



# "Russia needs Kyoto to 'buy' its sustainable economic growth"

On May 21 last, President Putin announced that the positive outcome of the WTO-negotiations with the EU "could not but have helped Moscow's positive attitude to ratification of the Kyoto Protocol." Although this announcement was generally considered as a breakthrough for 'Kyoto', the laboriousness, with which Putin formulated his statement, does leave some room for doubt. JIQ spoke with Mr. Igor Bashmakov, renounced IPCC researcher at Cenef, about the position of the Russian government and the advantages of Kyoto ratification for the Russian Federation.

*JIQ: One of the things missing in Putin's announcement was a timeline for ratification. How should we interpret this?*

Mr. Bashmakov: Putin wants to get a better price for the ratification of the Kyoto Protocol. For the last year, the position of the Russian Ministry of Economic Development and Trade has been that, while 'Kyoto' does not bring many economic benefits for Russia, it can bring political dividends. Therefore, Russia is currently trying to figure out exactly what benefits it can get, and what the appropriate time is to capture these. It is clear, though, that maximum benefits are yet to be reached, and that time flexibility is an instrument to optimize these, if possible.

*JIQ: Mr. Putin repeatedly stated that he cannot single-handedly ratify Kyoto and that the Duma and the Federal Council have to agree with ratification as well. How do you assess the position of the Russian Government?*

Mr. Bashmakov: In my opinion this statement is merely used as an excuse for the lack of action. Presently, President Putin has an utter control of both the government and parliament. This shows from the outcomes of recent legislation debates and actions. Neither Duma, nor Federal Council forms a barrier for ratification. They will definitely act according to the presidential will. About a year ago the government was in favor of Kyoto ratification, but then President Putin, inspired by his advisor, Andrey Illarionov, set the goal of doubling Russia's GDP by 2010. Mr. Illarionov is a strong opponent of the Kyoto ratification and he has taken a pretty vulnerable position: "Russia sells its economic growth for nothing".

*JIQ: With a view to that, do you feel that Russia has made a decent assessment of the advantages and disadvantages of Kyoto ratification?*

Mr. Bashmakov: In my opinion, seven questions need to be answered to evaluate the potential impacts of the Kyoto Protocol ratification on Russia's economic growth:

- What are possible levels of energy production, and what portion of oil and gas revenues is needed to achieve these levels?
- How many oil and gas revenues are needed for doubling Russia's GDP?
- How much energy would then be available for domestic use?
- What does GDP doubling mean for two sectors: oil and gas, and the non-oil and gas sector?
- Can Russia support the required growth of non-oil and gas GDP with sufficient energy services when energy export to finance growth is deducted?
- How far can Russia go with the energy efficiency revolution?
- What are sustainable economic growth rates for Russia before 2012, and how many GHG emissions does sustainable growth generate?

Strangely, over the last 6 years since 'Kyoto', not much research has been done to find answers to these questions. Moreover, research that was carried out did not deliver transparent answers. I feel that Russia urgently needs a 'transparent analyst' to launch a discussion in the framework of transparent models and assumptions instead of in the 'black box' of an analytical group model.

*JIQ: Let us focus further on research. What is the academic basis of the present Russian analyses of Kyoto ratification?*

Mr. Bashmakov: Illarionov believes - his 'bible' is a very selective, and not so reliable, cross-country analysis - that each percent of GDP growth in Russia is to be accompanied by a two-percent growth in domestic energy consumption. This is a very peculiar position for an economist and serious professional. I would raise a number of considerations on this subject. For instance, there is a *law of energy*



*efficiency*: a sustainable way to economic prosperity goes along the energy intensity decline arch. If energy intensity does not grow (as Illarionov projects), but just remains stable in 2003-2010, and Russia doubles its GDP with the present high energy intensity, the capacity to export oil and gas will expire in 2010. In other words, all energy produced will be consumed domestically. If, in addition, the gas price will reach the EU level, domestic gas trade will become as attractive as gas export, so no incentives will be left for the export of gas. Without the hard currency revenues from oil and gas exports Russia will not be able to spur its GDP.

Every economy that uses central planning, irrespective of its climate or size, has to cope with large energy inefficiencies. To illustrate, the Ukrainian economy is four times more energy intensive than the German economy; the energy intensity in Bulgaria is three times as high as in Italy; between Russia and Canada the difference is a factor two; and between North and South Korea the difference is a factor eight. Transition to a market economy allows for the decoupling of economic growth and energy consumption. Poland managed to increase its GDP by 45% during 1990-2001 with a *decline* in the total primary energy supply of 9.3%! Russia has also been reducing the energy intensity of its GDP by 2.3% annually between 2000 and 2003. Still, this decline is insufficient to support GDP doubling (growth will be 50-70% at best). Should Russia choose to implement an effective energy efficiency policy, the same amount of energy could be accompanied by a growing energy productivity, which would generate a much higher GDP.

*JIQ: So, your feeling is that 'Kyoto' would contribute to improving the performance of the Russian industry?*

**Mr. Bashmakov:** Both Russia's economic growth and implementation of the Kyoto obligations are necessary conditions for improving Russia's very low energy efficiency. Just one global illustration: the reduction of the global energy intensity (per unit of GDP) reduced the global energy demand during 1973-2001 by 4.5 billion ton oil equivalent (toe). So, energy efficiency contributed 4.5 billion toe to covering energy service needs, while additional production of all energy resources together was just 4 billion toe! Therefore, energy efficiency improvements broadened the global 'limits to growth'. Today, Russia is in a very similar position: with additional energy production over 2003-2010 limited to 230 mtoe, efficiency improvements in the range of 200-350 mtoe are needed to enable a doubling of GDP. The lower the progress in energy efficiency will be, the lower will be the progress in achieving Putin's GDP growth target.

*JIQ: Apart from the energy efficiency improvements, as a 'Kyoto' Party Russia could also receive a lot of money from international emissions trading, as argued in the JIQ Editor's Note of December 2003. What is your point of view on this?*

**Mr. Bashmakov:** For a couple of reasons, I do not expect extremely large economic benefits for Russia from the flexibility mechanisms. For instance, the allowance

price depends on the quality of product. Knowing the low effectiveness of the Russian bureaucracy, it is hard to expect that allowances offered by Russia to the market will have very high values. Much more importantly, however, ratifying 'Kyoto' implies that a strict national general energy policy will be set, especially with energy efficiency policies and goals. I believe that the crucial impact of the ratification will be that policy makers' attention will switch from the energy supply side to the energy demand side. The major economic benefit for Russia from Kyoto ratification, in my opinion, is that it opens the way to a more sustainable economic growth with higher energy efficiencies. That would make Russia's economy more competitive.

*JIQ: Coming back to the mechanisms. You mentioned the lower quality of the credits. Also, it seems that the general debate on JI in Russia has so far been rather fruitless. Do you feel there is any perspective for JI in Russia?*

**Mr. Bashmakov:** I think that the disagreement in Russia on this issue is not the main reason for the not very bright JI perspectives. Both industries and regional governments are willing to take part in JI, but experiences with JI in Eastern Europe quench hopes for JI in Russia. In my opinion, only when baseline and monitoring/verification procedures for JI

projects will have satisfactorily been sorted out, there could be a larger scope for JI.

*JIQ: Still, despite lack of perspective, some foreign private companies are already investing in energy sector JI projects. Ruhrgas, for example, is investing in energy efficiency projects in gas infrastructure. How do you assess these initiatives?*

**Mr. Bashmakov:** This is an illustration of my earlier point. Russia does not need 'Kyoto' and energy efficiency measures to sell quota surpluses, but rather to 'buy' its sustainable economic growth. Investments in energy efficiency projects, like in the Ruhrgas-Gasprom example, are not so much needed to generate higher revenues from the sale of credits, but rather to increase revenues in terms of costs reduction and to just become really effective and competitive market agents. CENEF, for instance, has developed a US\$ 1 m project for 30 kindergartens in the city of Norilsk with a 3-month payback period. This project will improve the financial shape of the municipality, while bringing emission reductions as a free side effect.

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## Austrian JI & CDM Tender Program

**Austria has recently published its first JI and CDM tender results. It intends to attract a total of at least 25 MtCO<sub>2</sub>eq. via the flexibility mechanisms. Kommunalkredit Public Consulting (KPC), the manager of the Austrian JI/CDM Program, has thus far received 19 Expressions of Interests (EoI), of which 12 are for CDM and 7 for JI projects. JIQ spoke with Mr. Clemens Plöchl of KPC about the details of the program.**

In 2003 the Austrian government appointed KPC as the manager of the Austrian JI/CDM tender program instead of setting up a separate government agency.

**Mr. Plöchl:** "KPC is already managing most of the Austrian national environmental support schemes on behalf of the Republic of Austria represented by the Federal Ministry of Agriculture, Forestry, Environment and Water Management. KPC is a private company that is active in both national and international public consulting. Its role is to manage the tender program. This means that the operational part of the program will be handled by KPC, whereas the political framework of the program will be the responsibility of the Ministry."

The Austrian tender program includes a two-stage negotiation procedure with prior public announcement. In the first stage, expressions of interest (EoIs) can be submitted. KPC will then assess the EoIs on eligibility, both for the appending project and for the applicant. **Mr. Plöchl:** "For the eligibility of the projects we will look at criteria such as: clarity of the proposal regarding the legal entitlement to emission reductions generated by the project, the technical, financial and economic capacity of the project developer, and the project's compliance with all relevant 'Kyoto-rules' and with host country legislation."

When a project has passed the first stage, the project participants are invited to submit a detailed project proposal.

**Mr. Plöchl:** "In this stage, the proposals become more explicit. They have to incorporate the tender dossier, which includes the selection criteria. The projects will be assessed and evaluated on the basis of their performance in terms of: Kyoto-related modalities (e.g. baseline and monitoring plan), economic, technical, ecological, and socio-economic, as well as development criteria. The projects selected will be then invited for further negotiations."

The current tender program is open for submissions until 30 September 2004. Project developers that cannot meet this deadline need not, according to Mr. Plöchl, lose their interest: "The first tender will immediately be followed by another call."

With 19 EoIs so far the Austrian tender has received less attention than e.g. the comparable tender in the Dutch ERUPT program. One reason for this could be the rather small number of Memoranda of Understanding (MoUs) agreed with potential host countries. **Mr. Plöchl:** "In general, we are very pleased about the number of

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projects submitted so far, but of course we are doing everything we can to continuously improve the attractiveness of our program. Compared to the Netherlands' program we would not say that the number of MoUs is the decisive factor. It is rather the number of years that the Dutch have been in the business. The Netherlands' program started in 2000, while the Austrian program only started in 2003. Furthermore, the available budget for the Netherlands' program is 3-4 times higher than the Austrian budget."

As to the geographic focus of the submitted projects, Mr. Plöchl says: "At the moment, the geographic focus of attracted CDM projects is clearly the Far East and South America. The attracted JI project EoIs are mainly from Austria's neighbouring countries, the Czech Republic, the Republic of Slovakia, and Hungary, but we also focus on Bulgaria, Romania and Ukraine. We furthermore believe that Russia will become a focus country once it has ratified the Kyoto Protocol."

Recently, a number of developments have been taking place in the assessment of baseline methodologies by the CDM-EB (see

also pp. 5-6 in this issue). One trend is the move towards standardisation by consolidating a number of baseline methodologies for similar projects into one methodology. According to Mr. Plöchl, this is a very welcome development: "The EB move towards the standardisation of baseline methodologies will give project developers more certainty about how to approach their baseline calculations. There is still a lot of work to do in this respect and it would be interesting to find ways to speed up the process. We would for sure be ready to contribute to this with our work and participation."

Another result of the recent assessments by the CDM-EB is the move towards a qualitative assessment of project additionality. For example, the methodology of the PCF 'El Gallo' project was approved with mainly a qualitative assessment of additionality in terms of identifying barriers and the penetration of the project technology (see also pp. 10-11 in this issue). Mr. Plöchl: "In our view qualitative assessments of project additionality is as important as the so called 'quantitative' assessment, since the profitability of a specific investment is

clearly not the only factor in deciding whether a project will be/can be carried out or not."

In the Austrian tender no specific guidelines on baselines and methodologies are used. Mr. Plöchl: "If every investor country and every host country would apply their own specific guidelines, we would end up with exactly those complexities for project developers which we want to reduce by the standardisation of baseline methodologies, like the MethPanel proposed to the EB. However, we do have some Austria-specific sections in our project design documents. These deal with the ecological and socio-economic-development aspects of the project, because we are especially aiming for projects with high ecological and social quality."

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## ERUPT Additionality Test

**Recently, the Netherlands' government published its fifth JI tender in the context of ERUPT. With this tender legal entities from the private sector are invited to submit JI project proposals to the Dutch government agency Senter Internationaal. For the first time in the ERUPT history, additionality of the projects must be demonstrated next to the baseline.**

On 19 March of this year, Senter published a guidance document on the additionality test required for new ERUPT projects. In this document Senter explains that with the ERUPT additionality test it tries to anticipate that, similar to the CDM project design document, in the future also for JI the additionality of projects will have to be shown: "it can not be ruled out that the same kind of reasoning will be followed for JI projects in the future."

The additionality guidelines developed for ERUPT are based on the additionality tests that have been approved by the CDM EB in the baseline and monitoring methodologies for CDM projects. In the context of the CDM, a number of different additionality tests have been approved, varying from a quantitative investment criteria test to a qualitative barriers assessment. In its guidance document Senter has not selected one of these tests, nor has it made a synthesis of the additionality tests approved. In the ERUPT context, Senter asks project developers to show

additionality of a JI project by picking one test out of three eligible tests.

Project developers that choose the first test option must demonstrate that the project is not just a business-as-usual investment, by showing that an economically more attractive alternative to the JI project exists. For this, project developers must compare the internal rate of return (IRR) or net present value (NPV) for the project (without the value of the credits) with the IRR or NPV of comparable alternative(s). Should the JI project's IRR/NPV be significantly lower than those of the alternative(s), the project is considered additional.

In case project developers opt for the second test, they must show that without the sale of the carbon credits the JI project is economically not viable. According to this test, an additional project has an IRR (without the carbon credits) that is significantly lower than the IRR required for an economically viable project, whereas the IRR including the carbon credits would

be higher than the required IRR. Using the NPV, a project is considered additional if the NPV without the credits would be less than 0 and the NPV including the credits higher than that.

In the third test, project developers need to identify several significant barriers that would have prevented a project from implementation in the absence of the JI credits. Such barriers could be: lack of funding due to perceived risks; technological concern *e.g.* because the technology has never been applied in the country before; prevailing practice in the host country; lack of capacity to properly manage the investment, *etc.* Project developers must demonstrate the existence and significance of such barriers through documented evidence.

Which of these tests to be used is a decision to be made by the project developers.

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# Consolidating CDM Methodologies: Baselines & Additionality

Recently, the UNFCCC Secretariat posted on its Internet site ([unfccc.int](http://unfccc.int)) two draft consolidated baseline methodologies prepared by the CDM Methodology Panel (MethPanel). One methodology is for baselines for landfill gas project activities and the second one deals with baselines for grid-connected power generation projects using renewable energy sources. The MethPanel is also preparing a consolidated text on additionality for the CDM. In addition, the Netherlands and the World Bank recently prepared a joint proposal for testing CDM additionality.

As per June of this year, the CDM Executive Board (CDM-EB) had received 54 new methodologies for CDM baselines and monitoring plans. Twelve of these methodologies had been approved by the CDM-EB (A-status), 32 methodologies were still under consideration by the Board (B-status) and 10 methodologies had not been approved (C-status). Six methodologies of the approved ones had been promoted, after a revision of the methodology, from a B-status in an earlier round to an A-status now (for a complete overview of methodologies approved, see [cdm.unfccc.int/methodologies](http://cdm.unfccc.int/methodologies)).

With more and more methodologies approved by the CDM-EB, there could be a considerable variation in how emission baselines are determined for projects within one category. This trend is observed in Ellis (2003, see below). She categorises the baselines used in actual practice in operating margin (the effect of a project on the operation of power plants on the grid), build margin (the effect of a project in terms of delaying or avoiding the construction of future power plants) and combined margin types of baselines (a combination of the two).

But even within these categories of baselines different methods have been used. For example, some methodologies try to identify within a particular host country a particular, currently operating plant that would have been dispatched in case of newly added capacity. Other methods, instead, apply an operating margin method by taking a weighted average emissions factor for the grid as a whole.

In order to start a process of harmonisation of methodologies per project category (a first step in the direction of baseline standardisation), the CDM-EB requested the MethPanel to prepare consolidated methodologies. On 16 June of this year, the MethPanel submitted two proposals for such methodologies: for landfill gas project activities and for zero-emissions grid-connected electricity generation projects

based on renewables. The draft consolidated methodologies were made available for public comments on the [unfccc.int](http://unfccc.int) Internet site. The Panel recommends that the consolidated methodologies, once agreed by the CDM-EB, could replace approved methodologies in the project categories concerned.

## Landfill

The consolidated methodology proposal for landfill gas projects is based on four approved CDM methodologies:

- Salvador da Bahia landfill gas project, Brazil, developed by ICF Consulting
- Nova Gerar landfill gas to energy project, Brazil, EcoSecurities Ltd
- Durban-landfill gas to electricity project, South Africa, PCF
- CERUPT methodology for landfill gas recovery, Brazil, Onyx.

According to the consolidated methodology for landfill gas projects, emission reduction is calculated by:

- taking the difference between the amount of methane actually destroyed/combusted as part of the project and the methane that would have been destroyed/combusted in the absence of the CDM project (in CO<sub>2</sub>-eq.), plus
- the CO<sub>2</sub> emissions related to the electricity displaced by the project, plus
- the CO<sub>2</sub> emissions related to the thermal energy displaced by the project.

The consolidated baseline methodology takes into consideration that some of the methane generated by a landfill may be captured and destroyed to comply with regulations or contractual arrangements, or to address safety and odour concerns (for further details, see <http://cdm.unfccc.int/methodologies>).

## Renewables

The consolidated methodology proposal for grid-connected power generation from renewables is based on the following methodologies:

- Wigton wind farm project, Jamaica, EcoSecurities Ltd. (B-status)

- El Gallo hydroelectricity project, Mexico, PCF (A)
- Jeparachi wind power project, Colombia, PCF (B)
- Haidergarh bagasse based cogeneration project, India, Haidergarh Chini Mills (B)
- Zafarana wind power plant project, Egypt, Mitsubishi securities (B)
- Bayano hydroelectric expansion and upgrade project, Panama, Econergy International Corporation (B).

The consolidated methodology can be applied to CDM electricity sector capacity additions from hydro, wind, geothermal and solar sources, provided that the project activities represent so-called greenfield projects, *i.e.* they do not involve a switch from fossil fuels at the site of the project activity.

According to the methodology, baselines in this project category must be calculated using a combined margin approach. As a first step, project developers must identify which part of the existing capacity would be dispatched first when new capacity becomes available (operating margin, OM). For the determination of this marginal capacity, project developers can use different options, partly depending on the characteristics of the grid. For example, they could calculate the OM by 'simply' taking the average emissions per electricity unit of all generating sources connected to the grid, either with or without including low-cost and/or must-run sources. They could also use an approach that is more specific about particular plants that are likely to appear in the margin.

As a next step, the build margin must be determined (see above). This emission factor is calculated as the generation-weighted average emission factor of either the five most recent or the most recent 20% of power plants built or under construction in the grid (whichever average annual power generation in MWh is greater). The build margin emission factor is calculated on an *ex ante* basis; only projects with a capacity of more than 60 MW must do an *ex post* update annually during the crediting lifetime.

In the third and final step of this consolidated methodology, the OM and BM are combined as a weighted average. By default the weights are 50% OM and 50% BM, but these weights could differ from project to project. In the proposed consolidated method, an alternative weighting is possible depending on the project circumstances, but it is noted that more analysis on this issue may be necessary.

## Additionality

In addition to consolidated methodologies for particular project categories, the MethPanel is also working on a consolidated text on additionality. At the time this issue of *JIQ* was due for printing, this text had not yet been issued for public comments.

As an input into the MethPanel's elaboration, the Netherlands government (Ministry of Environment and government agency Senter) and the World Bank presented a joint proposal on CDM additionality tests. Similar to Ellis (2003), who singles out from actual practice technology penetration, barriers and cost assessments as main approaches to additionality, they assess additionality on the basis of the methodologies submitted to the CDM-EB so far. As such, they aim at a consolidation of presently applied tests in order to improve the consistency of dealing with additionality in the CDM.

The Netherlands - World Bank proposal for an additionality test consists of four steps:

1. Has the construction of the project already started? If yes, a project can only be considered additional if it can be proved that the early implementation (before registration) only took place because of the expected CER revenues.
2. Does a direct or indirect legal obligation exist that would have made the project necessary anyhow?
3. Determine qualitative or financial/economic barriers that would prevent the project under business-as-usual circumstances.
4. What is the level of penetration in the host country/region of the technology envisaged under the project (common practice test)?

Only those projects that satisfactorily pass through these four steps can, according to this proposal, be considered additional.

### Documents used in this article:

- CDM - Meth Panel, 2004. Draft - approved baseline methodology: "Consolidated baseline methodology for zero-emissions grid-connected electricity generation from renewable sources", UNFCCC/CCNUCC, 28 May 2004.
- CDM - Meth Panel, 2004. Draft - approved baseline methodology: "Consolidated baseline methodology for landfill gas project activities", UNFCCC/CCNUCC, 28 May 2004.
- Jane Ellis, 2003. *Evaluating Experience with Electricity-generating GHG mitigation projects*, COM/ENV/EPOC/IEA/SLT(2003)8.
- Lex de Jonge, Gerhard Mulder and Sandra Greiner, 2004. *Proposal on CDM Additionality Tests*, Ministry VROM, Senter Internationaal and World Bank.

# CD4CDM: pro-active approach for host countries

Presently, the United Nations Environment Programme (UNEP) is implementing the project "Capacity Development for the Clean Development Mechanism" (CD4CDM) with financial support from the Netherlands government. The project particularly focuses on the needs of developing countries in order to enable them to successfully host CDM projects. The UNEP Risø Centre (URC) is the supporting organisation to implement the project.

The main objective of the CD4CDM project is to support developing countries in taking a pro-active approach to participate as equal and reliable partners in the CDM when it becomes operational. In particular, the project aims to:

- Generate in participating developing countries a broad understanding of the opportunities offered by the CDM.
- Develop the necessary institutional and human capabilities to formulate and implement projects under the CDM.
- Help ensure the early success and efficacy of the CDM through creating national capacity to implement the CDM in 12 developing countries.

In line with the twin-aim objective of the CDM, the CD4CDM project intends to assist potential host countries in finding those GHG emission reduction projects that are consistent with national sustainable development goals. Another aspect of the capacity building is to train persons in the countries in evaluating whether a project idea could be approved for development as CDM investment and negotiating possible

financial agreements with CDM project investors, as well as of analysing the technical and financial merits of projects.

The CD4CDM project has selected twelve potential host countries in four regions to participate in the project (see box 1). This year the project team will meet 7 more times at workshops in the participating host countries and regions (see box 2). At these workshop sessions are organised for, among other issues, baseline development and putting together a project design document. According to URC, presently,

## Box 1. Project participants

**North Africa and Middle East:** Egypt, Jordan and Morocco  
**Sub-Saharan Africa:** Côte d'Ivoire, Mozambique and Uganda  
**Asia:** Cambodia, The Philippines and Vietnam  
**Latin America:** Bolivia, Ecuador and Guatemala

Egypt, Morocco, the Philippines and Viet Nam have made a tentative list of potential CDM projects. Some of the other participating countries are in the process of identifying project opportunities for them.

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## Box 2. Workshop dates

June 2004	Fourth National Workshop (PDD Preparation) Fourth National Workshop (Legal Issues) Third National Workshop, Ecuador	Cairo, Egypt La Paz, Bolivia Quito, Ecuador
July 2004	Fourth Regional Workshop	Tunis, Tunisia
August 2004	SSA Regional Training Assembly	Maputo, Mozambique
September 2004	CDM Investment Forum (NA & ME) Fifth National Workshop (National Strategy)	Jerba, Tunisia La Paz, Bolivia Quito, Ecuador
November 2004 to be announced	Fourth National Workshop Training Workshop for officials and public and private project proponents	Morocco

# Orientation Workshop on CDM Opportunities in Small-Scale Sectors

On 25-26 March 2004, Development Alternatives (Climate Change Centre), India, and the Institute for Global Environmental Strategies (IGES), Japan, jointly organised a workshop on CDM opportunities in small-scale sectors like brick manufacture, rice mills, energy efficient buildings and also in the renewable energy sector. The workshop, held in New Delhi, India, was an initiative of IGES' three-year capacity building program on the CDM in India.



The workshop was inaugurated by Dr. Prodipto Ghosh, Secretary to the Government of India, Ministry of Environment and Forests. The workshop, sponsored by IGES, was attended by fifty experts from different sectors, other NGOs and financial institutions.

The focus of the workshop was on capacity Building in small and medium-scale enterprises (SMEs) for the design and implementation of CDM projects in India particularly in sectors such as:

- Brick Manufacture
- Rice Mill
- Energy Efficiency in Buildings, such as hotels and hospitals, and
- Renewable Energy.

This orientation workshop will lead to a three-year program on CDM capacity building in India, which will be carried out by the Climate Change Centre at Development Alternatives and IGES. This program will:

- assist project developers to initiate CDM project activity in their respective sectors,
- facilitate the design, development and implementation of a number of CDM projects in small-scale sectors and strengthen a learning by doing process,
- assist the government of India to achieve sustainable development objectives, and
- assist in efforts focused on climate change mitigation and adaptation, poverty eradication and rural development in the longer term.

Some of the states that would be involved initially in this program are Andhra Pradesh, Rajasthan, Karnataka and Punjab. With a view to this, the meeting aimed at bringing together different stakeholders from state and country levels to a common platform for raising awareness and building capacity on the CDM.

The workshop explored how both the policy makers and project developers could benefit from CDM cooperation in India. Important contributions from the CDM could be that SMEs in India would be able to attract new technology and additional foreign direct investments. As funding is

the common problem for implementation of CDM projects in India, this workshop also highlighted potential benefits for financial and banking institutions by demonstrating the opportunities related to CDM projects.

## Main discussion points

The workshop participants agreed that further streamlining of project design procedures for small-scale CDM projects is desirable. It was emphasized that this project segment forms the heart of the CDM in terms of achieving the twin aim of contributing to sustainable development and reducing GHG emissions. Bundling of projects (e.g. cluster of hundred Vertical Shaft Brick Kiln) would be a good option.

One group of participants argued that an important contribution from capacity building would be a reduction of transaction costs for small-scale projects. This would then function as a catalyst to attract CDM funding and help developing countries to benefit more from the CDM.

According to Dr. Kalipada Chatterjee (*Development Alternatives*), the workshop can be an important milestone in the process of making India benefit from CDM in the long run: "We target sectors whose

growth can contribute to the four pillars of sustainable development – economic well being, technological well being, environmental well being and social well being. The growth of these sectors fuelled by valuing the carbon avoided or reduced has the potential to make our development process more efficient by conserving resources, reducing local and global pollution, thus addressing to mitigation of climate change, and an improved quality of life."

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## Box. Canadian and NSS capacity support to India

The international climate change community is increasingly focussing on the CDM potential in India. A number of international funds and capacity programs have been set up/made available to help identify and develop Indian CDM projects. One of the programs that has recently been set up is a finance facility by the Canadian CDM/JI Office and the Department of Foreign Affairs and International Trade, in cooperation with Natsource. The goal of the CND \$ 300,000 fund is to generate CERs exclusively for the Canadian market. The facility aims to facilitate financial support to Indian entities to undertake CDM preparatory activities. Indian project developers get an interest-free loan of up to CND \$ 40,000; 50% of the loan will be written off if the CERs resulting from the project are sold on the Canadian market. A call for project ideas for this facility has recently been closed. Another initiative that recently proved to be successful is the National Strategy Study for Implementation of CDM in India (NSS). The NSS project pipeline for India contains 67 project ideas. Of these ideas, at least 5 small-scale CDM projects will be developed further into PDD's.

For more information about the Canadian CDM/JI office and the CDM fund, please visit: [www.dfait-maeci.gc.ca/cdm-ji/menu-en.asp](http://www.dfait-maeci.gc.ca/cdm-ji/menu-en.asp)

# The average carbon-stock approach for small-scale CDM AR projects

Harvesting forms an integral part of many forestry activities, involving a significant temporary reduction of carbon stocks. A small-scale CDM project could consist of a single forest stand where all accounted carbon may be removed during a harvesting operation and the time-path of carbon stocks will typically look as in the hypothetical example given in figure 1. The problem with such a project is that it would create ICERs (long-term) or tCERs (temporary) initially, but each time harvesting occurs, some if not all of the ICERs would have to be replaced.<sup>1</sup>

There are 2 options to address this issue:

- a) If the project area consists of many stands of different age, the growth and harvest rate match each other and only small fluctuations of carbon stocks exist. Hence, no replacement will be necessary. However, especially for small-scale projects, this may not be feasible.
- b) A simplified approach for carbon accounting in small-scale projects that are subject to significant variability in carbon stocks over time.

growth of the project until the average carbon stock has been reached and, subsequently, stays constant at the level of the average carbon stock.

Generally, the average carbon stock is calculated as the mean carbon stock over a number of rotations. If any rotation goes, at least partly, beyond the project's end it will be excluded from the calculation, thus avoiding a random influence on the average carbon stock resulting from the arbitrary position of the project end relative to the end of a rotation period. This may cause a disincentive to plan rotations for the best silvicultural results and it would be an incentive to plan the rotations to fit exactly in the CDM project lifetime, e.g. a 4th rotation period, which falls only partly within the CDM project, would lower the carbon average. Project developers in order to optimize a project, will thus always try to end their project on the day after harvesting. The CDM EB might consider projects with a 'forced' fit between rotation length and 20 or 30-year lifetime not to be long-term sustainable, thus 'bad practice'.

verifiable information, and be based on assumptions about tree species, climatic conditions, soil type, management regime, etc. Monitoring would then have to determine if the variables used to calculate the average carbon stock are indeed correct, and if adjustments to the predicted average carbon stock are required.

Should a project choose to make use of the simplified procedure, then the project would only create ICERs during the 'ramp up' period (increase in the green line). Should monitoring show that the average carbon stocks are greater than predicted, additional ICERs could be generated. Vice versa, ICERs would have to be replaced if the average carbon stock is less than expected, e.g. due to a decrease in the harvest cycle length, a decline in growth rates, if the project fails to regenerate the forest after harvesting, or in case of a natural disturbance (e.g. fire, pests, droughts). However, if the subsequent land use is an attempt to regenerate the forest, then a portion of the ICERs could still be retained, thereby serving as an incentive to enhance successful forest regeneration after disturbance.

Thinning of a forest stand affects the average carbon stocks over the entire harvest cycle. The thinning process is usually a silvicultural requirement to grow a healthy forest stand. It is a normal part of forest management and, therefore, can be accounted for in advance. However, thinning can take place at a carbon-stock level below the average. If thinning happens before the average carbon stock has been reached, then monitoring may give 2 different sets of results. For instance, it is possible that from one monitoring event to the next (e.g. 5 years apart) the carbon stocks will still increase. In this case, ICER issuance can still be based on the method described above. In the reverse case it is suggested that further ICERs should not be issued, nor should ICERs be retired, provided that the project is operating as planned. Otherwise there could be a disincentive to thinning, which could highly compromise timber harvest and other sustainable development objectives. We suggest the calculation of time-averaged carbon stocks to be accepted as a valid approach also for baseline calculations.

The work underlying this text has been supported by EuropeAid through the project ENCOFOR. The complete article can be viewed at [www.joanneum.at/encofor/publication](http://www.joanneum.at/encofor/publication).

Figure 1. Rotation periods in a forest stand

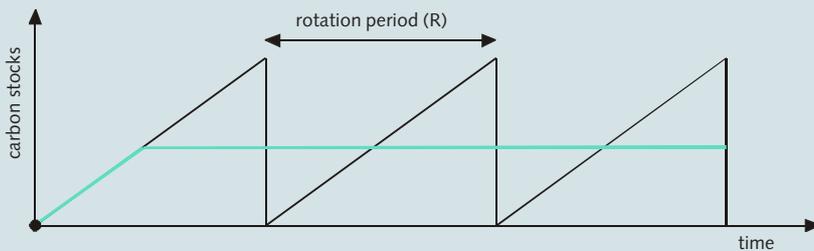


Figure 1 shows a hypothetical forest stand with rotation length R years. Time-average carbon stocks (horizontal green line) versus actual carbon stock (black line). The red line follows the actual carbon stocks, until the average carbon stock has been reached.

The latter should be a non-mandatory option, which leaves the possibility for projects without thinning or harvesting to use accounting based on actual sequestration over the entire lifetime if this is more appropriate. The aim of the simplified approach is both to reduce transaction costs by simplifying carbon crediting, and to reduce the need for scheduling harvest operations just for the sake of avoiding carbon debits. The issuance of ICERs will be based on the time-average carbon stock, shown by the green line in Figure 1. This line follows the actual

In addition, each time the baseline is recalculated, for example, when a new 20-year installment of a project begins, the average carbon stock must also be recalculated - for the remaining years, e.g. in case the project involves 4 rotations of 8 years, the 3rd rotation period will be only half way at 20 years. For the remaining 1.5 rotation periods over the next 20 years a new average must be calculated

The time-average carbon stock must be determined and reported as part of the project design document, and has to use

<sup>1</sup>For simplicity the discussion in this paper is restricted to ICERs.

# Mobilizing EU CDM Investment in Cambodia, Laos and Viet Nam

Since May of this year, in the framework of the Asia Pro Eco Programme of the European Commission a dialogue project has been taking place on CDM Capacity Building in South-East Asia. The project is targeted at the potential CDM host countries Cambodia, Laos People's Democratic Republic and Viet Nam. The work will be completed in May 2006. The project was opened with a kick-off meeting held in Groningen, the Netherlands, on 3-4 June of this year.

The partners in the project are:

- The Hamburg Institute for International Economics (Germany, coordinator)
- The Climate Change Office at the Ministry of Environment (Cambodia)
- The Science Technology and Environment Agency at the Prime Minister's Office (Laos PDR)
- The International Cooperation Department at the Ministry of environment and Natural Resources (Viet Nam), and
- Foundation JIN (the Netherlands).

One of the main objectives of the project is to prevent a situation in which several poorer countries in Asia will receive only little CDM project funding. In comparison with countries like China and India, the CDM potential in these countries is generally considered to be relatively small and consequently they are lagging behind in receiving capacity building support from investor countries (see also "States and Trends of the Carbon Market 2003," PCFplusResearch, World Bank, p.14). With a view to this, the project aims at facilitating a meaningful participation of the three countries in the CDM. The implementation of concrete CDM projects in Cambodia, Laos PDR and Viet Nam will be promoted by supporting interaction between project developers, host country institutions and EU CDM investors.

The project's first focus is on the CDM's contribution to sustainable development in potential host countries. It assists the partner countries in defining domestic criteria for hosting CDM projects and in building domestic institutions to streamline the process of project approval and CER transfer. Once the institutional frameworks will have been established, partner countries will be able to offer more attractive project opportunities to investors.

As a starting point for the work, the project partners will prepare country studies, assessing the context in which potential CDM projects in the three countries would take place. These studies include a review of existing governmental regulations that are relevant for the implementation of CDM projects. They also assess the existing national institutional structures and provide recommendations for CDM Designated National Authorities (DNAs) that have been set up in each of the three countries.

The country context studies will also examine the interactions and trade-offs among public and private stakeholders. In addition, opportunities for cooperation between entities within Laos PDR, Cambodia and Viet Nam on the one hand, and entities in other countries in the ASEAN region and CDM investors on the other hand, will be explored.

Next to these regulatory and institutional assessments, the country studies will undertake analytical groundwork for compiling country-specific and regional data to set up baselines, if possible on an aggregated level so that a multiple of projects could use these. For this purpose, the studies will collect country-specific and regional data for baselines, particularly for those sectors and project types for which approved methodologies already exist.

The overall objective of the studies is to show CDM investment opportunities in the three countries and to make recommendations about the CDM monitoring strategy for each country.

In order to support the countries in formulating national CDM policy criteria and building required institutions, the project will organise national workshops and conferences in order to inform local stakeholders on the CDM modalities and to provide hands-on training. These meetings will specifically focus on developing efficient procedures and stable structure of the DNAs and technical training in the areas of project formulation, baselines, leakage, monitoring, etc. Finally, the project will explore possible CDM project opportunities and help with finding potential investors by conducting a dialogue between potential EU CDM investors and CDM stakeholders in the three potential host countries. An important contribution from the project in this respect would be that transaction costs for CDM projects would to a large extent already be covered by the project activities. Moreover, through the streamlining of procedures, transaction costs for future projects could be significantly reduced.

According to project coordinator Mr. Axel Michaelowa, the dialogue between potential EU investors and CDM stakeholders in the three countries is of key importance: "Given the current weak national allocation plans under the EU Emission Trading Scheme, it will be a challenge to mobilise enough CER buyers from the EU. Moreover, several donor-funded capacity building programmes are already active in Cambodia and Vietnam and we have to be careful to prevent duplication. Through close interaction, it shall be ensured that our project delivers actual added value."

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## 20th SBSTA meeting: CDM-AR

**At the SBSTA-20 meeting in Bonn, 16-25 June 2004, one of the issues discussed was simplified modalities and procedures for small-scale afforestation and reforestation project activities (see also previous page).**

This discussion took place in a contact group. The group considered a technical paper and draft conclusions on simplified modalities and procedures. Although a number of conclusions were adopted in the plenary session on 25 June, discussions on simplified baseline and monitoring methodologies were not completed and will be taken up again at SBSTA-21. Also, parties were unable to resolve issues of bundling (clustering small projects to

decrease transaction costs), leakage (unintended consequences of activities leading to increasing emissions in an area outside the project boundary), definitions of low-income communities, and monitoring.

*For more information on SBSTA-20:*  
[www.iisd.ca/climate/sb20](http://www.iisd.ca/climate/sb20), [unfccc.int](mailto:unfccc.int)  
(official documents)

# El Gallo: Hydroelectricity in Mexico

At its November 2003 meeting, the MethPanel recommended to the CDM Executive Board (CDM-EB) to approve the baseline and monitoring methodology for the El Gallo hydroelectric project. The methodology was subsequently accepted by the CDM-EB as Approved Methodology AM0005 on 14 April of this year. The project aims at supplying power from hydroelectricity to the Mexican power grid. The project is developed as a CDM activity in the Prototype Carbon Fund (PCF). This article describes the project and the methodologies developed to calculate the emission reductions achieved.

The El Gallo project is located on the Cutzamala River, near the town of Cutzamala de Pinzón in the state of Guerrero in Mexico (in the Southern part of the country). The project aims at generating electricity using hydroelectric sources. It will install a 30 MW power plant at the already existing dam of El Gallo on the river. The dam was built between 1979 and 1998 with the objective of irrigation and electricity generation. So far, however, it has only fulfilled the irrigation objective, because the funding required to install power generation equipment was never raised.

With the help of the CDM status (*i.e.* the involvement of the PCF and the revenues from the emission reductions), the project participants (see Box 1) will attempt to collect the necessary funding for using the dam's existing irrigation flow releases for electricity generation as well. The dam contains a regulation facility through water storage capacity so that the project has some flexibility to release water for the hydroelectric generation. However, the project participants clearly state in the project design document that the irrigation demand flows will take priority.

The electricity produced by the project will be sold to Mexican end-users, such as industrial users and municipalities, on the basis of power purchase agreements. The electricity will be transported to the grid via the transmission system of the *Comisión Federal de Electricidad* of Mexico. In the plant so-called Francis-type hydraulic turbines will be used, which, together with the generators, will be manufactured by Alstrom power and VA Tech under an equipment/procurement/construction contract with the project sponsors.

The plant's capacity will be 30 MW and its total annual average output is estimated at 120,668 MWh. 20,514 MWh of this output will be produced during peak load intervals (17% of total output), 65,161 MWh during intermediate load intervals (54%) and 34,994 MWh will be delivered during baseload intervals (29%). The project is

scheduled to start implementation on 1 May 2005, which will also be the beginning of the first crediting period.

The project will reduce GHG emissions by supplying to the Mexican grid electricity that is produced without emitting GHGs. This electricity will replace power produced otherwise by burning fossil fuels elsewhere in the country. The key issue in this respect is to determine which capacity/plant will be replaced by the project? In other words, which currently operational plants and/or planned future capacity will be affected by the project? The project participants addressed this issue in the project's baseline methodology, which is described in further detail below.

## Why additional?

The baseline methodology prepared for the project and approved by the CDM-EB consists of two basic steps, which are each subdivided in a number of substeps. The first step deals with the additionality of the emission reductions achieved. In this part, the project developers have analyzed two indicators for showing why the project would not have been implemented in the absence of the CDM crediting.

The first indicator is an assessment of barriers that under business-as-usual circumstances would have prevented the project from implementation, as well as an analysis of the extent to which the CDM status will help to overcome these barriers. As a second indicator, it is analyzed to what extent the project technology has already penetrated in the power sector in Mexico.

The main barriers to project implementation under business-as-usual listed in the project design document are:

- The limited access to financing. Due to the high domestic interest rates in Mexico (Mexican interest rates of approximately 29% in 1998 and 8% in 2003) in combination with the short loan terms, the project participants had to consider international loans. Although the loan conditions are generally more attractive on the international financial markets, it turned out to be difficult to attract foreign capital. An important reason for this difficulty is that possible international financiers demand power purchase agreements showing that the power produced will be bought by off-takers. Since these off-takers are generally relatively small entities, international financiers found it more difficult to evaluate the reliability and creditworthiness of these entities. This made financiers reluctant to provide funding.
- Moreover, small-scale private sector advanced hydroelectric technology is generally considered as relatively risky by financiers, who, according to the project design document, tend to prefer investments in conventional fossil fuel technologies or large-scale, government-advanced hydro projects.
- Finally, the transaction costs related to the development of a small-scale hydropower project are disproportionately high. Hence, this creates another barrier to implementing the project.

With a view to these barriers, the project participants decided in 2001 to explore the value of the CO<sub>2</sub> emission reductions that could be achieved by the project. This value could generate an extra source of (hard currency) funding that would increase the internal rate of return of the project. Subsequently, the project was developed as a CDM project activity in the framework of the PCF. According to the project design document, the backing of the World Bank has increased the creditworthiness of the investment.

## Box 1. Project participants and ownership

The project participants are:

- Impulsora Nacional de Electricidad (INELEC), S.A. de C.V. – project proponent.
- Corporación Mexicana de Hidroelectricidad, S.A. de C.V. – project sponsor.
- Scudder Latin American Power Fund – project sponsor.
- Prototype Carbon Fund – main CDM contact.

The land and the dam are owned by the Federal Government of Mexico. The *Comisión Nacional de Aguas* (the national committee for water management) is responsible for the administration of the dam.

It is estimated that the project will reduce around 70 kton CO<sub>2</sub> emissions per year and, assuming a CER price of US\$ 4 per ton, this could generate approximately US\$ 280,000 per year. Although the project partners acknowledge in the project design document that this amount is small in comparison with the overall expected annual revenue of US\$ 7.7 m, the fact that the CER revenues will be paid in hard currency makes this part a non-negligible contribution.

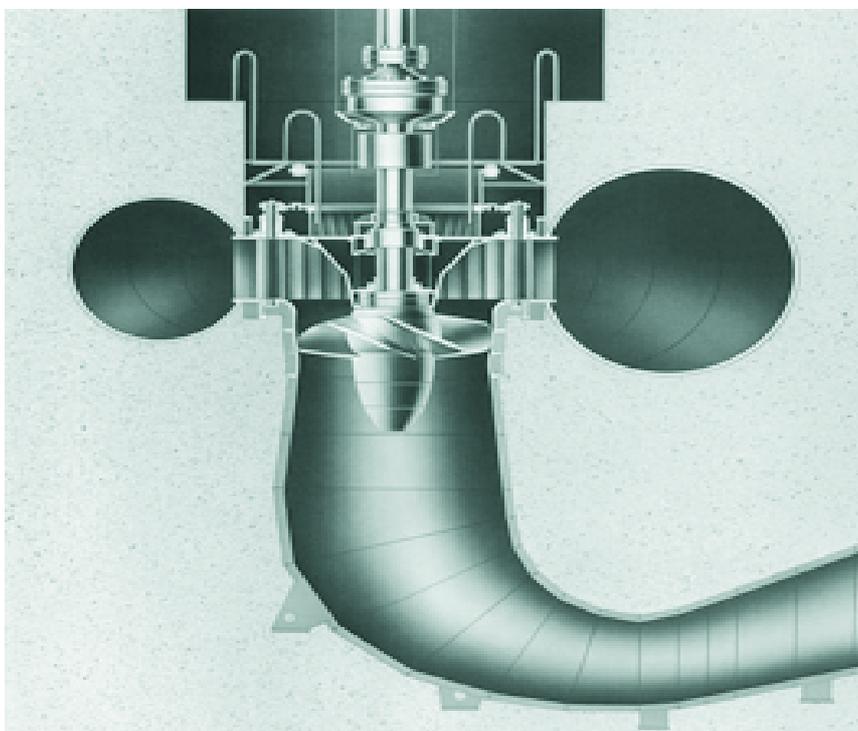
As explained above, the project participants also have looked at the penetration of the project technology in the Mexican power sector. They conclude that of the 200 capacity permits issued by the Mexican government to independent power producers since 1994, only fifteen have been issued for private investments in small hydroelectric plants (the vast majority was issued to conventional thermal plants). Of these 15 plants, eight are still under construction. Moreover, the seven plants, which have been implemented generally, required much less capital than the El Gallo project (15 times to twice as little) or have been undertaken by large industrial firms.

## Baselines

The baseline methodology used for the El Gallo hydroelectric project is a combination of the operating margin and the build margin methods (see also pp. 5-6 in this issue). The first method - OM - estimates the effect of the project on the currently operating plants. In order to estimate this effect, the project participants do not single out a particular plant or capacity that is likely to appear in the margin (to be switched off when new capacity becomes available), but rather, as a proxy, take the average on the basis of Mexico's entire grid. This assumes that basically all existing plant could appear in the margin. The exceptions to this assumption are zero or low operating cost plants that generally are unlikely to appear in the margin. In the case of Mexico these are hydro, geothermal, wind and nuclear capacity.

Using the data for the year 2001 from the official statistics of the Mexican *Secretaria de Energia* a baseline emission factor for the operating margin was found of 0.764 tCO<sub>2</sub>/MWh.

The second method - BM - assesses the extent to which the project replaces otherwise planned capacity additions to the grid. Again, singling out a particular plant or capacity addition is generally difficult. Therefore, as an approximation, a BM baseline emission factor was derived from recently installed natural gas combined



cycle plants, which represent 96% of all recent new capacity installed in the Mexican electricity grid. Also, the *Secretaria de Energia* expects this type of technology to dominate new capacity additions until 2006. Therefore, the project developers consider it reasonable to assume that, under business-as-usual circumstances, newly added capacity to the grid will be natural gas combined cycle plants. The resulting BM emission factor found is 0.404 tCO<sub>2</sub>/MWh.

Combining both factors using a default 50%-50% equal weighting results in an overall baseline emission factor the project of 0.584 tCO<sub>2</sub>/MWh. With this combined emission factor project participants can get around the complexity of identifying a particular capacity that will be affected by the project. In a greenfield type project, such as the El Gallo activity, the power delivered to the grid can both affect an existing plant or a planned additional capacity. The combined factor enables that both possibilities are taken into consideration. In the approved methodology AM0005 (which has been derived from this project's methodology) there is a possibility for project developers to apply a different weighting of OM and BM factors, which depends on the particular circumstances in the host country (e.g. excess capacity in the power sector may imply a lower weight for the BM emission factor).

The project design document proposes that this emission factor will be subject to *ex post* monitoring in the sense that the OM and BM data will be checked after each

year of the crediting lifetime (actual grid average and actual capacity additions). In this monitoring effort, the El Gallo project will not become part of the BM or OM because as a low operating cost plant it will not be considered in the OM calculations and it will probably not be among the dominating recently added capacity used in the BM calculations.

## Emission reduction

As mentioned above, the annual emission reductions are estimated to be 70,484 tCO<sub>2</sub> (= 120,668 MWh \* 0.584 tCO<sub>2</sub>/MWh). Assuming a 21-year crediting lifetime (three periods of seven years), the project could lead to a total abatement of 1.5 MtCO<sub>2</sub>.

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# Facts about the Kyoto Mechanisms

## Trittin offsets conference emissions

The German Government will invest in a bundled small-scale CDM project in India in order to make the International Conference for Renewable Energies 2004 carbon-neutral. This conference, which took place on 1- 4 June, was attended by about 2000 participants from all over the world. The chosen CDM project foresees in substituting traditional community kitchens running on kerosene, diesel and biomass, with solar powered kitchens in India. In total around 30,000 people will benefit from the project. The CERs generated will be sold to the German government via GTZ at a price around €10/tCO<sub>2</sub>eq. According to Factor Consulting, which is coordinating the project, the CDM project will aim to meet the quality criteria of the Gold Standard, the quality label promoted by the World Wildlife Fund.

Source: [www.renewables2004.de](http://www.renewables2004.de), [www.factorag.ch](http://www.factorag.ch)

## Spanish CO<sub>2</sub> injection

The Spanish Repsol YPF oil and gas company aims to develop a CDM project in Argentina. With this development the company has followed up on its announcement in its environmental report over 2003, in which it stated that the company has identified multiple projects in Latin America. The selected project will use a relatively new technology to capture CO<sub>2</sub> and inject it into used oil wells. In the first phase the project aims to capture 0.1 MtCO<sub>2</sub>eq. This amount will increase to 0.5 MtCO<sub>2</sub>eq. once the project is in full operation. It is not clear yet whether the project will be eligible under the CDM. Repsol YPF has tendered the development of the PDD. The company has set up a special Climate Change Unit that will focus on both the development of these kinds of projects, and the provisions under the EU ETS. In the course of 2004 Repsol is hoping to develop another number of CDM projects mostly in Argentina, where the company has major operations.

Source: [www.repsolypf.com](http://www.repsolypf.com), *Point Carbon*, 8 June 2004

## INEOS Fluor sells CERs

The Japanese company INEOS Fluor has confirmed the forward selling of 2 MtCO<sub>2</sub>eq. over a 6-year period to an undisclosed European corporate buyer. INEOS Fluor has invested in a HFC23 project in Ulsan, South Korea. The project's

methodology was the first to be approved by the CDM Executive Board. INEOS Fluor has announced it aims to invest and implement similar projects in India in the near future. Due to the harmful nature of HFC23 (10,000 times harsher than CO<sub>2</sub>), the project in Ulsan will generate an equivalent of 1.4 MtCO<sub>2</sub>eq a year. Natsource Tullett in London brokered the announced trade of CERs. According to Natsource, it is the first of several private sector based trades that are being structured at the moment, as European companies are beginning to look into the possibilities of the flexibility mechanisms as a tool for compliance under the EU ETS.

Source: *Point Carbon*, 24 May 2004

## Allocation Plans criticized

The EU Commissioner for the Environment, Ms. Wallström, has announced she is rather disappointed with the National Allocation Plans (NAPs) handed in so far. The first review, according to Ms. Wallström, shows that the NAPs are lacking information or are otherwise incomplete, which makes it, at least for now, impossible for the Commission to fully assess the plans. At the end of May those governments that had handed in NAPs were sent letters with the request for the necessary clarifications. As mentioned in the Editor's note (see p. 1 in this issue) the room that is left for governments to interpret the definition of 'installations' is another major concern for the Commissioner. According to Ms. Wallström, the different reading of Member states on which installations are to be covered under the Directive need to be worked out to form one common interpretation.

Source: *Point Carbon*, 3 June 2004

## Czech Republic NAP

Around the same time the Czech Republic submitted its allocation plan to the Commission. The Czech plan can be considered rather strict as it proposes to allocate 98% of the 1999-2001 emission levels to the energy sector, although it is in line with the National Energy Strategy (NES). In total 91.56 MtCO<sub>2</sub>eq will be allocated on a yearly basis. At the moment, a consultation round with the public and industry, especially the partly state-owned coal company CEZ, is taking place. The wager in the discussions is the difference in predicted future emission scenarios for the Czech Republic. On the one hand, the NES and the UNFCCC Third National

Communication predictions would justify an allocation around 92 MtCO<sub>2</sub>eq., comparable to the draft scheme. On the other hand, the industry points at the growth line prediction allowed under Kyoto, that would allow for a national allocation up to approximately 100 MtCO<sub>2</sub>eq annually.

Source: *Point Carbon*, 4 June 2004

## Brazilian CDM projects receive DNA approval

Two CDM projects, whose methodologies have recently been approved by the CDM EB, have been approved by the Brazilian DNA. The VEGA Salvador da Bahia project and the PCF Nova Gerar project are the first projects approved by the DNA, after having demonstrated their contribution to Brazil's sustainable development. Another 14 projects that have also been submitted to the DNA, are still awaiting DNA approval. According to the DNA, some of these projects are lacking documentation. Also their methodologies are yet to be approved by the CDM Executive Board.

Source: *Point Carbon*, 4 June 2004

## US banks take responsibility

Recently, the Bank of America has committed itself to reduce its direct and indirect GHG emissions by 7 percent by 2008. Herewith, it joins a group of US banks that have committed themselves to an environmentally friendly investment policy. The commitment of the banks comprises both a reduction of emissions in their own enterprises, and emission reductions that stem from their investments in, e.g. energy portfolios. Furthermore, a no-go zone for investments in areas with threatened rainforests is part of the banks' commitments. As part of its commitment, the Bank of America will commission a research report evaluating the banking sector risk exposure through financing GHG emission intensive industries.

Source: *SocialFunds.com*, 26 May 2004

## Canada and Cuba sign MoU

The Canadian and Cuban government have recently signed a Memorandum of Understanding on the CDM. The Cuban government considers CDM as an opportunity to reduce the presently large share of fossil fuels in the island's power production. Cuba has already established a DNA for CDM projects and made an effort to attract project ideas for further

development. The chair of the DNA, the Ministry of Science and Technology, has compiled a portfolio of 10 potential CDM projects. The signing of the MoU was preceded by a Canadian-Cuban workshop on CDM last February.

*Source: Point Carbon, 8 March 2004*

### Revitalization of JI

On 20 April last, the European Parliament adopted the 'linking directive' to the EU ETS, which allows for the use of JI and CDM projects in the scheme. With the adoption of the directive the potential for JI could increase significantly. The adopted text of the linking directive introduces a mechanism for governments to approve and credit JI projects that lead to a direct but also indirect emission reductions at sources covered by the EU ETS. The latter means that projects in sectors falling outside of the scheme, e.g. solar power projects, can receive JI credits, but the displaced emission reductions have to be deducted from the sector total for the period 2008-12. This new addition to the linking directive may motivate the industry to invest early in projects that would otherwise not have been developed.

*Source: e5 Newsletter, 19 May 2004*

### UNFCCC workshop on JI

On 26-27 May last, the first UNFCCC workshop on the implementation of JI projects was organized in Moscow. The workshop was attended by 130 participants from various Protocol Parties, inter- and non-governmental organisations. The objectives of the workshop were: to exchange views on the rules that have been established thus far for JI projects, to share information on setting up national institutional infrastructure and supportive environments, to share experiences on the development of projects from both a technical and a financial point of view, and to see what lessons can be learnt from the implementation of the CDM.

In a series of sessions these topics were discussed. The first and second session presented a general overview of the Framework of JI and the eligibility criteria that Parties who wish to engage in JI have to meet. The definitions of the two different JI tracks were explained. The faster JI 'track 1' was presented as being more 'Emission Trading like'. Parties meeting this track's stricter criteria can develop and implement JI projects without the JI Supervisory Committee reviewing project baselines and additionality, as any deficits or surpluses will show anyway from the national communications of the parties involved.

The slower JI 'track 2' is more 'CDM-like', requiring third party review. Especially for this track lessons can be learned from the CDM EB and Methpanel experiences.

The Chair of the CDM EB presented these first experiences in a subsequent session. He pointed out that for the setting up of the required CDM institutions communication internally, as well as with the involved Parties and stakeholders has proved to be very important. Also, the CDM has benefited from the system's transparency and sound information dissemination. These factors are crucial to create a level playing field and attain cost-effectiveness and efficiency.

Further workshop sessions elaborated on the practicalities of setting up both national and international JI institutions, the recent market developments (especially the EU ETS), and the possibilities for unlocking JI project potential, e.g. via tender programs.

*Source: unfccc.int*

### Investor countries pick up on JI

A number of initiatives have been undertaken to increase the scope for JI. Denmark recently signed a JI contract with EcoSecurities and Standard Bank London. The public-private contract aims to attract mainly fuel-switch and energy efficiency projects. A total sum of € 8m is made available for the program. At the same time, a number of Danish JI projects is on the verge of implementation or are being implemented. The biomass project in Vatra Dornei in Romania is the first Danish JI project to become operational. The project aims to reduce emissions with 720,000 tCO<sub>2</sub>eq. The resulting credits will be bought by Denmark at € 5.30/ton. Denmark and Romania also agreed on a geothermal project that will reduce emissions by approximately 190,000 tCO<sub>2</sub>eq. over the contracted period at a price of € 4.90/ton.

The Netherlands government agency Senter launched the new ERUPT5 tender last April. The new JI tender is open for submission of project ideas until 7 October of this year. With the new tender the Netherlands is focusing more actively on the Russian JI scope, e.g. the tender information brochure is now also available in the Russian language. The tender aims to attract projects from various sectors that will generate an emission reduction of at least 250,000 tCO<sub>2</sub>eq. over the contracted period. The tender further foresees in the reimbursement of costs for baseline study and validation up to €37,500. At about the same time, a fuel-switch project in Bulgaria, attracted via ERUPT3, became

operational, which will generate approximately 350,000 tCO<sub>2</sub>eq. in emissions reductions at €3.95/ton.

The Germany Energy Agency has closed a contract with the Russian JI Committee and the Energy Department of the city of Moscow. The intention of the cooperation is to realize funding for JI project implementation. The cooperation was set up in the context of the 'Energy Strategy for the Russian Federation for 2020', which claims Russian energy consumption can be halved by 2020 given that the available resources be used more efficiently. From the German industry side an initiative was set up between Ruhrgas and Gazprom to reduce emissions by implementing a software package that uses the gas grid more efficiently.

*Source: www.DanishCarbon.dk, www.carboncredits.nl, www.pointcarbon.com*

### Integrated approach for LULUCF projects

The Climate, Community & Biodiversity Alliance (CCBA), representing environmental organizations, academic institutions and the private sector, has recently published a standard 'multiple benefit' approach for forestry projects for public review. The standards aims to help companies, conservation organizations, governments and international funding groups to efficiently identify cost-effective carbon emission reduction projects that also have a positive impact on biodiversity and local communities. According to project manager John-O Niles, "integrated projects are the most immediate and realistic solutions to combat biodiversity loss, reduce poverty and fight climate change".

Other institutions helping to refine the standards and ensure broad input include the World Agroforestry Center (formerly ICRAF) in Kenya, the Centro Agronomico Tropical de Investigacion y Ensanansa (CATIE) based in Costa Rica, and the Center for International Forestry Research based in Indonesia. The first public comment period is open until July 15th, 2004. Later in this year field-testing of the standards and a second round of comments will take place.

*Source: www.climatebiz.com, 3 June 2004*

## Geographical distribution of CDM / JI Project Initiatives



## CDM Methodologies approved by the CDM Executive Board

### Approved Methodologies (assigned and formatted)

Meth. No.	Type of project
am0001	HFC Decomposition project
am0002	Salvador da Bahia landfill gas project
am0003	Nova Gerar, landfill gas capture
am0004	AT Biopower rice husk power project
am0005	El Gallo Hydroelectric project
am0006	Methane gas capture and combustion from swine manure for peralillo
am0007	TA sugars cogeneration and fuel switch - fuel switch component
am0008	Graneros Plant Fuel Switching Project
am0009	Rang Dong Oil Field Associated Gas Recovery and Utilization Project

### Approved Methodologies (not yet assigned and formatted)

Meth. No.	Type of project
NM0032	Municipal Solid Waste Treatment
NM0021	CERUPT methodology for landfill gas recovery
NM0010-rev	Durban landfill gas to electricity project
NM0001-rev	Vale do Rosario Bagasse Cogeneration project

## JI & CDM Country Initiatives Contact Details:

### Netherlands:

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*Rabobank Fund (CDM)*  
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 Internet: www.kommunalkredit.at

### Denmark

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 29 Strandgade, DK-1401 Copenhagen K.  
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 Internet: www.DanishCarbon.dk

### Denmark Carbon Facility

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 Internet: global.finland.fi/english/projects/cdm

### Canada:

*Canada CDM Fund*  
 Canada's CDM & JI Office  
 tel: (613) 944-3039, fax: (613) 944-0064  
 e-mail: cdm.ji@dfait-maeci.gc.ca  
 Internet: www.dfait-maeci.gc.ca/cdm-ji

### World Bank Carbon Finance

*Prototype Carbon Fund*  
*Community Development Carbon Fund*  
*Biocarbon Fund*  
*The Italian Carbon Fund*  
*The Netherlands Clean Development Facility*  
*The World Bank Staff Climate Protection Program*  
 For more information on World Bank Climate  
 Funds, please visit: carbonfinance.org

## Kyoto Ratification Status\*

	percent of Annex I emissions
<b>Ratified</b>	
- European Community	24.2
- Japan	8.5
- Canada	3.3
- Norway	0.3
- New Zealand	0.2
- Iceland	0.0
- Poland	3.0
- Czech Republic	1.2
- Slovakia	0.4
- Hungary	0.5
- Bulgaria	0.6
- Romania	1.2
- Slovenia	0.0
- Latvia	0.2
- Lithuania	0.0
- Estonia	0.3
- Switzerland	0.3
<b>Total</b>	<b>44.2</b>
<b>Annex I Parties still to ratify</b>	
- Russian Federation	17.4
- Other CEE countries	0.2
<b>Total</b>	<b>17.6</b>
<b>Almost certainly no ratification</b>	
- USA	36.1
- Australia	2.1
<b>Total</b>	<b>38.2</b>

\*(as per 15 April 2004)

## Accredited Designated Operational Entities:

### Det Norske Veritas Certification Ltd.

Contact: Mr. Einar Telnes  
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# Meetings, books, studies and reports

## Recent meetings

14th Meeting of the CDM EB, 12-14 June, Bonn, Germany

*Further information:* The full report of the meeting can be downloaded from the Internet: [cdm.unfccc.int/EB/Meetings/014/eb14rep.pdf](http://cdm.unfccc.int/EB/Meetings/014/eb14rep.pdf)

World Water & Environmental Resources Congress 2004, 27 June - 1 July 2004, Utah, USA

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1801 Alexander Bell Drive, Reston Virginia, USA  
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e-mail: [conferences@asce.org](mailto:conferences@asce.org)  
Internet: [www.asce.org/conferences/ewri2004](http://www.asce.org/conferences/ewri2004)

Climate Policy after Marakech: Towards Global Participation, 4-6 September 2003, Honolulu, Hawaii

The report of this conference became publically available recently and can be downloaded from: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=534163](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=534163)

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15th Annual Earth Technologies Forum and Mobile Air Conditioning Summit, 13-15 April 2004, Washington DC, USA

*Contact:* Earth Technologies Forum  
2111 Wilson Boulevard, 8th Floor  
Arlington, VA 22201  
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tel.: +1 703 807 4052  
fax: +1 703 528 1734  
e-mail: [earthforum@alcalde-fay.com](mailto:earthforum@alcalde-fay.com)  
Internet: [www.earthforum.com](http://www.earthforum.com)

Emissions Trading: Legal, Organisational and Technical Aspects, 15-16 June 2004, Warsaw, Poland

*Contact:* European Business Consulting  
Marszakowska 45/49 lok 31  
00-648 Warsaw, Poland  
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e-mail: [info@europeanbc.pl](mailto:info@europeanbc.pl)  
Internet: [www.europeanBC.pl](http://www.europeanBC.pl)

## Studies & Reports

Magnus Lodefalk, et al. (2004), *Climate and Trade Rules: Harmony or Conflict?*, National Board of Trade, Stockholm, Sweden.

In this study the authors investigate whether or not the Kyoto Protocol and WTO rules are compatible and can coexist. Although the authors reach the conclusion that there is room for a 'friendly coexistence', they argue even more that there is ample scope for trade-related measures pursuant to the Protocol to be in accordance with WTO rules. The WTO rules need to be considered when designing and implementing them. This applies to: product requirements, subsidies, carbon and energy taxes, emissions trading, project-based mechanisms and sinks. The authors recognize three areas of concern: technical regulations and standards on non-product related production and processing methods; border tax adjustments on production, especially regarding exports; dispute settlement systems of the Kyoto Protocol and the WTO may apply the two bodies of law so as to lead to tensions and inconsistencies in their respective outcome. On these issues clarifications are required.

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Wytze van der Gaast (2004), *Technology Transfer through the CDM*, in: *Green Budget News 7*.

In this article the author addresses three questions raised in the context of climate policy discussions: will low-hanging fruits be picked by CDM, what does CDM contribute to long-term sustainable development, could CDM slow down technology innovation? Answering these questions the author argues that CDM will likely contribute to sustainable development, without picking the low-hanging fruits. Furthermore, it may very well contribute to technology innovation and dissemination because new technologies often face a 'lock in' effect in the North, were this does not always exist in the South.

*The paper can be downloaded from:*  
[www.eco-tax.info/downloads/GBN7.pdf](http://www.eco-tax.info/downloads/GBN7.pdf)

Dietrich Borst (2004), *The German NAP: Bureaucratic, inefficient, unclear and incompatible with the EU Directive*, in: *Emissions Trader, Environmental Marketing Association*.

In this article the author analyses the contents and political process of the German National Allocation Plan. According to the author, the NAP was amended over 50 times two days before adoption in Parliament. Due to the many alterations, the German NAP is no longer comparable to the initial plan presented to the EC and no longer in line with the Directive text. The author warns for a number of uncertainties in the NAP as to the legal aspects, the disincentive for early action, and grandfathering method. The author emphasizes the EC is likely to disapprove the plan, when one considers its earlier statements.

*The paper can be downloaded from:*  
[www.emissions.org/publications](http://www.emissions.org/publications)

Jepma, Van der Gaast (guest editors) (2004), *PROBASE special Issue*, in: *Mitigation and Adaptation Strategies for Global Change*, Kluwer Academic Publishing.

Recently, a special issue of MITI was published. In this issue a number of researchers from the EU 5th framework program PROBASE present 6 articles on issues that were investigated. In PROBASE the scope for standardization of baselines for JI and CDM projects was explored. The articles in this publication refer to topics discussed in that research: streamlining procedures for the use of multi-project baselines; a multiple benchmark system application to Indonesia, Russia and South Africa; a web-based manual for estimation of emission reductions (e-Serem); baseline standardisation with optimising energy-system models; preserving environmental integrity in standardised baselines: the role of additionality and uncertainty; and Institutional and cost implications of multi-project baselines.

*For more information on MITI Special Issue: PROBASE, please visit:*  
[journals.kluweronline.com](http://journals.kluweronline.com)

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**Abbreviations**

AAU	Assigned Amount Unit
AIJ	Activities Implemented Jointly under the pilot phase
Annex A	Kyoto Protocol Annex listing GHGs and sector/source categories
Annex B	Annex to the Kyoto Protocol listing the quantified emission limitation or reduction commitment per Party
Annex I Parties	Countries with a quantitative CO <sub>2</sub> target (OECD, Central and Eastern European Countries, listed in Annex I to the UNFCCC)
Annex II Parties	OECD countries (listed in Annex II to the UNFCCC)
non-Annex I Parties	Countries without a quantified CO <sub>2</sub> target (also non-Annex B)
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CEE	Central and Eastern Europe
CER	Certified emission reduction (Article 12 Kyoto Protocol)
COP	Conference of the Parties to the UNFCCC
COP/MOP	COP serving as the Meeting of the Parties to the Kyoto Protocol
ERPA	Emission Reduction Purchase Agreement
ERU	Emission reduction unit (Article 6 Kyoto Protocol)
ERUPT	Emission Reduction Unit Procurement Tender (in the Netherlands)
EU ETS	European Union Emissions Trading Scheme
GHG	Greenhouse Gas
IET	International Emissions Trading
JI	Joint Implementation
KP	Kyoto Protocol
LULUCF	Land Use, Land-Use Change and Forestry
MoU	Memorandum of Understanding
PCF	Prototype Carbon Fund (World Bank)
PPD	CDM Project Design Document
SBSTA	UNFCCC Subsidiary Body for Scientific and Technological Advice
SBI	UNFCCC Subsidiary Body for Implementation
UNFCCC	UN Framework Convention on Climate Change

**JIQ Meeting Planner**

**25-27 August 2004, Santiago, Chile**

International Transportation and CDM workshop.  
 Contact: Ms. Jodi Browne, International Institute for Sustainable Development, 250 Albert Street, Suite 1360, Ottawa, Canada, tel.: +1 613 238 9821, e-mail: jbrown@iisd.ca, Internet: www.iisd.org/climate/south/ctp.asp

**20-22 September 2004, Kiev, Ukraine**

Second International Conference on Biomass for Energy.  
 Contact: Dr. Tetyana Zhelyezna, Scientific Engineering Centre, PO Box 66, Kiev 67, Ukraine 03067, tel: +308 44 453 2856, fax: +380 44 456 6091, e-mail: conference@, Internet: www.biomass.kiev.ua

**3-5 November 2004, Auckland, New Zealand**

Climate Change and Business: The Australia-New Zealand Conference & Trade Expo 2004.  
 Contact: Conference Secretariat, tel.: +64 9360 1240, fax: +64 9 360 1242, e-mail: secretariat@climateandbusiness.com, Internet: www.climateandbusiness.com

**16-17 November 2004, Brussels, Belgium**

Toward a Pan European Renewables Market.  
 Contact: Eurelectric, 66 Blvd. de l'Imperatrice BE, 1000 Brussels, tel. +32 2515 1062, fax: +32 2515 1069, e-mail: events@eurelectric.org, Internet: www.eurelectric.org

**6-17 December 2004, Buenos Aires, Argentina**

Tenth Session of the Conference of the Parties (COP 10).  
 Contact: UNFCCC Head Office, P.O. Box 260124, D-53153 Bonn, Germany, e-mail: secretariat@unfccc.int, Internet: unfccc.int/cop10



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