

Chair's Summary Report

Workshop “Where development meets climate: development related mitigation options for a global climate change agreement”

24-25 September 2008, the Hague, The Netherlands

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• Key messages

- I Design future agreement so that it helps countries to achieve their development goals and the UNFCCC climate objectives.
- II Advanced developing countries commitments could take the form of a combination of long term development plans and short term sector policies and programmes, supported by a new international financial mechanism to support the transition to a low carbon economy.
- III Low carbon development plans based on sectoral approaches can deliver both development and climate benefits.
- IV A three stage financial system is proposed to support national implementation: (1) domestic finance for those options that have negative costs, supported by an efficiency fund that supports overcoming barriers for the implementation of negative cost options; (2) a zero carbon fund for costs of policies and programmes to make the transition to the low carbon economy, and (3) access to the carbon market for actions that go beyond the low carbon development plan.

I. Design future agreement so that it helps developing countries to achieve their development goals

The global climate mitigation challenge is to make the transition to a low carbon economy, while realizing core development objectives of countries. Not integrating climate will undermine development efforts and disproportionately hurt the poorest countries and poor people. While the historic responsibility for emissions lies primarily with the developed world, IPCC has shown that it becomes physically impossible for all reductions to be born by the industrialized countries if low stabilization levels of atmospheric greenhouse concentrations are to be realized. Significant investments will be required to realize a transition to a low carbon economy and actions will need to come from both developed and developing countries. This is reflected in the Bali Action Plan that states that it is necessary to have: “*Nationally appropriate mitigation actions by developing country Parties in the context of sustainable development, supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner*”.

Global agreements using Kyoto Protocol styled cap and trade market mechanisms are likely to be limited to developed countries for the time being. Hence the need to find alternative approaches to engage (advanced) developing countries and to find stronger financial support by developed countries to make this happen. There are many demonstrated positive examples in developing countries of integrated approaches with strong development and climate benefits. These actions have been taken principally for reasons other than climate change and in some cases at real net economic costs. Opportunities thus exist to make significant additional emission reductions to help slow the rapid increase in greenhouse emissions projected in these countries. A ‘Copenhagen agreement’ could build on this reality.

2. How could advanced developing country commitments look like?

If developed countries take up serious commitments in a 'Copenhagen agreement' to realize significant cuts in emissions to allow reaching low stabilization levels, also the contribution of advanced developing countries to a global effort is crucial. For controlling climate change to about 2 degrees warming compared to pre-industrial times (and limiting damages from climate change to avoid the most dangerous impacts) developed country mitigation commitments would have to be in the range of 25-40% reduction by 2020 compared to 1990 levels. These countries would show their long-term commitment by producing long-term low carbon development plans. Developing countries then would have to keep their emissions substantially (about 15-30%) below baseline. Advanced developing countries would have to deliver most of this. Developed countries furthermore need to commit substantial contributions to international funding mechanisms for adaptation and mitigation. This is in particular for investments by developing countries to deliver their reductions.

The proposal for advanced developing countries is then to commit to:

1. a long-term low carbon development plan, as well as
2. short-term sectoral implementation plans, which can take the form of sustainable development policies and programmes to make the transition to a low carbon development path (this could be based on best practices or best available technologies, see further elaboration in section 3).

Development and implementation of these plans would be supported by international funding. Developing country commitments would in this proposal be voluntary. Funding of their effort would be done through a combination of self-financing of the options with negative costs, plus a new international fund that would help advanced developing countries invest in sectoral policies and programmes to actually make the transition to low carbon economies (see further elaboration in section 4).

The advantages of this proposal are:

- The possible synergy with social and economic development goals, as it focuses on development plans for key sectors in the economy.
- A relatively limited number of sectors and companies need to be included in the system, by focusing on best known and large emitting sectors first.
- It addresses competitiveness concerns of business in industrialized countries if a substantial share of the sector worldwide would be included in these national plans.
- A sectoral focus of national policies and programmes towards a low carbon economy will promote transfer of low carbon technologies, following increased investments within the sector
- A larger and more efficient flow of finance would become available for advanced developing countries that could replace CDM funding that has high transaction cost. CDM would then be available for other developing countries that are not participating in the zero carbon fund.

3. Integrating development and climate through sectoral approaches

Countries would develop long term '*low carbon development plans*', as part of existing long term planning in the country. Such a plan should lay out a strategy to domestically achieve a low carbon economy over time, say by 2050, consistent with their individual sustainable development path and a globally shared vision about stabilizing greenhouse gas concentrations in the atmosphere at low levels. Implementation would be based on '*sector focused short-term* policies and programmes that lead to critical transitions towards a low carbon economy. In this proposal the policies and programmes are understood to be taken on a voluntary basis.

The sector focus has distinct advantages:

- It realizes a large enough scale compared to CDM to have a real impact. Is less cumbersome than project-by-project approaches and helps scaling-up, it also fits well with policy processes in the countries
- It is more focused and less demanding than economy wide approaches.
- It allows for a targeted approach that focuses on parts of the economy with the largest emissions and hence will improve the efficiency of interventions.
- Sector approaches also allow engaging business and other stakeholders in the policy process in a meaningful manner.
- It furthermore allows developing countries to prioritize actions in those sectors where data about emissions are available.
- Promotes newer (newest?) and (most?) efficient (lowest greenhouse gas emissions) technologies and actions.
- Enables accessibility and affordability of more efficient technologies for developing countries; allows specific support measures to be taken to enhance the diffusion of technologies in specific sectors
- May help tailor and channel financial assistance and investment where key breakthroughs have to be made (more difficult to do in economy wide efforts).
- It addresses issues of competitiveness (if major competitors are included).

Possible disadvantages of this sector focused approach include:

- May advantage richer countries with capacity to meet standards, tilting the balance away from low income (and likely less efficient) manufacturing.
- Scaling to global solution requires multiple actions (for multiple countries, sectors, and technologies) to become environmentally effective and avoid carbon leakage.
- Complex determination of sector policies and programmes and appropriate consideration of country specific circumstances.
- Sectoral implementation policies and programmes will not be available by the time of an international agreement and thus complicates the comparison of developed and developing countries efforts.
- High government capacity needed to implement national measures

Sectoral policies and programmes can be designed in various forms. The following three options are all useful in operationalizing sector action: sustainable development policies and measures to be implemented in the sector (SD-PAMS), best practices and best available technology (BAT/BP) or as sectoral targets to be reached by a certain date.

In a sustainable development policy based-approach (SD-PAMs) countries implement certain policies in a sector that contribute to sustainable development of the country. As barriers to good

Table 1 Comparison of different approaches (Höhne et al., 2008)

	Sectoral sustainable development policies and measures	Best available technology and best practice commitments	Negotiated binding sectoral targets
Environmental	Impact on emissions depends on stringency of policies, hard to predict Possibly not covering all emission reduction options, since some may not have a sustainable development benefit	Impact potentially high but depends on stringency Special consideration needs to be taken to reduce demand for products and to achieve movement to low carbon technologies (e.g. renewables)	Impact potentially high but depends on stringency If intensity based, special consideration needs to be taken to reduce demand for products
Economic	Sources and distribution of financing need to be defined Emission trading cannot be applied, but long-term perspective is taken	Sources and distribution of financing need to be defined Emission trading cannot be applied	Carbon market is a major funding source Globally cost effective through emission trading if broad participation
Distribution and equity	Builds on host country development objectives and characteristics	Builds on the concept of technology upgrading, energy security, etc. Accommodation of national circumstance by adjustments for availability of natural resources and differentiated timelines for implementation	Bottom up development and negotiation leads to adequate consideration of national circumstances May be seen as a limiting economic growth
Technical and institutional	Only the <i>implementation</i> of the policies has to be monitored, not their effect Difficult to determine the stringency of the effort and level of financial support needed	Agreement on the approach possible in December 2009 Technical specification of the BAT and BP levels is very difficult, taking place after 2009 Determination of the national contribution and the financing needs difficult	Exact amount of emission reductions from sectoral targets will not be available in December 2009, but will only emerge after subsequent detailed negotiations High government capacity needed to implement national measures to reach the target

Yellow indicates a medium evaluation
Green indicates a positive evaluation

performance exist, focus has to be on best policy practices (drawing also from experience in other places).

In a technology standards approach countries commit to achieve in selected sectors certain predefined advanced technology standards, in the form of performance standards (not prescribing specific technologies). This could be best available technology for new installations and best practices for existing plants.

With (binding or non-binding) sectoral targets countries agree to emission reductions in a sector (in absolute terms or as emissions per unit of product), with flexibility on how to achieve these targets domestically. The baseline is country specific and the target is based on, or informed by international benchmarks.

Table 1 provides a summarized comparison of the three approaches. Each approach has its advantages and disadvantages. While negotiating binding sectoral targets score well on environmental effectiveness and economic efficiency, they are complex to negotiate. Best available technology and best practice commitments are less effective to realize decarbonisation in the energy system (e.g. a shift to renewables) and defining the BAT and BP levels can be difficult, but they build on the concept of technology upgrading and support. Sectoral sustainable devel-

opment policies and measures may not target all possible mitigation options, but would be easier to implement.

In choosing between these different options for sectoral approaches it is important to take the following issues into account:

- Data requirements: especially heavy for BAT/BP and sectoral targets, but efforts are underway in sectors at national and international level.
- Monitoring, reporting and verification: needs to be adjusted to the type of actions taken; national communication can be used to do the reporting, but this will require adjustment of the reporting requirements and the review process.
- International oversight and review: through technology expert panels (like the Technology and Economic Assessment Panel and its Technical Options Committees under the Montreal Protocol)
- Competition issues: for sectors that are operating globally business needs a level playing field. This can be enhanced through benchmarking best policy practices or through the use of policy coordination (such as in article 2 of the Kyoto Protocol).

4. How could financing arrangements look like?

The proposal is to create a three stage financing system for developing countries committing to the low carbon development path approach. The financing system would include:

- *Domestic finance, supported by an international Efficiency fund*: Domestic financing would be used for putting together a low- carbon development plan and for those policies and programmes that have negative costs, either directly or because of co-benefits. International technical and financial support for capacity building and overcoming barriers will come from the *Efficiency fund*.
- *Zero carbon fund*: international funding for positive costs of implementing policies and programmes to make the transition to a low carbon economy.
- *Carbon market*: for actions that go beyond the policies and programmes to get to a low-carbon economy.

The way the funding system could work is as follows:

- Developing countries as part of domestic efforts will produce low-carbon development plans and can get financial and technical support for this if needed from existing capacity building funds.
- Developing countries can get support for overcoming barriers and building capacity on domestic actions to realize negative cost options from the Efficiency fund.
- Developing countries can submit proposals to the zero carbon fund for co- funding specific policies and programmes on the basis of a tendering system, i.e. the best proposals with the biggest impact will get the money; co-funding from other sources would enhance the chance of being funded from the zero carbon fund. International expert committees will assess proposals.
- Money for these funds should come from governments, preferably on the basis of the proceeds of auctioning of emission allowances. This can be domestic auctioning and transferring part of the proceeds to the international funds or direct international auctioning. The fund provides financing that is complementary to other financing by multilateral institutions, bi-lateral funds, ODA, Foreign Direct Investments and philanthropic foundations.

The *Efficiency fund* is meant for national action plans for zero or negative cost mitigation implementation. Its goal is to reduce the barriers that hinder the implementation of no-regret sustainable development policies and measures. The barriers to be overcome with this fund are for example administrative costs, technology availability in common pool (royalty rates), financing problems, etc. The use of the funding is subject to monitoring, reporting and verification.

The *Zero carbon fund* is meant for realizing the sector based policies and programmes in national low carbon development plans. This fund therefore focuses on the policies to trigger and implementation of technologies that have to play a key role in the transition to a low carbon economy. This could for example include carbon-free transport systems, carbon capture and storage, electrification programmes based on renewables. An option is to allow both public and private actors to apply (preferably in combination to ensure consistency with national low carbon development plans). Monitoring, reporting and verification as well as enforcement will be part of the contracting.

In this proposal emission reductions that result from implementing the low carbon policies and programmes would not be credited, i.e. no emissions allowances are obtained or sold on the carbon market. The reason is that the national policies and programmes constitute the commitment of the respective developing countries to contribute to the global effort. Selling credits would mean that the emissions will be increased in developed countries, nullifying the contribution.

The zero carbon fund would be made more attractive for advanced developing countries than the CDM, because of its scale and broad alignment with national development priorities. Then these countries would no longer be eligible for CDM. An additional advantage is that the CDM would be reserved for the less developed countries that currently hardly benefit from the CDM.

The *carbon market* will provide a next stage in funding. However there should be an incentive for countries to move beyond the low-carbon policies and programmes. This could for instance be done by providing countries the option to take up sectoral targets that are leading to lower emissions than what the national plan foresees. For the additional emission reductions credits would be obtained.

5. Issues for further consideration

The proposal elaborated above is just an outline of a possible architecture that would meet the concerns of developed and developing countries in moving towards a drastic reduction of the risks of climate change. There are many aspects still to be elaborated and discussed. The devil is in the detail. In further considering this proposal, the following issues in particular would require attention:

- Acceptability of the low carbon development plan with sectoral transition programmes for advanced developing countries;
- The provision of adequate additional financial resources for the Efficiency and the Zero Carbon Fund Governance, organization and disbursement of funding;
- The relation with the carbon market

Colophon

On 24 and September 2008, about 40 international negotiators, representatives from the power-, steel- and cement-sector in China, India, South Africa and Mexico, NGOs and researchers met. The objective of the workshop was to elaborate specific proposals to bring about sector specific actions in the advanced developing countries. Results of the meeting are put forward to the international negotiations in the United Nations Framework Convention on Climate Change (UNFCCC). This workshop was organized by the Netherlands Environmental Assessment Agency (PBL).

All presentations and the input-paper for the workshop 'Sector approach and Development' by Höhne N., E. Worrell, C. Ellerman, M. Vieweg and M. Hageman (ECOFYS) can be downloaded from:

<http://www.pbl.nl/en/publications/international-workshop-where-development-meets-climate>

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