



Climate Action Network-International submission to the AWG-LCA¹ views on enhancing the cost- effectiveness of, and promoting, mitigation actions

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Climate Action Network – International is a coalition of 550 environmental and development non-governmental organizations worldwide committed to limiting human-induced climate change to ecologically sustainable levels.

In this submission the Climate Action Network International looks at a non-exhaustive list of policies and measures which are aimed at directly or indirectly reducing or mitigating greenhouse gas emissions. For each of the measures a short analysis will be provided together with an assessment of their cost-effectiveness. The types of measures discussed are placed under the categories financial instruments or regulatory approaches, both in a broad sense.

Besides the specific analysis of policies and measures mentioned below, the following general statements can be made about greenhouse gas abatement measures and their cost-effectiveness.

First of all, it is clear from the experience with implementing greenhouse gas policies that actual cross-sectoral mitigation cannot be achieved by a single comprehensive instrument. For instance, a tax on carbon on its own is less effective than one which is combined with measures to recycle the tax revenues into the green economy. Different sectors and parts of sectors will require different approaches. An example is that a cap and trade system seems (from an administrative perspective) easier to apply to a relatively small list of large point sources such as the ones in the power sector or the manufacturing industry. The effectiveness of mitigation can also be enhanced by the combination of policy instruments.

It is important to differentiate between short and long term cost-effectiveness. Some mitigation actions and their ambition level may seem cost-effective in the short term but may actually be more costly in the long term. An example could be the over-dependence of Annex I governments on the use of off-sets under the CDM. While it is often perceived to be more cost-effective to use off-sets to reach a short term target, this behaviour can lead to a high carbon lock-in with higher costs to follow when deeper reductions are required later on. The most extreme example is the risk of high carbon stranded assets through postponing domestic emission reductions.

1. Financial instruments

1.1. Introduction

“Financial instruments” place a financial value or cost on emitting greenhouse gas emissions. In short, tools that put a price on carbon. On the other hand, removing the support for polluting fuels can also be seen as a financial instrument in greenhouse gas abatement.

1.2. Elimination of fossil fuel subsidies

One of the most obvious policies and measures to recommend is the identification and elimination of direct and indirect public financial support for fossil fuel extraction, modification, transport and consumption. The elimination of such subsidies will have a direct price effect on the production and consumption of these fuels.

1 Outcome of the work of the Ad Hoc Working Group on long-term Cooperative, cp16: action under the Convention (AWG-LCA) Information from Parties and accredited observer organizations on the evaluation of various approaches in enhancing the cost-effectiveness of, and promoting, mitigation actions, including activities implemented jointly under Article 4, paragraph 2 (a), of the Convention and any other relevant activities, for synthesis by the secretariat. (See FCCC/AWGLCA/2010/L.7, paragraph 87)

This will lead to a lower (more efficient) demand and will make alternative renewable production more economically viable and attractive.

1.3. Fiscal measures

An example of fiscal greenhouse gas abatement measures is a carbon or CO₂ tax. Such a tax will make polluting sources, services and fuels less attractive and lower the consumption of them. Combining this instrument with complementary measures can enhance its effectiveness, maximise co-benefits and minimise potential public resistance. An example of this is to recycle the tax revenues generated by the carbon tax via support schemes with the goal of eliminating fuel poverty, or to use the revenue generated to reduce taxes on labour. Public spending of those revenues, obviously, should not be used for measures that might increase the use of fossil fuels.

The effectiveness of a carbon tax will be magnified when revenues generated are directed toward support of energy savings measures and renewable energy production.

While fiscal measures are very effective in internalising a carbon price, they do not give an upfront guarantee that the actual mitigation or reductions targets will be achieved. The level of taxation has to be updated systemically based on the actual impact on greenhouse gas emissions.

1.4. Renewable energy support schemes

Countries like Germany and China have been very successful in achieving a significant share of renewable energy production via a range of renewable energy support schemes. The support systems applied across the world are different and vary from subsidies, lowering of taxes and green-certificate systems (e.g. renewable energy trading) to feed-in tariffs for renewable electricity. While each of the support systems has its pros and cons, it is clear that a specific, dedicated and organised support for renewable energy leads to direct and significant results.

When considering the cost-effectiveness of these systems it is worth mentioning the tremendous co-benefits that come with them:

- lower dependence on (imported) fossil fuels;
- improved health of the local population through the reduction of NO_x, SO_x and particulates emissions;
- increase of local investments and job creation and, last but not least
- avoided costs for reducing CO₂.

1.5. Market Based instruments

Market based instruments for greenhouse gas abatement have been present since the inception of the Kyoto Protocol. In fact market based instruments such as emissions trading and JI and CDM are a core element of the Kyoto Protocol. In this part of the submission we will highlight the most prominent active carbon market instruments: Kyoto Protocol emissions trading, the EU Emissions Trading System and the Clean Development Mechanism. We mention potential new (UNFCCC) market based mechanisms shortly but refer for our broader views on them to the CAN-I submission on them.²

1.5.1. CAP and TRADE systems: Kyoto Protocol and the EU ETS

A cap and trade system places a cap on the actual amount of emissions that are allowed with a country, region or sector. The mechanics of supply and demand then result in a carbon price. Units, representing a tonne of CO₂-eq emissions, are the units traded in existing systems (e.g. Assigned Amount Units or EU allowances). The theory behind, cap and trade systems is that they are cost-efficient by ensuring that the reductions happen where they are the cheapest (leaving the alternative of purchase of allowances in areas where the reductions are more costly).

As illustrated below, lessons from the actual implementation of the Kyoto Protocol and the EU emissions trading system show that achieving maximum effectiveness of these systems can, in practice, be undermined. Both the Kyoto Protocol and the EU ETS in their first commitment periods (respective 2008-2012 and 2005-2007) had the cap (i.e. the maximum amount of emissions) set at an unambitious level, leaving room for hot air.

² CAN-International submission views on new market based mechanisms, 21 February 2011

European governments allocated allowances too generously towards their industry and as a consequence the carbon price in Europe in 2007 collapsed to almost 0 EUR/tonne. In the next phase 2008-2012 a second collapse of the carbon price (due to the economic crisis) occurred but was mitigated only partially by the bankability of allowances to a later period. However, the current EU -20% 2002 target in combination with the allowance hangover from the period 2008-2012 (and the generous use of international off-sets purchased by the CDM) is likely to result in a relative low carbon price until 2020. Thus the EU ETS is unlikely to drive more advanced reduction measures within the EU. The current lack of scarcity in the EU ETS is, therefore the damocles sword hanging over the long term effectiveness of the system. Having said this, there is evidence that in the electricity sector emission reductions have occurred under the EU ETS. The carbon price under the EU ETS has been internalised in the power price and influences the so called merit order of power production in Europe. Depending on the relative gas, coal and EU ETS allowance prices, higher polluting coal based power production sites are switched in favour of lower emitting gas plants. There is also an early indication that the introduction of 100% auctioning of the EU ETS allowances for the power sector as from 2013 is influencing the investment decisions of power companies in favour of lower carbon alternatives. This behaviour is most likely guided by the fear of future, stranded, high carbon assets.

A major advantage related to auctioning of emissions trading allowances (instead of administratively allocating allowances) is the ability to recycle the revenues into the domestic green economy (as mentioned above under fiscal measures) and international climate financing. The current EU ETS encourages European Member States to do so. With EU ETS auctioning revenues of around 15-30Bn EUR each year as from 2013 this will become a substantial structural green growth support system.

The Kyoto emissions trading system faces similar problems, but on a much bigger scale. In the last years it has become clear that the huge surplus AAUs (or over allocation of permits) from the first commitment period threaten the environmental integrity of enhanced climate action in the second commitment period of the Kyoto protocol, if they are carried over to the second commitment period. CAN-international supports all parties which are working on a fair and environmentally sound solution to this problem. Some of the options on the table at COP16, are clearly going in that direction.³

1.5.2. The Clean Development Mechanism (CDM)

The essential question which feeds the development and implementation of the CDM is whether the projects developed are delivering real emission reductions. CAN-I notes that the current additionality rules under the CDM methodologies are by no means a guarantee that credits emerging from this system reflect real emissions reductions (compared to a reference). The most notable example are the credits resulting from HFC23 destruction. While those credits have been claimed to be the most additionality proof, recent reports and alternative methodologies show a clear incentive for an increase and not a decrease of emissions. This clear and present environmental danger becomes visible when we see that millions of those credits were pumped into Europe's ETS. It might well be possible that the marginal emission reductions by Europe's EU ETS are wiped out by non-additional CDM credits. Fortunately, intervention by EU governments will prevent the use of those credits from 2013 onwards. It is of great concern that an initiative preventing the contamination of the carbon market with those credits was not taken at an earlier stage at UNFCCC level and is still outstanding. CAN-I is dismayed by the continued crediting of HFC23 projects while the currently used methodology has been shown to be dysfunctional.

In general, the basic set-up of the CDM, project based and using a (future) crediting baseline, will never fulfil a 100% secure additionality test which secures an actual global reduction in emissions. There are ways to partially address this through the introduction of discount factors when crediting specific projects. On the other hand, types of projects such as HFC23 or N2O destruction, due to the high risk of gaming, need to be placed outside of the CDM and replaced by supported National Appropriate Mitigation Actions. A similar approach needs to be taken for other types of projects where the risk of gaming is high.

³ Such as the option to only allow the first Kyoto Protocol commitment period surplus AAUs to be used for domestic compliance in the second commitment period and only in case the emissions of a party in the second commitment period are higher than the target set for that period.

1.6.3. New market based mechanisms

For a more elaborate position on new market based mechanisms we refer to the CAN-I submission on this specific topic.

The most often mentioned new market based instruments draw upon an expansion of the CDM towards a sectoral crediting or trading mechanism.

The main recommendation from CAN is that before implementing new market based systems a thorough assessment of the existing market based instruments is required. As mentioned above, all carbon market based instruments active in the world (without exception!) have faced or are facing important structural problems with regard to their (environmental) effectiveness. It is obvious for CAN that an expansion of the CDM to new mechanisms without addressing and solving issues such as additionality, avoidance of double counting of actions and credits, realisation of real global emission reductions is out of the question. More than 12 years after the realisation of the Kyoto Protocol, parties are still struggling with the implementation of the incomplete, in-transparent and weak framework which established the CDM in 1997.

Finally and most importantly (and this applies to all off-setting mechanisms), the debate on new and more extensive market based mechanism, given current mitigation commitments for developed countries, seems superfluous. Recalling the current alarmingly low level of ambition with regards to emission reductions commitments by parties, CAN is concerned that the use of international market-based mechanisms could further weaken the impact of these commitments on the implementation of domestic emission reduction efforts. In particular, CAN believes that without raising the level of ambition to at least 40% emission reduction for Annex I parties, with a majority of this reduction implemented domestically, there is no room – or indeed need – for the use of offsets by Annex I parties.

2. Regulatory approaches

Next to the financial instruments mentioned above, an important and effective list of policy tools resides under what we call “regulatory approaches”. They have in common that mitigation activities are achieved through direct binding and enforceable legislation and not through the setting of a price or value on emitting greenhouse gas emissions.

2.1. Binding Targets

While being almost too evident to mention, “binding greenhouse gas reduction targets” are an important policy to reduce greenhouse gas emissions. Of course, the achievement of such binding targets (at national, regional or sectoral level) depends on the quality and stringency of the monitoring and enforcement of the actual implementation.

Very similar as the above are the binding targets for renewable energy production or for energy savings. It is clear that those measures have a direct impact on the level of greenhouse gases emitted.

Of course, binding targets need to be combined with other policies and measures (such as the ones mentioned before and those following below) to facilitate their implementation and achievement.

2.2 The environmental permit (Best Available Technologies/Emission Performance Standards)

For large polluting point sources the demand, through the environmental permit, that best practices are applied at a site are very common to avoid emissions of most pollutants (to air, water and soil). The US Environmental Protection Agency is now implementing such provision for big industrial point sources of greenhouse gas emissions. On top of the obligation to annually report greenhouse gas emissions, best practices with regard to greenhouse gas emissions abatement will have to be applied.

A stronger version of such approach is the introduction of emission performance standards. These require that all new build installations or installations of a certain age perform in a way that the amount of greenhouse gas emissions per unit of product produced (e.g. electricity, cement, steel) fall below a legally binding standard. This

legislative approach tends to be cost-effective on the medium and longer term because it can prevent the installation of high carbon production sites and hence a high carbon lock-in (which comes with higher abatement costs or even stranded assets over time when targets become more stringent). The UK government is exploring this option right now as a complementary measure to the EU ETS.

2.3. Product standards

A very effective approach, when applied in a correct form, is product standards. These standards oblige producers of goods such as electronics to only make products that meet a certain energy standard. Because this approach works up-stream (at the producer and not the consumer level) it can be very effective.

2.4. Road Transport

Similar to the above product standards, CO2 efficiency standards for vehicles are an effective tool in reducing greenhouse gas emissions. Significant contributions to meet the EU 2020 reduction targets will be achieved through the introduction of CO2 efficiency standards for cars and vans. The quick response of car manufacturers to such standards to produce more efficient cars in Europe shows there is a vast untapped margin of improvement on top of the current standards.

2.5. Buildings

Similar to the above, energy efficiency building standards for new, refurbished and existing buildings tap a vast potential of cheap emission reductions. In combination with financial support schemes they are among the most promising and cost-effective tools to mitigate greenhouse gas emissions.

3. Mainstreaming climate and energy policies

The above list of policies and measure is non-exhaustive, and other significant policies and measures, including best practices, have not been mentioned.

Climate and energy policies are cross-cutting through the whole economy. As shown above with the financial support for fossil fuels, it is possible that governments apply both climate policies and on the other hand activities that go against such policies. This is a striking example of cost-ineffective policies and measures.

Climate policies need to be mainstreamed and to become part of other areas of governmental responsibilities.

4. Recommendations

Based on the non-exhaustive assessments mentioned above, the CAN-I recommends the following points for the evaluation of various approaches in enhancing the cost-effectiveness of, and promoting, mitigation actions:

- Cost-effective cross-sectoral mitigation cannot be achieved by a single policy instrument. Different sectors and parts of sectors will require different approaches.
- The effectiveness of mitigation can be enhanced by the combination of instruments towards a single sector.
- It is important to differentiate between short and long term cost-effectiveness. Low levels of ambition and mitigation actions may seem cost-effective on the short term but could well be more costly in the long term. An important example here could be the over-dependence of Annex I governments on the use of off-sets under the CDM. While it is often perceived to be more cost-effective to use depend on off-sets for reaching a short term target, this behaviour can lead to a high carbon lock-in with higher costs to follow when deeper reductions are required later on.
- The evaluation of various approaches also needs to be firmly based on examples of implemented and effective policies and measures and not the virtual cost-effective benefits of non-existent instruments.
- For (new) Market Based Instruments this means a solid and complete assessment of the actual (cost-)effectiveness the AAU trade and the CDM under the Kyoto Protocol and the implementation of Europe's greenhouse gas Emissions Trading System.

- Next to the analysis of the effectiveness of non-market based policies an additional analysis is required to identify thresholds for the full and effective implementation of these policies. For instance, what type of non-market based instruments are eligible as supported NAMAs and what type of support (financially, capacity building, technology transfer) would be necessary to achieve an effective implementation. An example could be the analysis to move part of the projects now under the CDM towards supported NAMAs (e.g. HFC23, N₂O destruction).
- As part of their production of zero carbon development strategies or plans all developed countries should be required to analyse and report on their suite of policies and measures that support emissions reductions, and those that on the other hand provide incentives to increase emissions reductions (such as fossil fuel subsidies).