five other key Asia-Pacific countries (Australia, China, India, Japan, and South Korea) on the issue of clean development, energy security, and climate change
- July 28, 2005: Public announcement in Vientiane, Laos, and release of „Vision Statement of Australia, China, India, Japan, the Republic of Korea, and the United States of America for a New Asia-Pacfic Partnership on Clean Development and Climate."
- Novermber 2005: Ministerial launch in Adelaide, Australia (announced in August 2005) – but cancelled in october 2005

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The EU and the German approach

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Elements for the future

- Clear targets in absolute terms
- Effective policies and measures
- Use of emissions trading as the key instrument
- Use of the flexible mechanisms as means to reduce costs?
- Multilateralism

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Characteristics of the German Climate Change Programm (GCCP)

- Differentiated and mandatory targets and timetables
- A broad package of policies and measures covering all sectors (energy supply, industry, transport, private households, small consumers)
- Clear institutional structures (IMA „CO_2-Reduction")
- A transparent proccess to development and improve the National Climate Change Programme

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Structure of the ECCP

- Discussed in stakeholder groups (Members of governments, business sector, NGO's, unions, scientists) started in 2000
- Programme includes 46 P&M's in all relevant sectors
- EU ETS is the key instrument (50 % of the CO_2-emissions of the EU are covered).

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Targets and Timetables

Germany

- Reduction of greenhouse gas emissions by 40 % by 2020 on the condition that the EU agrees to a GHG reduction of 30 % by 2020 (base year 1990)

European Union

- Reduction of greenhouse gas emissions by the industrialised world by 15 to 30 % by 2020 and 60 to 80 % by 2050 (base year: 1990)

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The empirical evidence shows – climate protection stimulates growth

Average growth for the manufacturing of products for rational energy use
4.6 % p.a.

Average growth for the manufacturing industry as a whole
2.6 % p.a.

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The empirical evidence shows – climate protection is a motor for export

Average growth of products for rational and economical energy use
9.0 % p.a.

Average growth of all exports
3.9 % p.a.

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Climate protection also creates jobs

Premise: 40 % reduction in CO_2 emissions by 2020 (baseline 1990)
Phasing out of nuclear power agreed in June 2001

Effects (on balance):
2005 55,300 additional jobs
2010 132,860 additional jobs
2020 194,030 additional jobs

Source: PROGNOS AG; Basel, Klimaschutz und Arbeitsplätze, Frankfurt am Main 2001

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Conclusion 1

A consistent, internationally integrated and sensibly designed climate protection policy (showing national responsibility while making use of international opportunities)

- gives incentives for developing know-how and innovation
- promotes growth and employment,
- improves the international competitiveness of German industry,
- lowers import dependency on oil and gas producers and thus improves Germany's balance of payments,
- removes environmental pressures and contributes to resource conservation,
- steers an economically efficient path towards climate policy targets and thus helps to relieve cost burdens (the use of emissions trading being an excellent example).

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Conclusion 2

- Climate Change is a global problem and can only be solved globally. Therefore there is a need to create and implement multilateral regimes
- The national Climate Change Policy in Germany is based on the UNFCCC and the Kyoto Protocol
- Targets and timetables are necessary as well as policies and measures
- Nevertheless the German Government is prepared to cooperate bilaterally

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Thank you for giving me your attention

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But – the game is not over!

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Previous steps and next steps

- Numerous workshops and seminars during the last months
- „SOGE" back to back to SBSTA/SBI meeting in May 2005 in Bonn: first informal discussion on opportunities, sucess stories and failures – different approaches
- Reports of the industrialized world on „demonstrable progress" during the period 1990 – 2005 in 2005 (UNFCCC – requirement)
- COP 11 / COP/MOP1 / SBSTA / SBI 28. November – 9. December 2005 in Montreal: Negotiation on „Post Kyoto"

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Technology Transfer through the Kyoto Mechanism

Toshiyuki Sakamoto

Ministry of Economy, Trade and Industry, Japan

Technology is an essential element in order to realize global substantial emission reductions. Indeed, new technology, once successfully developed, deployed and diffused, can contribute to global emission reductions effectively. It also should be noted that technological solution will not compromise economic growth. It rather will provide ample opportunities for developing countries to further develop in a sound and sustainable manner through adopting advanced and clean technology transferred from developed countries. In this context, it is important for international society to promote maximum and global diffusion of existing technology. The project-based mechanism, uniquely introduced under the Kyoto regime, namely JI and CDM, assists in global diffusion of clean technology, as explicitly stipulated in the Marrakech Accords for CDM.

The other principal objective of JI and CDM is to achieve sustainable development in project-host countries. In this respect, it is very important to promote energy-efficiency projects in host countries, with their various socio-economic benefits. These co-benefits to be conferred by energy-efficiency projects, among all, include economic growth, preventing pollution, alleviating poverty, improving the security of energy supply, competitiveness and improving health and employment. In this way, energy efficiency projects can provide a real win-win situation, contributing to both cutting CO_2 emissions and sustainable development.

In addition, energy efficiency can result in huge reductions of CO_2 emissions. According to the IEA, enormous potential for reduction of CO_2 emissions through energy conservation lies in developing countries. For instance, assuming developing countries attain energy conservation only by 10% compared to the reference scenario as defined by the IEA, it will result in emission reductions of 1.44Gt-CO_2 p.a. in 2020.

Furthermore, energy efficiency can save much capital, especially for developing countries. The IEA estimates energy-related investment needed in developing countries between 2001 and 2030 will amount to $7.9 trillion and that investment will grow by 70% between 2021 and 2030 compared to the period between 2001 and 2010. Once energy infrastructure, such as coal fire plants, is built, the effects will continue for decades. From this point of view, it is required to take action now toward promoting energy efficiency in order to avoid lock-in to less environmentally-friendly investments in energy-related infrastructure.

Technology Transfer through the Kyoto Mechanism

CTI Capacity Building Seminar for CEE/FSU countries
October 23, 2005

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Ministry of Economy, Trade and Industry, JAPAN
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I. CDM Improvement/Reform

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Current State of Play in CDM

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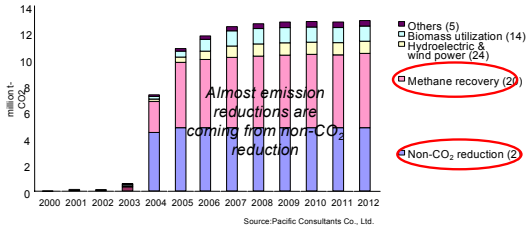
Current Status of CDM Projects

- Almost all of planned projects is HFC-23 and CH4.
- Relatively small CER of energy-related CDM considering that CO2 accounts for a large part of GHG.
- Negligibly small CER of energy conservation CDM

CER of CDM projects under the validation by type



Source:Pacific Consultants Co., Ltd.

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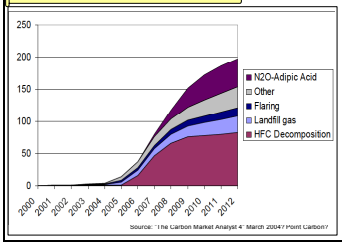
CER Supply Forecast

- Almost 200 Mt CER of HFC-23, N2O, CH4 and other projects around 2012.
- Relatively small CER of energy-related CDM considering that CO2 accounts for a large part of GHG.
- Negligibly small CER of energy conservation CDM
- Potential of HFC-23 and N2O projects are limited in the long run.
- CDM will be dwindling after large-scale HFC-23 and N2O projects are exploited.

CER supplies towards 2012 (million CERs p.a.)



Source: "The Carbon Market Analyst 4" March 2004? Point Carbon?

Potential large-scale projects

?	Methodology Approval	CER production, 2010 (million p.a.)	Number of projects*	Risk
HFC-23	Yes	84	17(11)	Low
Adipic acid N2O	Yes	3	5(3)	Low
LFG	Yes	12	19	Mediu m/high
Flaring	Yes	12	NA	Mediu m/high
Sum	?	142	41	?

*Parenthesis indicates the number of projects in China

Source: "The Carbon Market Analyst4 March 2004? Point Carbon?

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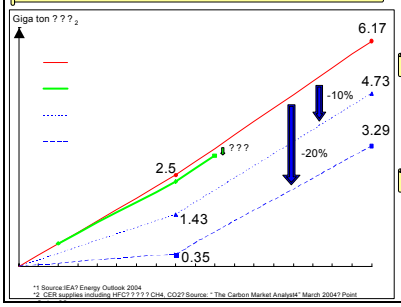
CDM has Not Exploited CO2 Reduction Potential by Energy Efficiency

- Huge CO2 reduction potential by energy conservation
- Small projected-CER by CDM
- Negligibly small projected-CER by energy conservation CDM

? ? $_2$ Emission Increases in Developing Countries? Compared with 2000?



*1 Source:IEA? Energy Outlook 2004
*2 CER supplies including HFC? ? ? ? CH4, CO2? Source: " The Carbon Market Analyst4" March 2004? Point

Japan's History

Japan's industry improved energy efficiency by 40% from 1973 to 1993.

Source: White Paper on Energy 2003

Chinese Potential

More than 26% of energy consumption would be conserved if China could adapt energy efficiency technology on a par with international standards.

Source: "Potential of Energy Efficiency in China", Jul 2003(The Institute of Energy Economics)

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Characteristics of CDM Projects by Type

- HFC-23 and CH4: Easy to set baseline. Large GWP. Large-scale CER per-project. Low cost of CER.
- CO2: Small-scale CER per-project. High cost of CER. Small change of IRR by CER.

Summary characteristics of CDM projects by type

Project types	F-gas reductio n	Reduced CH4 from Landfills, Coal-beds, oil & gas	Energy efficiency	Renewab le electricity	Cement	Sink s
Gases reduced	HFC-23	CH4	Mainly CO2	Mainly CO2	Mainly CO2	CO 2
Scale of per-project reductions	Very High	M-H (also varies)	L	L-M (sig. Variation)	H	L-H
Technology transfer potential	L	M-L	M-H	H	M	n/a
Cost of CERs	Very Low	L-M	L-M (dependin g on sector)	L-H	L-H (depending on where in production chain)	L-M
Difficulties in assessing additionality and baseline	L	L	M	H	L-H	H

Source: "Taking Stock of Progress under the Clean Development Mechanism (CDM)", OECD report

Change of IRR on CO2 Project

Project	Before CDM	After CDM
Optimization and Co-Generation of Energy from Steel Making Process in Brazil ? NM0064)	19.5%	20.5%
Bio-Energy Cogeneration in Thailand ? NM0060?	9? 16%	+2%
Introduction of coal fly ash and fuel switching in cement production process in India ? NM0048?	4%	12%

Source: PDDs submitted to CDM EB

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Issues of CDM

- Small CER in spite of rapidly increasing CO2 emissions in developing countries
- Negligibly small CER by energy conservation and renewable energy CDM
- This is because of difficulty in demonstrating additionality
  - Revenue of CER is much less than that of selling electricity and/or cost reduction.
  - Perverse incentive (Energy saving policies make it difficult to prove additionality)
- HFC-23, N2O and CH4 CDM projects are much more economically attractive because of extremely high GWPs of these gases.
- Energy-related CDM project is not economically attractive.
- CDM will be dwindling after large-scale HFC-23 and N2O projects are exploited.
- Benefit to developed countries, e.g. achievement of reduction commitment in an economically efficient manner
- Limited benefit to developing countries, e.g. HFC-23 project has little ripple effects in the economy.

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COP10 Decision (12/CP.10)

15. *Encourages* project participants to make proposals for new baseline and monitoring methodologies for types of project activities in sectors not yet covered by approved methodologies, such as transportation, energy efficiency and district heating, and the Executive Board to consider such proposals with priority and to continue its work on elaborating consolidated methodologies for new sectors;

18. *Requests* the Executive Board, subject to the availability of sufficient resources, to intensify its work to ensure the proper functioning of the clean development mechanism, inter alia, by developing a management plan as soon as possible, strengthening institutional capacity, and facilitating efficient, transparent, and substantial decisions by the Executive Board and its panels and working groups;

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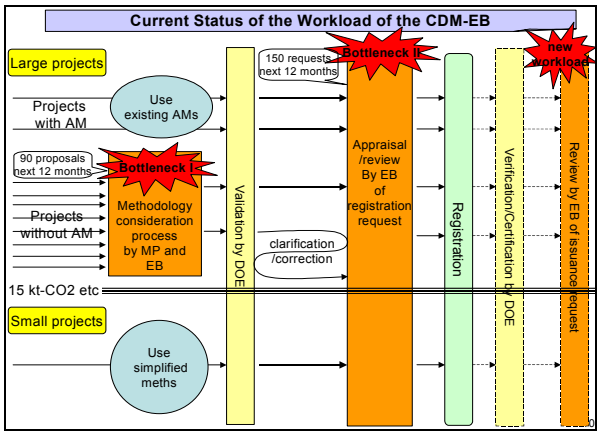

Slide 10

What are options for resolving the bottlenecks and reducing the workload of the EB/MP?

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Proposals for bottleneck I (Meth process)

How to reduce the number of submissions of new meth proposals?

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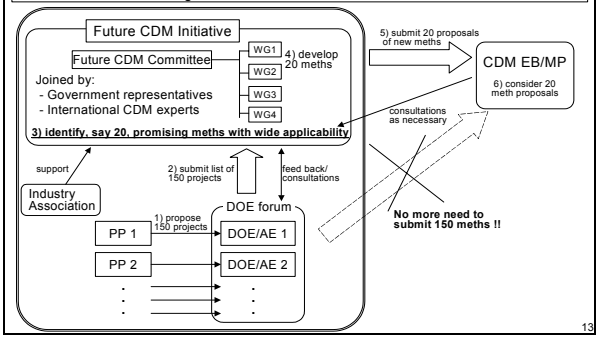
Proposal 1: Facilitating Methodology Approval

The proposed structure and procedures: aim to reduce the submissions of new meths to the EB/MP; through facilitating and systemizing consolidation of meth proposals; under collaboration among PPs, DOE forum and the "Future CDM" initiative.



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History and Action Plans of the "Future CDM" initiative

Workshop joined by CDM experts (Tokyo, Mar)
Launched the initiative and discussed the future course of actions of initiative, focusing on developing methodology that are wide applicable and challenging, but possible within the KP and MA

1st Meeting of Future CDM Committee (Bonn, May)
Five Working Groups were established under the Committee:
1. Consolidated Energy Efficiency Methodology WG
2. Transportation CDM WG
3. Common Baseline Emission Rates WG
4. Program-based/Bundling Approach WG
5. ESCO WG

Workshop with industry representatives (Tokyo, October)
Presented the key ideas of each methodology and examined what types of projects are suitable and applicable

future actions

COP/MOP1 (Montreal, Nov-Dec)
Workshop (Dec 3rd)
Interim outcomes of the 5 WGs, together with several potentially applicable projects for each methodology, will be presented
2nd Meeting of Future CDM Committee (Dec 4th)
COP/MOP discussion
The outcomes of the initiative is expected to be input/reflected in the COP/MOP decision

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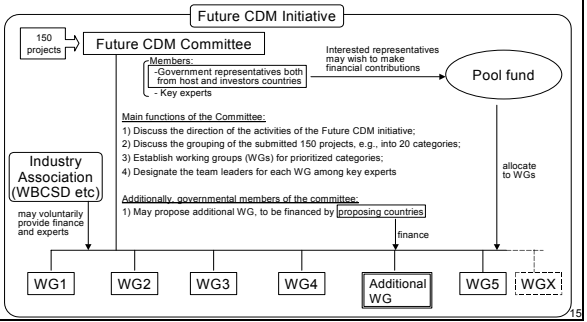
Procedures and Structure for Joint Meth Development: Future CDM Initiative

The Future CDM initiative mainly consists of the political body, Future CDM Committee, and its expert body, Working Groups. The Committee is expected to supervise the overall activities of the WGs. The WGs are supposed to develop meths at request of the Committee, ensuring the broad applicability and practicality, with inputs/supports from relevant industries associations.



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Proposal 2: Bringing up SSC thresholds

	Type I Renewable	Type II EE	Type III Others
threshold, as defined in the CDM M&P	Max output capacity equivalent up to 15 MW	Reduction of energy consumption by up to the equivalent of 15 GWh/yr	Direct emission less than 15,000 t-CO2/yr
possible max ER	18-13.5 kt-CO2/yr(*1)	12-9 kt-CO2/yr(*2)	109 kt-CO2/yr(*3)

Huge Imbalance

Most HFC23/N2O destruction projects can achieve emission reduction of **1-20 Mt-CO2/yr**.

Bring up the thresholds ×?? ×??? ×??

extended max ER	around 1 Mt-CO2/yr

This can lead to fair and sound project portfolio, which is now dominated by HFC23 and N2O projects as shown in the next slide.

*1: Assume the project facilities run 1500 hrs/yr, and the CEF of replaced grid mix is 0.8-0.6 kg-CO2/kWh.
*2: Assume the CEF of replaced grid mix is 0.8-0.6 kg-CO2/kWh.
*3: Assume all generated methane is captured and flared, and project direct emission is limited to CO2 emission from combustion of recovered methane.

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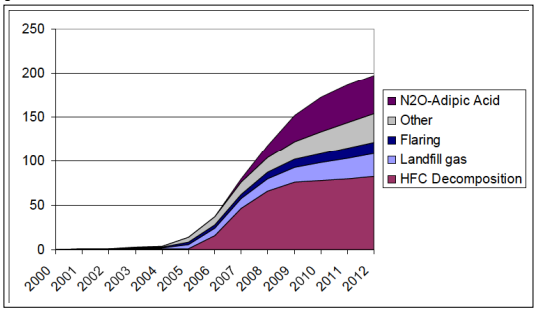
CER supplies towards 2012 (million CERs p.a.)



Source: "The Carbon Market Analyst 4" March 2004? Point Carbon?

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Proposal for bottleneck II (Registration process)

How to improve the quality of registration requests?

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Proposal 1: Facilitate sharing the lessons learned

To take advantage of lessons learned more effectively and efficiently, it is proposed to summarize and make publicly available on the CDM website the following information:

- Main points of each review conducted by the EB;
- The basis of each review/review request (requirements of the COP, COP/MOP or EB decisions);
- Clarifications provided by PP and DOE in the course of review (subject to the rules as regards treatment of confidential information); and
- Reasons supporting EB's decisions (while appreciating the current trend of the EB that is proactively utilizing the electronic decision-making system)

By sharing lessons learned about the review process, it is expected to provide potential CDM project participants effective guidance about the key points regarding review process,. As such, it would reduce the necessity for the EB to conduct reviews.

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Proposal 2: Utilization of Experts in Appraisal

Observation in recent review:
Many problems raised are really technical ones. For instance, methodology is not applied in accordance to what the AM stipulates, and a certain value is miscalculated.

The appraisal process should provide PPs/DOEs with chances to fix such technical problems without triggering reviews. In addition, from the same point of view, the tasks in the appraisal process, now being a heavy burden to the EB members, should be shared with outside experts.
The detail tasks of the experts are proposed as follows:

- Feedback to DOE/PP, if found the technical problems in registration requests.
- Report the result of the checks with any clarifications provided by DOE/PP to the EB
- Draw attentions of the EB to any issues they found unresolved from technical viewpoints, i.e. political issues

The EB, in response to the outputs by the experts, would able to concentrate on such political issues and address them.

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CDM beyond 2012

- Many point out that assurance on continuation of CDM beyond 2012 should be given ASAP.
- Yes, CDM-like mechanism should be further developed to provide business incentive for technology transfer.
- But what does "continuation of CDM" mean?
  - How can additionality be demonstrated if a NAX1 country takes, for instance, economy-wide intensity commitment?

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II. Toward Prompt Start of JI

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Slide 22

ERU can only be issued from 2008

Delay in the process of JI projects would seriously hamper ERU supply in the 1st commitment period

It is imperative, therefore, to promptly start up JI, especially in the hemisphere of track 2, which is to be governed by the JI Supervisory Committee (JISC)

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Possible Ideas for Facilitating Prompt Start of JI

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Principal viewpoints

- Given JI is essentially zero-sum mechanism, unlike CDM, more simplified rules should be applied, ensuring environmental integrity
- Since the JISC looks like the CDM Executive Board, clear guidance to the JISC is necessary in order to fully utilize the lessons learned in CDM
- Particularly, the complex and time-consuming methodology approval process should be addressed in JI

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Ideas for prompt start of JI (1)

Methodology approval

- ✓In interest of prompt start and saving resources, PPs should be given an option to apply the existing methodologies of CDM without having them approved by the JISC
- ✓Simplified methodologies for small scale CDM projects should be applied to small scale JI projects, the thresholds of which are higher than those for CDM

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Ideas for prompt start of JI (2)

Methodology approval (continued)

- ✓New methodology approach, such as benchmark approach and policy-based projects, should be encouraged.
- ✓Top down approach, in which the JISC or its subsidiary expert body develops default methodologies, should be adopted in parallel with the normal methodology approval process

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Ideas for prompt start of JI (3)

Independent Entities

- ✓Accredited DOEs in CDM should be automatically qualified for Independent Entities (IEs) for JI projects
- ✓Validation/verification by IEs should be basically trusted and review by the JISC should be limited to major problems

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Ideas for prompt start of JI (4)

General rules and procedures

- ✓The standing governance rules and operational procedures in CDM, including templates for applying projects, should be applied to JI mutatis mutandis

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Thank you for your attention

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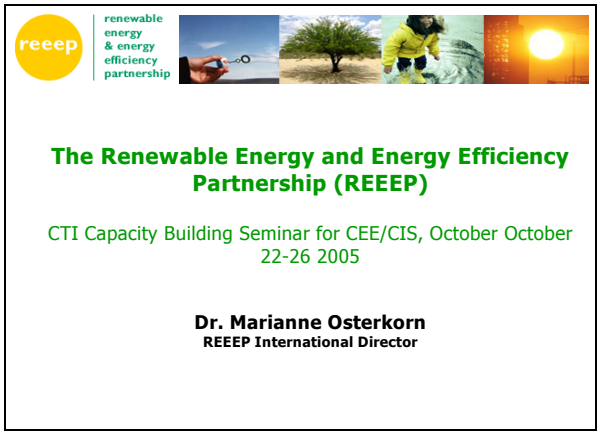
Slide 30

The Renewable Energy and Energy Efficiency Partnership REEEP

Dr. Marianne Moscoso-Osterkorn

REEP



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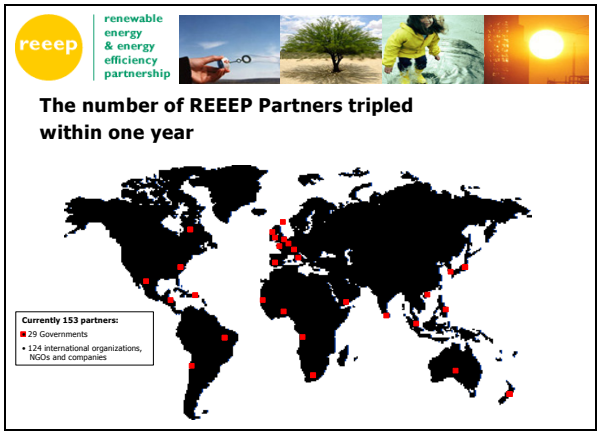

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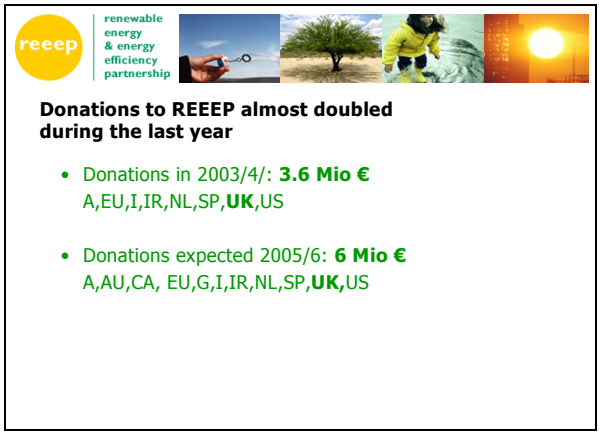

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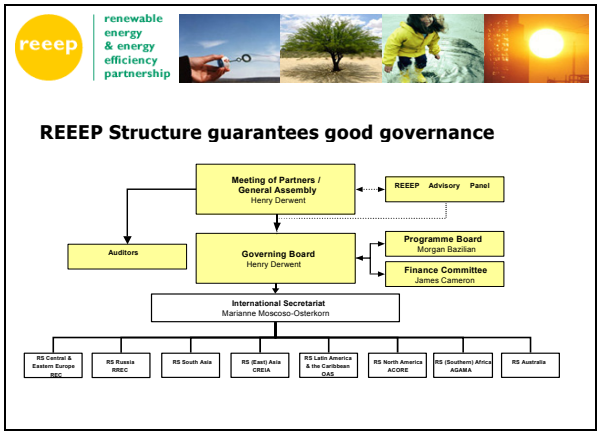

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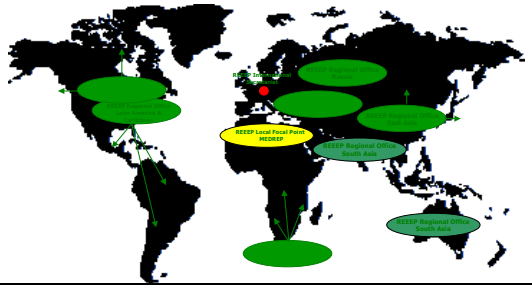
reeep renewable energy & energy efficiency partnership

Delivering Value via Regional Secretariats



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Leveraging existing partnerships and initiatives

REEEP established cooperation with other global partnerships/initiatives/organisations across the sustainable energy sector.

MoUs have been signed with: MEDREP, GVEP, GNESD

Collaborations exist with e.g.:
REN 21
ASEAN
WWF
JREC
CTI
IEA
LEAD
E7
EUEI
UNIDO
CLASP
US Clean Energy Initiative

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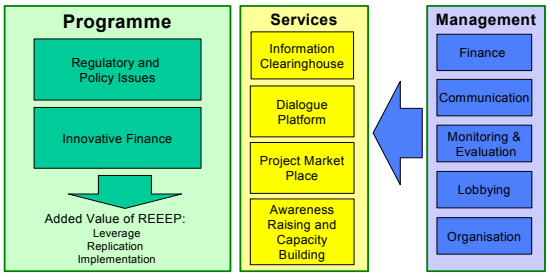
REEEP Activities



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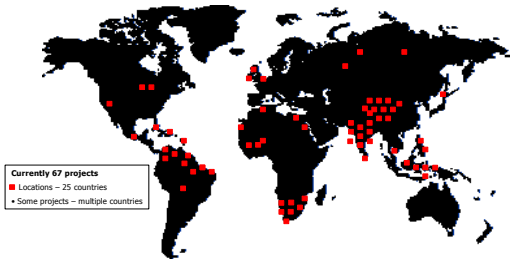
The majority of current REEEP projects is in Brazil, China, India and South Africa



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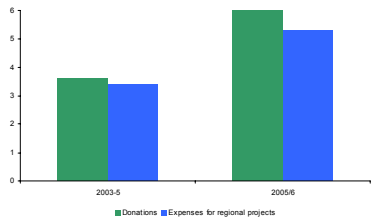
More of 90% of REEEP resources are used for project finance



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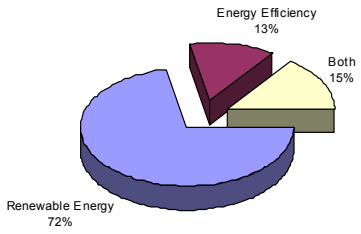
Distribution by Sector



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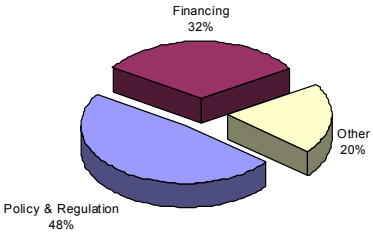
Distribution by Theme



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reeep renewable energy & energy efficiency partnership

The added value of current project activities

Leverage Factor 6.4	5 million € REEEP funds →	32 million € leverage
Replication	At least 3 replications: SERN, Funds for REES	
Implementation	At least 3 implementations started: micro hydro in India, solar in Sri Lanka, REES/solar in urban houses in South Africa	

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Examples of current Policy Support Projects

- Development of sustainable energy plans for three Caribbean islands (Dominica, St. Lucia, Granada)
- Development of a national wind energy roadmap for China;
- Sustainable Energy Regulations Network (SERN) in Africa
- Development of regional energy efficiency standards across APEC countries
- International Sustainable Energy Assessment, On-line database of Energy Agreements;
- Development of Renewable Energy Regulation Methodologies in Mexico;

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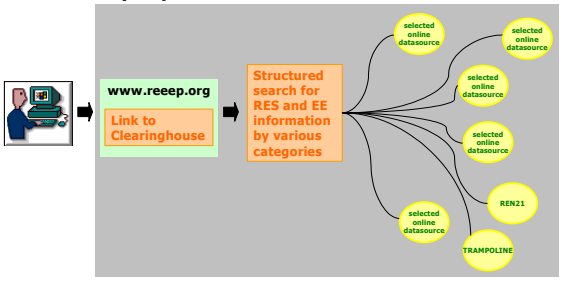
Examples of current projects in Finance

- Support to the 50 m € fund for Renewable Energy Investments in Southeast Asia, China and India.
- Innovative Financing models to accelerate SWH in Brazil and Caribbean;
- Development of business model and community fund for solar water pumps in Brazil
- Financial Model for Renewable Energy Upgrades in Urban Housing in Africa;
- Setting up renewable energy Financing Foundation for ASEAN region

Slide 16

The Clearinghouse only accesses datasources selected by experts



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Benefits of the REEEP Partnership

- International network of decision makers, experts and financiers
- Project result in tangible outputs based on local demand and for global use
- Scale up national or international activities
- Access to and marketing of best practice
- Access to innovative finance mechanism

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Outlook of REEEP activities

- Attract investment (public & private) into the partnership and into RES/EE projects
- Further expand number of partners to increase global presence
- Build capacity from existing projects in order to 'scale-up' learnings into other markets and promote duplication
- Further strengthened collaboration with existing energy initiatives and identify synergies (e.g. CTI, MEDREP, GVEP, GNESD, REN21)

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