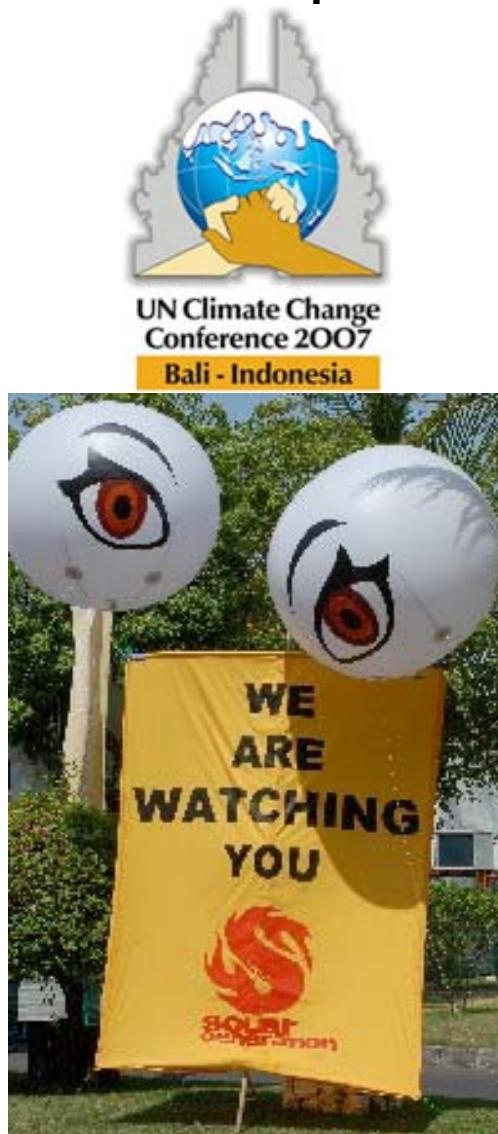




UN Climate Change Conference, Bali Indonesia UNFCCC COP13/MOP3

SNV Netherlands Development Organisation



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1. Background to SNV participation

In 2006 SNV was granted accreditation as an observer organisation to the United Nations Framework Convention on Climate Change (UNFCCC). Consequently, SNV was represented, for the first time, at the annual Conference of Parties to the UNFCCC and Kyoto Protocol in Nairobi in December 2006.

The report of SNV's Nairobi delegate recommended that future SNV participation at UNFCCC conferences should include a broader range of expertise. As it emerged that forestry would be the major topic at this year's conference and that a number of key decisions regarding the CDM would be made, it was decided to nominate a team of two advisors to represent SNV in Bali to cover both CDM and forestry-specific issues. This report, therefore, focuses on these issues. The lesser attention to adaptation, technology transfer and other issues does not reflect their importance in the conference, but merely the technical focus of the SNV delegation.

2. Introduction to UNFCCC terminology

The **UNFCCC** includes all UN member states. Representatives of the states meet annually for a Conference of Parties (COP) to pursue negotiated agreements for adaptation to and mitigation of climate change. Parties at the **COP** are **encouraged** to stabilise and reduce greenhouse gas (GHG) emissions. Bali was the 13th such conference and is hereafter referred to as **COP13**.

The COP13 agenda was dominated by the pursuit of a successor to the **Kyoto Protocol**, to include all parties to the UNFCCC.

The Kyoto Protocol (KP) is the existing international package of measures to address climate change, negotiated by UNFCCC parties in Kyoto in 1997. It came into force when at least 55 member states (representing at least 55% of global greenhouse gas emissions in 1990) had ratified the agreement. Since coming into force, parties to the KP have met annually, to coincide with the COP, at a Meeting of Parties (MOP). Parties at the **MOP** are **committed** to stabilise and reduce GHG emissions. Bali was the 3rd such meeting of KP signatories, which is hereafter referred to as **MOP3**.

Several countries, most notably the United States, have not ratified the KP and were therefore present at COP13 meetings, but *not* MOP3.

The KP aims for a global reduction of GHG emissions to at least 5% below 1990 levels. These reductions must be achieved within a five year **commitment period** from **2008-12**. However, the global target presumed that all UNFCCC parties would ratify the Protocol. Without ratification of major emitters there is no chance that the target will be met.

Under the KP, only developed countries are committed to specific GHG emission reductions by the end of the commitment period. These countries are listed in annex 1 of the KP, along with their respective reduction commitments. They are therefore known as **Annex 1 countries**. Developing countries, which include

major emitters such as China and India, have no specific commitments under the KP and are known as **non-annex 1 countries**.

The KP relies chiefly on market-based mechanisms to help annex 1 countries to achieve their emission reduction targets. The EU has initiated its own Emissions Trading System (ETS) ahead of the commitment period to help member countries reduce the CO₂-emissions of their big industrial installations.

The MOP3 agenda was dominated by issues concerning implementation of the Clean Development Mechanism (**CDM**).

The CDM allows annex 1 countries to achieve a part of their reduction target through projects in non-annex 1 countries. Projects which demonstrably contribute to reduced GHG emissions are issued with Certified Emission Reductions (**CERs**) by the UNFCCC. Annex 1 countries can purchase CERs and use them to count towards their emissions reduction targets in the KP commitment period. CERs will only be issued if the UNFCCC is convinced that the project would *not* have been implemented in the absence of the CDM, a condition known as **additionality**. The EU-ETS also allows industrial installations to use CERs from CDM projects to cover a limited proportion of their CO₂-emissions.

3. The Bali conference in context:

Intergovernmental Panel on Climate Change (IPCC) 4th Assessment Report¹

Since its inception in 1988, the IPCC has issued 5-yearly assessment reports of the state of the global climate, trends in climate change and, in particular, the evidence for anthropogenic influence on these trends.

The 4th report was released in four instalments in 2007. Following on from the Stern Report at the end of 2006, it reiterated the clarity and the urgency of the scientific evidence for anthropogenic climate change.

Based on a range of scenarios with differing stabilisation levels of atmospheric CO₂, the IPCC concluded, with confidence, that global GHG emissions must be reduced by **25-40% below their 1990 levels by 2020**. If this target is not met, the opportunity to take active measures to slow down and mitigate the adverse effects of global warming will no longer be available.

The IPCC's 'best case' scenario, in which mitigation measures are effectively implemented, will see global temperatures rise by 1.8°C and global sea levels by 25 cm over the 21st century, enough to make some small island states uninhabitable and to threaten the existence of low-lying megacities such as Ho Chi Minh City and Miami.

Atmospheric concentrations of GHGs, currently at 375 parts per million (ppm), must be stabilised between 450-550 ppm if this best case scenario is to be

¹ http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf

realised. It is highly unlikely that even the most stringent mitigation measures will keep concentrations below 450 ppm.

UNFCCC targets: the 'Bali Roadmap' and 'Copenhagen Protocol'

Spurred on by the urgency of the IPCC report and forewarned by the slow pace of negotiations to date, the UNFCCC has set ambitious targets for the next phase of mitigation measures.

The '**Bali Roadmap**' was intended to be the first step towards a new agreement to replace the KP. This was the key objective of COP13. The Roadmap was not intended to bind parties to any new commitments. It was intended to set out the framework and timetable for detailed negotiations, leading towards an eventual agreement at COP15 in Denmark 2009 (currently dubbed the Copenhagen Protocol, but this may change). This would give parties a further three years to prepare for full implementation of the new agreement.

The UNFCCC's specific hopes for the Bali Roadmap were:

- Unanimity – this was accorded top priority. Proceeding without some parties (e.g. USA) was unthinkable
- Clear recognition of the findings of the IPCC – although the Roadmap would not include any specific national commitments, recognition of the IPCC's assessment of the mitigation measures called for at the global level was expected, preferably with reference to the 25-40% emissions reduction target mentioned above
- Negotiation processes for four key building blocks of the 'Copenhagen Protocol':
 - Mitigation – measures to reduce GHG emissions
 - Adaptation – measures to reduce the harmful impacts of climate change
 - Technology cooperation – transfer of information, technology and skills between parties, to assist in mitigation and adaptation measures
 - Financing – emissions trading systems and regulatory environment. Cap and trade or 'carbon tax'?

Political environment

The **G8** meeting in Germany in June had raised hopes for Bali. For the first time, the **Bush administration** acknowledged in unambiguous language that climate change was real, was largely the result of human activity and was worthy of coordinated international action to mitigate its harmful effects. The G8 further stressed the importance of addressing deforestation within the climate change debate, in line with the emerging political and scientific consensus. Accordingly, they tasked the **World Bank** to develop a **Forest Carbon Partnership Facility (FCPF)** to assist countries at greatest risk of deforestation to prepare for a forest accounting system (see below).

The Bush administration launched an initiative to bring together the **world's top GHG emitters** to a conference in early 2008 to discuss mutual, but voluntary, curbs on their emissions. The invitees, including India and China, responded without a great deal of enthusiasm, seeing this move as a distraction from the business in Bali.

Australia voted in a new Labor government, days before the start of the Bali conference, in an election in which global warming was, if not the key issue, certainly one of the most obvious points of difference between the two main parties. The new prime minister ratified the Kyoto Protocol within hours of assuming office, leaving the US as the only developed (Annex 1) country yet to ratify.

The IPCC and **Al Gore** were awarded the Nobel Peace Prize for their combined efforts in the climate change arena. The Nobel Committee's decision was intended to increase the media attention on this issue and achieved the desired effect. The award ceremony took place in the middle of the Bali conference, by happy coincidence.

4. Party positions in Bali:

The key players at the COP13/MOP3 took distinctive postions within the negotiations and shaped the outcome accordingly. These positions can be summarised as follows:

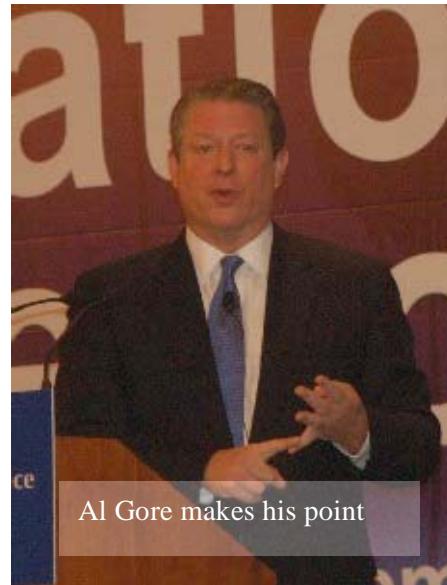
USA: Despite the slightly raised hopes of flexibility due to the G8 initiative, it was no real surprise that the Americans implacably blocked progress towards agreement on the Bali Roadmap.

Their main stated demand for a future agreement was that the major emerging economies, particularly India and China, must commit to substantial emissions cuts along with the current annex 1 countries. If this was their only point of contention, a negotiated solution could surely have been reached. However, they further demanded that the Roadmap should include no reference to specific targets, in particular the 25-40% target prescribed by the IPCC. Their delegation claimed that these figures pre-empted the outcome of the negotiations for the Copenhagen Protocol. Other sticking points included their reluctance to commit to technology transfer and adaptation mechanisms for non-annex 1 countries.

Senator John Kerry led a 'parallel' delegation intended to demonstrate to parties that the successor to the Bush administration would negotiate more constructively. Bush's other defeated rival, Al Gore, advocated leaving the Americans out of the Bali Roadmap in order to preserve a meaningful document. A 'blank space' should be left for them to join after the 2008 presidential election.

Canada and Japan: The main allies of the US in Bali. Both signatories to the Kyoto Protocol but unlikely to meet their commitments by 2012 and keen to set more fluid, voluntary targets in future. Focussed on opposition to the inclusion of the IPCC's targets.

Australia: Their ratification of the KP gave a positive jump start to the conference and earned their delegation an ovation at the opening session. However, PM Rudd had said during the election campaign that he would wait for reports from a national commission in 2008 before making any commitments to future emissions



Al Gore makes his point

reductions. This position meant that his delegation frequently sided with the US against inclusion of IPCC figures. Though they softened their position in the second week, they offered no overt backing of the EU's stance against America.

EU: The main drivers for a strong document, including the IPCC's targets, technology transfer and adaptation mechanisms. Inclusion of the 25-40% target, the EU argued, would send a clear message of commitment by all signatory countries. Perhaps more importantly, **a roadmap needs a destination.** In the EU's view, the IPCC's broad figures set the parameters within which the commitments of all parties must be accommodated. Without them, negotiated commitments are essentially arbitrary, which was a key criticism of the Kyoto Protocol. Most non-EU European countries aligned themselves with the EU position during the COP13/MOP3.

In MOP3 discussions regarding the CDM, the EU favoured a more robust mechanism to ensure additionality. It was sceptical of the effectiveness of ARCDM but favoured the reintroduction of a measure that would allow biogas projects to be issued with CERs.

China: Positioned itself as the representative of non-annex 1 countries. In this capacity pushed hard for commitments from annex 1 countries on adaptation and technology transfer. They also committed to engage in 'South-South' technology transfer with African countries. Actively promoted themselves as flexible and constructive, in contrast to the Americans.

Indicated willingness to accept, on its own behalf, future caps on emissions under the successor to the Kyoto Protocol. However, this was conditional on the inclusion of the US in the Roadmap.

As the chief beneficiary, to date, of the CDM, China was not keen on EU calls for greater probity of individual projects, fearing that this would overload the CDM Executive Board with unnecessary work. They favoured a simplification of the regulations and pushed for the inclusion of a Carbon Capture and Storage (CCS) mechanism which would benefit rapidly industrialising economies.

Brazil: A significant player in the negotiations for a forestry mechanism. With the inclusion of forest-related emissions in national totals, Brazil becomes the world's 3rd biggest emitter and the main beneficiary of a mechanism to recognise emission reductions from avoided deforestation.

However, Brazil was chiefly responsible for scuppering a deal on avoided deforestation at COP12 in Nairobi. This was due to their insistence on a narrow mechanism that included only deforestation and not degradation. Outwardly, their reasoning was that degradation is too complex to measure and would make the mechanism unworkable. More significant, perhaps, was that a deforestation-only mechanism would benefit only 8 or 9 countries whereas degradation would extend the benefits to most non-annex 1 countries, result in a much greater total volume of forest-related emission reductions and thus suppress the value of forestry credits.

Brazil prevented the launch of a forestry mechanism altogether rather than see the creation of one which was not in their best interests. They came to COP13 with a similar agenda.

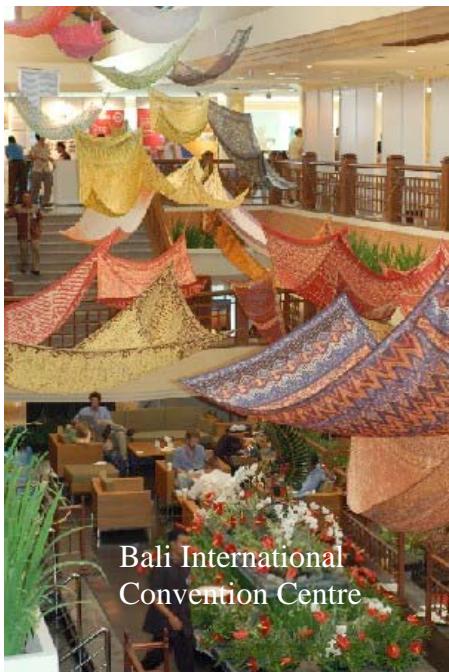
G77: The G77 group of developing countries at the UN was formed in the 1960s and has since expanded to 130 countries but kept its original name. They had a well-coordinated position at the COP13/MOP3, officially chaired by Pakistan but often allowing China to speak on their behalf.

The group used their influence mainly to push strongly for technology transfer and adaptation mechanisms in the Bali Roadmap. However, in MOP3 their interests diverged somewhat regarding CDM implementation. African nations highlighted the disproportionate concentration of CDM projects in China and the very low uptake in Africa. They advocated the facilitation of small-scale CDM projects to address this problem.

Russia: Russia kept a low profile in Bali. When they made interventions they tended to back the American position, opposing targets in the Roadmap. They are expected to be canny negotiators over the coming two years but they did not give much away regarding their position.

Indonesia: Like Brazil, Indonesia have a strong interest in the forestry mechanism and would normally be sympathetic to their position. However, their role as conference hosts made them particularly eager to secure the widely-expected agreement on forestry and thus willing to make significant concessions.

5. Decisions of COP13/MOP3:



Bali Roadmap²

Unanimous agreement was reached after an extra day of tense negotiations. The US managed to keep the 25-40% target out of the final document but it was still referred to in a footnote. In its place, the US agreed to a text that '**recognises that deep cuts in emissions will be required**' to achieve the objective of the UNFCCC. However, even after the EU made this concession, the US blocked agreement based on the lack of a clear commitment to GHG emission reductions from non-annex 1 countries. Last minute pressure, largely from G77 parties, encouraged them to back down on this issue.

The bad news is that this is a considerably weaker document than the UNFCCC had hoped for. The omission of the IPCC-sanctioned target removes any meaningful commitment from the text.

The good news is that this is just a roadmap, and that **nothing has been ruled out** of the final agreement due in December 2009. The four building blocks of the agreement (mitigation, adaptation, technology transfer and financing) are all

² http://unfccc.int/files/meetings/cop_13/application/pdf/cp_bali_action.pdf

outlined, as is a timetable for meetings regarding each block. The real negotiations start now.

The USA was chiefly responsible for the disappointing result but it is likely that the 2008 presidential elections will deliver an administration with a more constructive approach. Indeed, it has been suggested that the next COP/MOP (in Poznan, Poland) be delayed by two months until February 2009 to allow the new US administration to take part.

Genuine American leadership would be an enormous boost to the chances of a workable Copenhagen Protocol but would also shift the focus to other parties which have so far shied away from making clear commitments of their own, including China, India, Russia, Japan and Canada.

Reduced Emissions from Deforestation and Forest Degradation (REDD)³

There is widespread agreement that the outstanding success of COP13 was a consensus on the establishment of a forestry mechanism for the Copenhagen Protocol. About 20% of the world's net greenhouse gas emissions are caused by tropical deforestation.

REDD was the hot topic leading up to the conference and was the subject of at least a third of the side events over the two weeks, including a dedicated 'Forestry Day' hosted by the Centre for International Forestry Research (CIFOR) and the Indonesian Forestry Ministry on the middle Saturday.

The original arguments against including avoided deforestation measures in the Kyoto Protocol centred on the scientific uncertainty regarding calculation of the carbon stocks contained in natural forests and the practical difficulties of monitoring changes in these stocks. These problems are now soluble, or will be by 2012. In addition, it was agreed that credits issued under REDD will be long-term CERs, equivalent to those issued through regular CDM projects (thus avoiding the key disadvantage of ARCDM, see below).

In the course of negotiations, Brazil softened their position to the extent that the final REDD agreement was much broader than most observers had expected. Not only did it allow for inclusion of reduced forest degradation, but the final two paragraphs leave the door open for a wide range of other mechanisms to be included, such as:

- Conservation of existing carbon stocks: In contrast to their previous 'deforestation only' stance, Indonesia seem to have pushed for this as a means to include conservation of large tracts of peat-swamp forests. This is a controversial move with regard to additionality. It can be interpreted as a means for developing countries to be paid for managing national parks and strictly-protected forest reserves. However, it is likely that the measure will be focussed on providing incentives for improved protection of reserves currently under external pressure.
- Reforestation: The 'enhancement of forest carbon stocks' may result in the absorption of some elements of ARCDM into REDD. This will probably not

³ http://unfccc.int/files/meetings/cop_13/application/pdf/cp_redd.pdf

- cover plantation activities on non-forest land (afforestation) but will focus on plantations for forest restoration and enrichment.
- Recognition of pre-2012 REDD activities: Countries which are already implementing effective measures to avoid deforestation and degradation, or will begin implementing such measures before 2012 would have a perverse incentive to pause or delay these activities. To prevent this, the REDD decision indicates that these activities would be taken into account in calculation of national credits when implementation begins in 2012.

There are a number of outstanding concerns with REDD, from the perspective of forestry professionals and civil society groups, which emerged strongly on Forestry Day and were not adequately addressed in the final agreement.

National accounting: REDD will be a national level mechanism, not project-based. Non-annex 1 countries will submit national reports of their forest-based carbon stocks, and will receive CERs based on their success in meeting REDD targets. The income from the trade of these credits will be distributed at the whim of national governments. This has potentially negative implications for efforts to decentralise management of natural forest resources.

Local/indigenous forest use rights: Many civil society organisations perceive REDD to have negative implications for forest-dependent peoples in implementing countries. The centralised nature of the mechanism is one reason for this concern, but it is also rooted in the issues of unresolved land tenure and usufruct rights that are still all too common in forest lands throughout the developing world. The final REDD document quite deliberately refers to the '*needs*' of local communities, not their '*rights*'.

Civil society strongly requested the involvement of indigenous peoples in the further development of REDD, arguing that such people often know best how to conserve their forests. REDD benefits will mainly go to governments and not to forest-dependent peoples. Some NGOs were asked (mainly by other NGOs) to play a role in improving this situation, because parties to the climate negotiations (i.e. national governments) are very unlikely to do so (see also bio/agro fuels).

Baselines: The baseline for carbon accounting is a vital issue, and will surely be hotly debated over the coming two years. As noted above, it is possible that pre-2012 REDD activities will be credited, so the baseline date could be in the past, perhaps 1990 as with the current ARCDM mechanism. The baseline scenario for calculating avoided deforestation is presumably complete clearance of forest, but in the case of degradation or conservation this is a much more complex question.

REDD preparedness funding, the FCPF⁴

The World Bank launched the FCPF during the Bali conference. This caused controversy largely due to the outstanding issues with REDD noted above. The Chair of the United Nations Permanent Forum on Indigenous Issues (UNFPII) accused the World Bank of dishonesty in failing to consult with them during the preparation of the FCPF. Climate Action Network (CAN), a forum of over 200

⁴ http://carbonfinance.org/docs/FCPF_Booklet_English_Revised.pdf

civil society organisations worldwide, lobbied strongly for a delay in the launch until these issues had been resolved.

The World Bank has responded to these criticisms with a promise to release funding to host countries dependent on full, informed, transparent consultation with all concerned parties, including indigenous communities. However, it is unclear how they will enforce or monitor this requirement.

Several annex 1 countries have already contributed funds to FCPF. The facility currently has \$165 million and expects more. Over 30 non-annex 1 countries have already applied to the World Bank for access to the FCPF. The World Bank will select about 20 countries by mid-2008 to receive funding for a 'Readiness Mechanism' to improve skills, monitoring systems and infrastructure required for REDD and prepare a national REDD strategy. A smaller number of countries, which the Bank deems to have participated successfully in the Readiness Mechanism, will receive further FCPF money under a 'Carbon Finance Mechanism' to pilot incentive payment systems before 2012.

Further Guidance on the CDM⁵

Some significant changes to the implementation of the CDM were agreed in Bali, most obviously in the two fields of biogas and afforestation/reforestation (AR) CDM.

Biogas: The MOP3 agreed to reinstate the '**Switch from non-renewable biomass for thermal application by the user**' (SSC I.E) mechanism under the CDM. This was included under the initial Kyoto Protocol. However, the UNFCCC subsequently decided that this mechanism amounted to credits for avoided deforestation, because the baseline scenario for the projects was using fuelwood for cooking. Avoided deforestation is not allowed under the Kyoto Protocol, so SSC I.E was cancelled in 2004.

This conundrum has now been resolved by using kerosene stoves as the baseline scenario instead of fuelwood. However, this results in lower CERs per biogas plant than the old mechanism. The post-2012 agreement might provide a solution to this because avoided deforestation, under REDD, will be an approved mechanism, so fuelwood may once more be eligible as the baseline scenario.

Energy efficiency: The MOP3 also agreed to reinstate the '**Energy efficiency measures in thermal applications of non-renewable biomass**' (SSC II.G) methodology under the CDM. These technologies and measures include high efficiency cook stoves and ovens using non-renewable biomass.

ARCDM: The very poor uptake of ARCDM was frequently noted within MOP3 discussion. There are several reasons for this, one of which is the limit set on small-scale projects regarding their emission reduction outputs. This limit has now been doubled to **16,000 tCO₂ per project**. The change was particularly welcomed by African nations, who cited ARCDM as one of the measures with great potential for uptake in Africa, if only small-scale projects were permitted to generate more revenue.

⁵ http://unfccc.int/files/meetings/cop_13/application/pdf/cmp_guid_cdm.pdf

However, several problems remain which indicate that few new ARCDM projects will be initiated or approved during the commitment period of the Kyoto Protocol. The core problem is the different class of CER issued to forestry projects. ARCDM credits are considered temporary, because the carbon stocks they represent will inevitably be lost and must be replaced by new planting. These temporary CERs (**tCERs and ICERs**) fetch much lower prices than other CERs and entail higher risks for the buyer. They are not allowed within the ETS and many national countries won't even allow them to enter their registries. Only a few countries will use tCERs for their KP commitments.

The low interest in ARCDM was reflected in the fact that only two side events were held on the topic, and these were poorly attended. The general opinion is that some elements of ARCDM will be incorporated into REDD and that afforestation projects will concentrate on credits for the voluntary market (VERs), governed by one of a number of emerging quality control standards.

Terra Global Capital presented a list of reasons to stay away from ARCDM:

- Too difficult and time consuming
- Too costly
- Registration risk too high
- Additionality questionable with donor funded projects
- Land eligibility cannot be met or cannot be proven
- Limited demand for compliance credits
- Limited criteria for providing social and environmental co-benefits.

They advised interested parties to analyse the other possibilities for Afforestation and Reforestation projects:

- Voluntary Carbon Standard (good forestry standard)
- Community, climate and biodiversity alliance (CCBA)
- Gold Standard
- CarbonFix Standard (provides tools to project developers, but has not addressed additionality problems or permanence)

DEFRA (UK) has developed a **Guidebook on CDM**⁶, which summarises many of the key issues that were discussed at COP13.

Adaptation

The Stern report states that a combination of mitigation and adaptation at an early stage could prevent the world from extreme consequences and thus considerably higher adaptation costs later. Oxfam presented a paper entitled "Adapting to climate change: What's needed in poor countries, and who should pay", in which they classify adaptation measures using two dichotomies: soft/hard and micro/macro. For example:

- | | |
|-------------|-------------------------------|
| Hard macro: | Bridges, other infrastructure |
| Soft macro: | Cross-sectoral planning |
| Hard micro: | Changing crops |
| Soft micro: | Education, awareness raising |

⁶ http://perspectives.cc/home/groups/7/Publications/CDM_Guidebook_Perspectives_DEFRA_122007.pdfw

One of the significant outcomes bringing together both adaptation and finance was the decision to operationalise the **Adaptation Fund**⁷, which was set up to finance adaptation in developing countries and will include measures under all four of the above categories. The fund is financed through a levy on CDM projects undertaken in developing countries and is therefore not dependent on donors. The early stages of the Conference were marked by intensive lobbying by representatives from the Global Environment Facility (GEF) who were determined to secure a role in servicing the Fund. In the end, they secured an interim role in providing a secretariat function.

The UK and Netherlands, together with the World Bank, announced funding of up to £3 million (€4 million) for a new research study that will support developing countries to prepare for climate change. The two governments will jointly fund the study to help recipient countries understand the costs of adaptation and the steps necessary to prepare for the impacts of climate change. A local approach will be used, to reflect the fact that adaptation measures will be different in every region.

Bio/agrofuels

Agrofuels were not seen by many in Bali as a potential tool in climate change mitigation. The feeling of the forest sector on the topic was summed up by Rudy Rabbinge of Wageningen University in his opening address to the plenary session of Forestry Day:

"Expansion of biofuels in the developing world is dangerous. They are detrimental for livelihoods and ecosystems and are not helping to reduce GHG emissions."

A side event towards the end of the conference, organised by CIFOR and IUCN, which attracted considerable interest, used a World Café format to generate ideas for research into agrofuel/biofuels. It was generally agreed that small-scale household use of crops for subsistence fuel is appropriate in certain regions (and is traditionally practiced in Senegal, for example) but industrial plantations will inevitably result in negative externalities.

However, many countries have set goals for minimal biofuel use in transportation. The advantages seen are:

- Energy security (rising oil prices and political instability in producer countries)
- Demand for sustainable energy
- Incentive policies in production and trade (e.g. subsidies for US maize farmers)

The main arguments against biofuels include:

- Pollution (increased pesticide use in monocultures)
- Biodiversity loss
- Increased food prices (Corn, soy, sugar beet, etc)
- Negative consequences for indigenous peoples
- Increased unsustainable water consumption and consequent erosion and desertification

Impact on climate change is cited by both advocates and critics of the technology. However, a recent OECD report states that agrofuels may have an even greater

⁷ http://unfccc.int/files/meetings/cop_13/application/pdf/cmp_af.pdf

adverse impact on climate change than maintaining current levels of fossil fuel use. The topic remains highly controversial. In Bali, the Dutch Minister of Environment, Jacqueline Cramer, presented a research paper which outlined six indicators for sustainable use of biofuels:

- GHG balance
- Competition with food
- Biodiversity
- Environment
- Economic
- Social prosperity

Although bio/agrofuels will continue to feature in negotiations over the next two years, the current political and scientific environment indicate that they are unlikely to feature prominently in the Copenhagen Protocol.

Technology transfer⁸

Industrialised countries committed themselves, under the UNFCCC (Rio, 1992), to stimulate the transfer of climate-friendly and energy-efficient technologies to other countries. However, there has been very limited progress on this to date. A COP decision reinstated the Expert Group on Technology Transfer and asked them to develop recommendations for this topic. GEF was requested to elaborate a strategic programme to scale up the level of investment. However, annex 1 countries could not agree on firm commitments for technology transfer, as developing countries were advocating, and most key decisions were deferred.

Capacity building

As the conference neared its conclusion, the COP invited submissions on monitoring and evaluation of capacity building at the national level by 15th August 2008, for consideration at the 29th meeting of the Subsidiary Body for Implementation (SBI). Parties requested the Secretariat to prepare a technical paper on the subject and to hold a workshop before COP14 on performance indicators. They also reiterated the need for the GEF to continue providing financial and technical support, requesting information on these activities to be provided by the GEF "in a more systematic and structured manner." There was further acknowledgement of the need for enhanced activities by relevant UN, multilateral and bilateral organisations.

⁸ http://unfccc.int/files/meetings/cop_13/application/pdf/cp_tt_sbsta.pdf