

# Seen from the South: A Review of Norwegian climate policy



2008

CLIMATE SEEN FROM SOUTH

## Klima sett fra sør

Klima sett fra sør er en informasjonskampanje om konsekvensene av klimaendringene i fattige land i sør. Klima sett fra sør er finansiert av Norad.



## Seen from the South:

# A Review of Norwegian climate policy

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## 1. Introduction: Norwegian climate policy in a global perspective

The aim of this report is to help us see the Norwegian climate policy in a global perspective. The rich, industrialised countries historically are responsible for the major share of the green house gas emissions causing climate change, but today's poor countries will face the most serious impacts. The unjust nature of climate change must be reflected and compensated for in international climate change agreements and in the policies of rich countries. How is this reflected in Norwegian climate policy?

Three commentators, from Nepal, Nigeria and Brazil, have analysed the Norwegian climate policy based on official documents and emission statistics. Their perspectives and conclusions are formed by the very different living conditions and development challenges facing the majority populations in their respective countries, compared to the situation in Norway.

The main questions they were asked to comment on where: To what extent does the Norwegian climate policy reflect the recommendations of the International Panel on Climate Change (IPCC) of 50-85% reduction in the global emissions and the principles of the UN Climate Convention? Is the Norwegian climate policy based on climate justice between north and south? (see more details of the terms of reference in annex). The contributors have also been asked to formulate a few questions for Norwegian policy-makers (see page 8).

Seen from the point of view of our commentators, Norway stands out as a country realising the seriousness of the climate change problem and apparently is ready to do something to mitigate it. But they all ask for far stronger measures to limit Norway's emissions from within the country borders, based on a global climate justice perspective.

Norwegian emissions per capita are 12 times that of Nigeria, 87 times that of Nepal and 3-4 times that of Brazil. Global climate justice implies that the Norwegian emissions must be cut drastically, according to the review. While the commentators supports Norway's policy of financing climate projects in the South, they underscores that this must not compensate for – or "offset" - emission reductions at home. They also emphasise Norway's opportunity and obligation to lead the way towards a post-carbon society. If a wealthy country like Norway is not willing or able to change from a carbon-dependent development path, how can one expect any other country to do it, ask one commentator.

Norway's role as an oil exporter and the heavy emphasis on carbon trading in Norwegian climate policy, are two critical aspects in the reviews. Also Norway's commitment to finance emission reductions from deforestation in the tropics is an important issue, and the commentators highlight the necessity to respect the rights and needs of local communities in any forest carbon efforts. They also warn against using investments in tropical forest in to compensate for the lack of emission reductions in the petroleum, transport and industry sectors in Norway.

The report is published as part of the campaign "**Climate change as seen from the south**", jointly organised by Rainforest Foundation Norway, Norwegian Society for Conservation of Nature (Friends of the Earth Norway), Future in our hands, WWF-Norway, The Development fund/Spire and the children's organisation "Miljøagentene". The information campaign aims to highlight perspectives from the south in the

Norwegian debate on climate change. The campaign is financed by the Norwegian aid agency Norad. Within the campaign it is the organisations Rainforest Foundation, Future in Our Hands and Norwegian Society for Conservation of Nature/Friends of the Earth Norway that are responsible for this review.

**The contributors:**



**Nnimmo Bassey**, Executive Director of Environmental Rights Action/Friends of the Earth Nigeria. He was recently elected chairperson of Friends of the Earth International (FoEI), the largest grassroots environmental movement with members and associates from 77 countries of the world. In 1998 he won the Sophie Prize.

**Sushil Mainali**  
Journalists  
in Oslo as a



Nepali journalist and member of Nepal Forum of Environmental (NEFEJ). He has also worked for one year with Framtiden i våre hender video journalist, under the FK Norway (Fredskorpset) program.



**Natalie Unterstell**, Instituto Socio-ambiental, Brazil. She has lived in Norway from November 2007 – November 2008, as part of an exchange program between ISA, Noragric and partly Rainforest Foundation Norway, under the FK Norway (Fredskorpset) program.

## 2. Sammendrag: Norsk klimapolitikk sett fra Nigeria, Nepal og Brasil

### Nigeria: En gjennomgang av norsk klimapolitikk

*Blant de industrialiserte land i verden framstår Norge som ett av de land som virkelig prøver å gjøre noe med den globale klimakrisen. Selv om vi applauderer innsatsen som gjøres, finner vi grunn til bekymring, fordi det ser ut som om klimapolitikken for en stor del er basert på tiltak utenfor Norge.*

*Klimaendringer er et spørsmål om menneskerettigheter. Ingen bestrider det faktum at det er urettferdig om industrialiserte land kan fortsette med sine rekordutslipp av CO<sub>2</sub>, samtidig som de foreslår at tiltak i mindre industrialiserte land i Sør skal kompensere for mangel på handling hjemme. Rettferdigheten krever at land i Nord gjør solide tiltak hjemme for å stoppe sine utslipp, og med dette viser seriositet i å takle de virkelige utslag av klimakrisen som truer overlevelsen for mange nasjoner og land.*

*En analyse av norsk klimapolitikk viser at tiltakene for en stor del er basert på kvotehandel og investering i skogprosjekter i Sør. Vi vil understreke behovet for at utviklede land tar ansvar for å utvikle lavkarbonsamfunn. Om utviklede land reduserer sine utslipp dramatisk, så vil det være det beste incentivet for at resten av verden skal følge etter.*

*Støtte til klimatiltak i utviklingsland må komme i tillegg til utviklingsbistand. De rike industrialiserte landene skylder det som en forpliktelse, om ikke gjeld, til fattige deler av verden som har bidratt med en stor del av de ressursene som er brukt i velstandsutviklingen og til steder som er kastet ut i situasjoner der tilpasning nå presenteres som den eneste livlinen.*

*Karbonhandel og programmer bygget rundt det er ikke løsningen for klimaendringer. Det må gjøres virkelige utslippsreduksjoner på hjemmebane. Tiltak for å bidra til reduksjon i utslipp i andre land må komme i tillegg til dette, fra globale borgere som har bidratt til veksten av forurensende industrier i verden.*

*Tiltak i Sør bør inkludere gjeldsletting, investering i tilpasset energi og energieffektivisering, samt i sikker, ren og lokalsamfunnsbasert fornybar energi. Norge kan også fremme rettighetsbasert ressursbevaring som hjelper til å styrke lokale landrettigheter og fremmer folks kontroll over deres ressurser.*

*Som stor eksportør av olje, og fordi det er potensial for økt utvinning, har Norge en stor historisk gjeld når det gjelder karbonutslipp.*

Nnimmo Bassey, Nigeria

### **Nepal: En gjennomgang av norsk klimapolitikk.**

*Nepals CO2-utslipp har økt med 387 prosent siden 1990. Likevel slipper en gjennomsnittsnordmann ut 87 ganger mer CO2 enn en nepaleser. Dette er ikke klimarettferdighet. Norge bør ta klimautfordringen mer alvorlig og begynne å redusere utslippene hjemme, blant annet ved å stoppe å pumpe opp olje. Nordmenn må dessuten "redusere på utslippene sine ved å gå fra en luksuriøs til en komfortabel livsstil".*

*Norge legger for stor vekt på CDM som løsning. Det er uansvarlig og er i praksis å overføre penger fra gamle storforurensere til nye storforurensere. Miljøkriminalitet belønnes. For et land som Nepal, som setter et lite klimaspør og som dermed ikke har noe fossil energi å konvertere til fornybar energi, er det veldig vanskelig å utvikle CDM-prosjekter. Men der det fins muligheter er det viktig at Norge bidrar med tilrettelegging og kunnskapsoverføring om hvordan man utvikler et CDM-prosjekt. Nepal trenger likevel først og fremst kompensasjon fra gamle og nye storforurensere. Nepaleserne er ikke ansvarlige for klimaendringene, men står likevel overfor konsekvenser av klimaendringene som er blant de mest dramatiske i verden.*

*Fattige områder i verden vil bli truffet hardt av klimaendringene. Det er derfor en nøkkelfaktor at disse områdene får hjelp til å omstille seg til å møte klimaendringene. Dette krever store pengeoverføringer, ikke småbeløp som overføres nå. Midler til tilpasning bør være en naturlig forlengelse av utviklings samarbeid. Norge må hjelpe Nepal med å kartlegge konsekvenser av klimaendringene. Det er også viktig at ikke bistanden det ikke bare fokuserer på utslippsreduksjoner og tilpasning til klimaendringene, men at fokuset på tradisjonelle bistandstemaer som utdanning, helse og bygging av infrastruktur opprettholdes.*

*Utviklede land snakker alltid om å ha samme utslippsrettigheter. Det er helt gal innfallsvinkel, fordi dette vil fremme forurensing. Vi må snakke om miljørettigheter og ikke utslippsrettigheter.*

Sushil Mainali, Nepal

## **Brasil: Norsk klimapolitikk**

*Brasil er svært sårbar for klimaendringer, og studier spår store endringer i nedbørsmønstre og så å si alle landets økosystemer, med konsekvenser for vannressurser og landbruk. Amazonas er et av de mest sårbare områdene i Sør-Amerika for klimaendringer.*

*Global klimarettferdighet: Norge står for 0,16 % av verdens samlede klimagassutslipp siden 1990, men som storprodusent av olje og gass er Norge i tillegg en storeksportør av klimagassutslipp. Tas dette med står Norge for 2 % av verdens klimagassutslipp. Dette tilsvarer halvparten av Brasils utslipp, til tross for den enorme forskjellen mellom de to landene når det gjelder areal og folketall. Mens industri, oljesektoren og transport er de største utslippskildene i Norge, skyldes rundt 75 % av Brasils utslipp avskoging og annen arealbruksendring.*

*Norges utslipp per innbygger er nesten tre ganger så høye som Brasils, eller hele 5 ganger om vi ser på 2004-tallene. Norge har økonomi, de nødvendige relasjoner med fattige land, og store utslipp som kan kuttes. Sett fra Brasil; hvis ikke Norge klarer å vise at det er mulig å gå mot et lavkarbon-samfunn, hvem kan da klare det?*

*Norsk klimapolitikk legger opp til at Norge skal være karbonnøytralt i 2030, men landet mangler en strategi for hvordan utslippene skal reduseres nasjonalt. Norges utslipp ligger 11% over det som er Kyoto-målet for 2010, mens nabolandet Sverige nådde sitt Kyoto-mål allerede i 2004.*

*Norge må gå fra fossile til rene kilder, men ser ut til å være paralyisert når det gjelder muligheten til å komme seg ut av fossilalderen. Landet må nå gå løs på olje og gasssektoren, industri og transport, og foreslå sektorvise etterprøvbare forpliktelser. Dessverre er transportsektoren i Norge et godt eksempel på petro-avhengigheten. Den dårlig utviklede transportsektoren utenom storbyene, så vell som den ekstreme avhengigheten av privatbil er helt absurd.*

*Tropisk skog: Det norske initiativet for finansiering av reduserte klimagassutslipp fra avskoging er innovativt og fortjener ros. Det oppmuntrer rask innsats og tilsvarende tiltak fra andre land, men må likevel ikke bli føre til utsettelse av felles internasjonale tiltak for å hindre avskoging. Reduserte klimagassutslipp fra avskoging må komme i tillegg til – og ikke som erstatning for – reduserte innenlandske utslipp av klimagasser. Hvis reduserte utslipp fra avskoging kommer som erstatning for utslippskutt i de rike landene, er det ikke mulig å nå målet om å begrense temperaturstigningen som følge av klimaendringene til 2 grader celsius.*

*Den norske satsingen på redusert avskoging kommer etter mange år med samarbeid med urfolk i Brasil, basert på anerkjennelse av urfolks rettigheter. Vi forventer at Norge vil være en vokter for urfolks rettigheter. Rettigheter er helt grunnleggende for å oppnå målene om reduserte utslipp, bedre levekår for skogfolk og bevaring av biologisk mangfold.*

*Olje: Norge er en storeksportør av olje og gass, og har tjent seg rik på virksomhet som har gitt høye klimagassutslipp. Det gir Norge et spesielt ansvar for å lede an en utvikling i retning postkarbonsamfunnet gjennom samarbeid med fattige land. Til nå har ikke Norge tatt spørsmålet om redusert oljeutvinning alvorlig. Tvert imot står statens oljeselskap klar til å kaste seg over nye petroleumsressurser i Arktis etter hvert som stadig mer is smelter o slik høste fortjeneste fra klimaendringene.*

Natalie Unterstell, Brasil

### 3. Questions for Norwegian policy makers:

- Norwegian climate policy emphasises on the promotion of renewable and clean energy in the developing world. Use of food grains in producing clean fuel mainly in the US has already reduced the supply of food grain in the world market. The present price rise of the food grains is an early symptom of this fear. Another instance is that if we produce ethanol we have to expand sugarcane farming. This means farmers who are producing two crops a year have to stop producing food grains. Don't you think that if such energy is promoted in the developed world it will increase hunger in developing countries, and subsequently harm the environment?
- Conservation and trade are two completely different things. But the Kyoto protocol mixed the two. It promotes the idea of handing over the conservation responsibility to others. It is, in fact, awarding the neo-polluter by the old-polluter. How do you anticipate participation of the countries that are not likely to benefit from carbon trading?
- Carbon trade ignores the contribution of the individual household to reduce carbon emissions. This is likely to discourage the real protectors of the environment. How democratic is this practice? How can such a system be justifiable?
- There is a danger of transferring aid money to adaptation funds. This will stop development activities in the developing world. Adaptation funds will be used to reduce the negative impacts, not to improve the living conditions. What is Norway's policy on this?
- Do you agree with my point in the report that CDM in reality is a way of transferring money from the Big old polluters to the Big new polluters?  
How will you secure that the CDM-money flows to countries with a small carbon footprint?
- In a sustainable climate just world, nobody should emit more than about one tonne CO<sub>2</sub>-equivalent. Will you in the climate negotiations in Poland (and later in Copenhagen) work to establish climate justice and emissions per capita as the guiding principle for a post-Kyoto global climate agreement?
- Fossil fuel is the largest contributor of carbon emission. Are there any serious efforts to reduce the exploitation of fossil fuels in Norway?
- REDD is by definition centered on reducing emissions from loss of forest carbon. Does Norway assume REDD as the only global policy with potential to effectively reduce deforestation? In that case, is it legitimate the fear of indigenous peoples over a potential land grab in tropical forests?
- Norway stands ready to profit from global warming by digging under the North Pole for more fossil fuels. Norwegian companies, which are partially owned by the State, are also involved in new reserves exploitation in Brazil. What will be Norway's international climate policy on oil extraction? What Minister Solheim thinks about issuing fewer permits for exploitation?
- What sort of problem in the operation or the application of resources could present itself as reason to suspend donations from Norway to the Amazon Fund?

- Norway spends the lion share of her climate related research funds on carbon capture and storage. To what degree would carbon capture and storage reduce carbon emission thus leading to Norway's carbon neutral ambition? If CCS does not encourage emissions generation but only focuses on capturing and storing, would this measure not be just another money -spinner for industry without real long-term benefits with regard to climate challenge?

#### 4. A Review of the Norwegian Climate Policy

By **Nnimmo Bassey**, Executive Director of Environmental Rights Action/Friends of the Earth Nigeria

***Abstract:** Among the industrialised nations of the world, Norway stands out as one of those who have made serious effort towards tackling the global climate crisis. Although we applaud the efforts being made, we find that there is a major cause for concern, because to a large extent, the policy is based on action outside Norway.*

*Climate Change is a human rights issue. No one contests the fact that it is unjust for industrialised nations to continue with their record carbon emissions while suggesting that actions taken in less industrialised nations in the South would compensate for inactions at home. Justice demands that countries of the North take robust actions at home to stem carbon emissions at source and by so doing show some seriousness in tackling the real manifestation of climate crisis that is threatening the survival of many nations and peoples.*

*An analysis of the Norwegian Climate Policy shows that the major plank of the policy is emissions trading and secondarily investments in carbon sinks in the South. We would like to emphasize the need for developed countries to lead the way in developing a low-carbon society. If the developed countries dramatically reduce their emissions this will be the best incentive for the rest of the world to follow.*

*Funds must be additional to aid. The rich industrialised countries owe it as an obligation, if not a debt to places that have provided a lot of the resources they have used to transform their societies while plunging others into situations from which adaptation is now presented as the only lifeline.*

*Carbon trading and programmes built around it are not the solution to climate change. Real actions must be taken at the domestic level. Policy measures to aid greenhouse gas emissions reductions abroad should be additional steps taken as global citizens who have contributed to the rise of polluting industries in the world.*

*Actions in the South should include debt cancellation, investing in appropriate energy-efficiency and safe, clean and community-led renewable energy. Norway can also encourage rights-based resource conservation that help to enforce community land rights and promotes peoples' sovereignty over their resources.*

*As a big exporter of petroleum and because there are real potentials for increased extraction of the resource, Norway has a huge historical debt with regard to carbon emissions.*

Among the industrialised nations of the world, Norway stands out as one of those who have made serious effort towards tackling the global climate crisis. Although we applaud the efforts being made, we find that

there is a major cause for concern, because to a large extent, the policy is based on action outside Norway. According to the World Bank, the carbon market has thrived over the 10 years of Kyoto Protocol and the value of the global carbon market is estimated to have surpassed \$64 billion in value without achieving a commensurate and real reduction in emissions.<sup>1</sup> It is also said that the most polluting industries continue to post record profits while carbon emissions continue and the world is faced with a continued climate crisis.

Climate Change is a human rights issue and this fact has been recognised by the United Nations. No one contests the fact that it is unjust for industrialised nations to continue with their record carbon emissions while suggesting that actions taken in less industrialised nations in the South would compensate for inactions at home. Justice demands that countries of the North take robust actions at home to stem carbon emissions at source and by so doing show some seriousness in tackling the real manifestation of climate crisis that is threatening the survival of many nations and peoples.

An analysis of the Norwegian Climate Policy shows that the major plank of the policy is emissions trading and secondarily investments in carbon sinks in the South. We would like to emphasize the need for developed countries to lead the way in developing a low-carbon society. If the developed countries dramatically reduce their emissions this will be the best incentive for the rest of the world to follow.

The slow move by industrialised nations towards taking decisive domestic measures can be attributed to the erroneous beliefs that prodigious carbon emission is a mark of progress and development. This thought pattern has also been adopted by emerging economies who are asserting their right to emit greenhouse gases without restraints. Unchecked carbon emission, rather than being condemned is being glamorised and has become a rogue symbol of advancement even when most of the earth is being pushed into more poverty, diseases and disaster.

There is another notion in the policy that requires a preliminary response. This is the notion that capital holds the key to the climate question. We see this notion in the following statements:

“A concerted international effort to reduce greenhouse gas emissions will over time raise the price of emissions. An anticipated rise in carbon prices will have an immediate influence on investment decisions by the business sector. Political decisions too must be based on the assumption that carbon prices will rise. In addition to being more cost effective, climate-related measures in developing countries can have a substantial positive development effect, since such projects contribute to substantial development in the host country through capital transfers.”<sup>2</sup>

A huge gap appears in this policy document with the heavy focus on capital and a less vigorous emphasis on issues of the ethical, social and moral dimensions of climate change. This has implications for both domestic actions and such steps that are taken in other countries, especially where such measures are in fragile and vulnerable environments.

The document rightly recognises the polluter-pays principle that we believe is appropriate and can be enlarged to restrain polluting industries from carrying on business as usual.

In talking about the underlying principles of the climate policy goals, the document reminds us that ‘The **precautionary principle** states that where there is a threat of serious or irreversible damage, lack of full

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<sup>1</sup> Ma'anit, Adam, *Costing the earth*, New Internationalist, July 2008. P17

<sup>2</sup> Norwegian climate policy – summary in English, p. 6

scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation. In other words, «where there is scientific uncertainty, nature should be given the benefit of the doubt», as the principle was explained in the EEA Agreement...<sup>3</sup>

## EMISSION TRENDS

Efforts by Norway to keep carbon emissions level to no more than 1% of her 1990 level (approximately 49,7 million tons CO<sub>2</sub> equivalents) as permitted under the Kyoto Protocol failed because of events in her petroleum industry. By 2007 emissions stood at approximately 55 million tons or a 2.7% increase from 2006 figures or an increase of almost 11% above the 1990 figures.

We note that official figures place the blame for the high CO<sub>2</sub> emissions on the gas flaring at the LNG plant at Melkøya. This point alone contributed 1.6 million tonnes of CO<sub>2</sub> equivalent in 2007. This underscores the fact that oil industry activities pose special threats to the global climate.

As a Nigerian, I can say that gas flaring is a major problem. It does not only release huge greenhouse gases into the atmosphere, it also releases hazardous and toxic chemicals that pose serious health and environmental challenges. In Nigeria, over \$15 million worth of gas associated with crude oil extraction is flared daily<sup>4</sup> in the Niger Delta, releasing a toxic cocktail into the environment. The volume of gas flared in Nigeria is estimated at 2.5 billion cubic feet per day.

Nigeria has about 2.2% of the world's population and accounts for 0.4% of global emissions or an average of 0.9 tonnes of CO<sub>2</sub> per person by 2004 estimates.<sup>5</sup> Norway, on the other hand, has 0.1% of the world's population and accounts for 0.3% of global emissions. In 2003 Norway's per capita emission was 54.1 tonnes of CO<sub>2</sub>, and in 2007 emissions had risen to 55 million tonnes CO<sub>2</sub> equivalent<sup>6</sup>. This is expected to rise to 59 million CO<sub>2</sub> equivalents by 2050.<sup>7</sup>

Norway's emission levels are said to be above those of other High-income OECD. According to UNDP's human development report 2007/2008, "if all countries in the world were to emit CO<sub>2</sub> at levels similar to Norway's, we would exceed our sustainable carbon budget by approximately 758%."<sup>8</sup>

High-income OECD countries meanwhile lead the league of "CO<sub>2</sub> transgressors". With just 15% of the world's population, they account for almost half of all emissions. If the entire world emitted like High-income OECD countries -an average of 13.2 tonnes of CO<sub>2</sub> per person, we would be emitting 6 times our sustainable carbon budget.

The bulk of the emissions in Nigeria are attributable to the oil industry - the major culprit in the climate equation and needs to be seriously reined in and radically controlled if the climate battle is to be won.

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<sup>3</sup> Ibid p.9.

<sup>4</sup> The Guardian (Lagos), *Nigeria Loses N6b Daily to Gas Flaring*, <http://www.guardiannewsngr.com/news/article01//indexn2.html?pdate=050808&ptitle=Nigeria%20loses%20N6b%20daily%20to%20gas%20flaring>

<sup>5</sup>UNDP Human **Development Reports 2007/2008 Highlights** [http://hdrstats.undp.org/countries/country\\_fact\\_sheets/cty\\_fs\\_NGA.html](http://hdrstats.undp.org/countries/country_fact_sheets/cty_fs_NGA.html)

<sup>6</sup> Wri.earthtrends/ssb.no

<sup>7</sup> The policy document says that this is an uncertain estimate based on uncertain variables.

<sup>8</sup> [http://hdrstats.undp.org/countries/country\\_fact\\_sheets/cty\\_fs\\_NOR.html](http://hdrstats.undp.org/countries/country_fact_sheets/cty_fs_NOR.html)

Norway, as a major oil producer, derives huge revenues, amounting to 45% of the nation's export value, from the petroleum sector and has an obligation to help bring about a shift from the climate distorting business.

The fact that Nigeria's per capita emissions stands at 2.5 % of that of Norway<sup>9</sup> shows the enormous gap that exists between the emissions from industrialised nations and the less developed ones. We note that without the massive gas flaring by oil companies operating in Nigeria, the level of emissions attributable to Nigeria would be minuscule indeed. This underscores the justice factor in the climate debate and places the burden for concrete action on the industrialised countries such as Norway. Climate change is already placing very heavy burdens on Nigeria's fragile infrastructure, agricultural productivity, desertification and the depletion of the means of livelihood of millions of her citizens.

The policy document also reveals the worrying fact that the Norwegian reduction measures that will be implemented in the period up to 2020 are unknown.

"Developments on the Norwegian continental shelf will be particularly important for emission levels in Norway in 2020." This is obviously referring to the highly polluting petroleum industry. The oil industry is currently responsible for 25% of the total greenhouse gas emissions.<sup>10</sup> Overall, the energy sector accounted for 70% of emissions in 2005.

## **TARGETS FOR CURBING EMISSIONS: TRADE versus DOMESTIC ACTION**

Norway plans to reduce global greenhouse gas emissions by the equivalent of 30% of its 1990 levels by 2020. How will this be done?

We note the "Parliamentary climate agreement" where Norwegian parties pledged to work towards making Norway "carbon neutral" by 2030. We also note that there is no clear mechanism by which this is to be attained. Would this be by domestic emission reductions or through the use of official mechanism for buying carbon credits such as the CDM?

The path Norway plans to take to achieve the carbon-neutral objective is not acceptable because it will not yield real results on the ground. Planning to be 100% by paying for emissions reduction in other countries as well as through emissions trading mechanisms "that become available" is not realistic. It is unrealistic both because the offsetting paradigm encourages business-as-usual and because it is based on future market mechanisms that may become available. Moreover, the target says nothing about the volume of emissions that would happen in Norway but rather places hope in offsetting whatever the volumes may be by the use of market mechanisms.

This is a major flaw in this policy document. Too much faith is placed on future mechanisms and it does come across as a clever way to place burdens of today's inaction on future generations. This is the classical definition of unsustainable planning.

The Norwegian policy document states that government would take steps to reduce greenhouse gas emissions by 10% points more than its Kyoto commitment largely by "funding emission reduction in

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<sup>9</sup> <http://earthtrends.wri.org> and [ssb.no](http://ssb.no)

<sup>10</sup> Report T-145/2006 cited in the Case Studies on climate change response and strategies of selected Annex I countries by Stine Aakre and Asbjorn Torvanger. December 2007

developing countries.” (P.11). This is not a positive step and will not produce overall positive reductions. Already we note that emissions levels are already exceeded.

### **The Kyoto and Post Kyoto Mechanisms**

The global North has historically contributed disproportionately to the amounts of greenhouse gases in the atmosphere whereas the global South has been saddled with the impacts and is now being forced into a corner from where she has no option but to seek means for mitigation of the impacts and adapting to them as well. It is instructive as we shall see that the slant of these official frameworks and mechanisms have been intimately tied to trade and have had the main slant of opening up opportunities for huge financial benefits for polluting industries while the South will be further pushed into the debt trap through the strategies of the World Bank and other international financial players.

One of the key failures of the Kyoto protocol is that it did not unambiguously pin the blame for the problem on hydrocarbons. As long as this was the case, the frameworks for handling the problem were fundamentally flawed. Conventional wisdom instructs us to tackle the root causes of problems rather than the symptoms if we wish to radically pursue long lasting solutions. Norway must show leadership in this quest.

The Kyoto protocol was set on a market ideology and this has blocked the pathway to real and just solutions to climate change. Even the discussion at Bali (December 2007) on **Reducing Emissions from Deforestation and Degradation (REDD)** is hinged on the same market ideology. It allows Northern countries to finance forestry projects using the World Banks carbon funds and claim carbon credits that offer permission to carry on polluting at home. The REDD scheme is already sending red alerts through the South as communities worry that control of their forests and lands will be taken over by carbon traders and speculators thereby further marginalising them and placing them at greater risk than the climate chaos itself has done.

This must not be the sort of future mechanisms for curbing climate change that Norway is seeking.

### **UPSET THE SOUTH BY OFFSETS**

The major thrust of carbon trading with the south and carbon offset strategies is to transfer the responsibilities for the impacts of climate change to the South while the polluters reap profits from the new business built upon disasters. These mechanisms aim to transfer the responsibilities and the impacts to the South, creating new threats for the peoples such as conversion of indigenous territories into plantations, land grabbing and displacements of populations. These mechanisms provide a cover for forests to be given to private businesses and equally aid the privatisation of protected areas and natural forests; occupation of peasant and agricultural lands, and the deprivation of the local communities of their rights and livelihoods. All these mean a subsidy to the polluter/business and a stimulus for energy guzzling countries in the North, to maintain their production and consumption models.

Oilwatch International notes that the “World Bank (WB) is one of the biggest public financiers of the fossil-fuel industry and one of the biggest intermediaries in the carbon market. Since 1992 to 2004, the World Bank has assigned \$11 billion for more than 120 fossil-fuel projects (projects that represent 20% of all

emissions per year). In the carbon market, the WB currently controls about \$2 billion with a 13% profit on each transaction. It will now become the manager of more than \$50 billion needed by developing nations to adapt to climate change.”<sup>11</sup>

The World Bank’s attention to mitigation and adaptation in country assistance strategies has been adjudged as “inconsistent, and over the past three years, only about 30 per cent of its financing in the energy sector has met two out of the four criteria for ‘integrating’ climate change into decision making. Oil and gas projects and coal fired power continue to play a significant role in its portfolio.”<sup>12</sup>

Development aid is a vital component in the climate fight. Vulnerable communities need aid to build resilience and mitigation actions as well. Tackling deforestation by investing 3 billion NOK per year is commendable. The amount should be increased and successes replicated as a basic aid necessity. This should be connected to emissions reduction and should also be seen as support to restore devastated environments which to a large extent have been exploited to meet huge tropical woods needs in the North. It should be aided for the reasons that this would rebuild devastated communities and livelihood, strengthen fragile ecosystems and support the rejuvenation of environmental goods on which the people heavily depend.

Vulnerable countries need to be assisted in setting up community defence mechanisms. This can be achieved through the adaptation measures mentioned in the policy document (page 15) where these include “everything from economic diversification to knowledge and technology development, capacity and social planning.”

## CONCLUSIONS

As earlier mentioned, it does appear that a large part of the Norwegian climate policy is premised on emission trading with the south. This needs radical review. We suggest also that the goal “to develop a basis for agreement on guidelines that are non-protectionist and will encourage trade in environmental goods and services and facilitate the transfer of climate friendly technology to developing countries” should be carefully considered to ensure that monetary values are not placed on nature and life which are basically of inestimable value.

It is also questionable having carbon finance funds based on an aid framework for climate change financing which places the parties to the financing in a donor-donee relationship contrary to international climate change principles and obligations<sup>13</sup>. This stance is bound to generate frictions and wastages if not addressed.

The issues we have reviewed are fundamentally justice issues and the frameworks and funds for combating climate change must recognise this. Funds must be additional to aid. The rich industrialised countries owe it as an obligation, if not a debt to places that have provided a lot of the resources they have used to transform their societies while plunging others into situations from which adaptation is now presented as the only lifeline.

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<sup>11</sup> **Feil! Fant ikke referansekinden.** Position on Adaptation to Climate Change, June 2008

<sup>12</sup> World Resource Institute, June 2008. Quoted in Bretton Woods Project Update 61.

<sup>13</sup> Third World Network briefing note

**Carbon trading** and programmes built around it are not the solution to climate change. Real actions must be taken at the domestic level. This will happen with the right political will and with citizens' readiness to adjust their living and consumption patterns. This will happen with sufficiently broad public participation and debate in formulating a policy such as the one under consideration.

The Norwegian climate policy places great stock on carbon emission restraints to result from high carbon prices or taxes. This, however, may not yield needed results if polluting industries continue to reap astronomical profits even in the face of global recession. This is why the "CO<sub>2</sub> tax and the emissions trading scheme as the most important policy instruments in the petroleum sector at present" (page 39) may not deter this heavily polluting sector.

Finally, the policy should aim at reducing emissions at source through domestic policies. This should include technological measures, changes in consumption patterns, etc. Policy measures to aid greenhouse gas emissions reductions abroad should be additional steps taken as global citizens who have contributed to the rise of polluting industries in the world.

Actions in the South should include debt cancellation, investing in appropriate energy-efficiency and safe, clean and community-led renewable energy. Norway can also encourage rights-based resource conservation that help to enforce community land rights and promotes peoples' sovereignty over their resources.

Debt cancellation would enable poorer countries to be more efficient in the use of their resources and to invest in alternative energy as well. Pressure to meet debt obligations often push environmental concerns into the background, as the major concern is often to please creditor nations and institutions in order to remain in the good books and to attract more assistance as well.

Finally, as a big exporter of petroleum and because there are real potentials for increased extraction of the resource, Norway has a huge historical debt with regard to carbon emissions. We say this because whether the resource is used in Norway or somewhere else, it constitutes a major contributor to greenhouse gases in the world.

Norway is a leader in carbon storage technologies. It is the opinion of this reviewer that Norway should go the extra mile in this ecological leadership and shepherd the world towards the post-petroleum civilization in which this resource would have given way to renewable energy sources.

## 5. CLIMATE CHANGE AS SEEN FROM THE SOUTH: COMMENTS ON NORWEGIAN CLIMATE POLICY

**Sushil Mainali**, journalist and member of Nepal Forum of Environmental Journalists (NEFEJ). Nepal.

*The CO<sub>2</sub>-emissions of Nepal have increased by 387 percent since 1990. But still an average Norwegian emits 87 times more CO<sub>2</sub> than a Nepalese. This is not climate justice. Norway should take the climate challenge more seriously and start to reduce the emissions at home, and among them stop the exploitation of oil. Norway also “has to reduce the emission level by changing from luxurious living style to comfortable ones”.*

*Norway put too much emphasis on CDM as a solution. This is irresponsible and means that money is being transferred from the Big Old Polluters to the Big New Polluters. Environmental crime is rewarded. For a country like Nepal, who has a small carbon footprint, and thereby does not have any fossil energy to convert to renewable energy, it is very hard to develop CDM-projects. But in cases where there are possibilities, it is very important that Norway contributes by offering facilitation and transfer of know-how about how to develop viable CDM-project. But first of all Nepal needs compensation from old and new polluters: Nepalese have got a green lifestyle and are not responsible for the climate change, but the consequences are among the highest in the world.*

*Poor countries around the world will be hit hard by the climate changes. It is therefore of key importance that these areas get assistance to adapt to new conditions. “This requires a massive amount of funding, not the small amounts that are being offered now”. Funding for adaptation measures should be a natural lengthening of development cooperation. Norway should give Nepal aid to map consequences of the climate change. It is also important that development aid not only focuses on emission reduction and adaptation, but that it also keeps focus on regular development and social work, such as aid on education, health and infrastructure.*

*Developed countries are always talking about having emission rights. This is a wrong angle of incidence, because this will promote pollution. Instead we must talk about environmental rights, not emission rights.*

### **Climate change in Nepal**

Nepal has very limited information and only some assumption about the trend of climate change and its impact on our daily lives. Even the scientists and other people working in the field of climate change are unknown on these issues. They just guess negative impacts of climate change but they cannot justify their statement scientifically.

The government has not formulated any policy regarding climate change. The Ministry of Environment and Science and Technology is the lone ministry involved on this issue. There is no coordination between the ministries that are supposed to take initiatives to reduce the affects of the climate consequences. The political instability and the lack of awareness and knowledge among the political leaders on this issue are the main obstacles in dealing with climate issues in Nepal.

We are silently facing the consequences of climate change. There is no idea about the future climate consequences. Consequences of unknown problems are worse than the problems that are known. Thus,

Nepal's situation is really alarming. But it is pushed under the shadow of very volatile political environment of the country.

From others' experiences we can assume that impact of climate change is deep and diverse but our capacity to adapt the new situation is very low. People who are totally dependent on the natural resources like forest and water are at the highest risk. The water storage is not recharged in monsoon though the data of the average rainfall is almost the same. It causes the shortage of the natural spring water and shortage of water on drinking and irrigation sector. According to WWF, risk of water shortage is bigger than the risk of coastal flooding and risk of diseases like malaria.<sup>14</sup>

The pattern on rainfall has been changed. The rainy days are declining but the average rainfall is the same.<sup>15</sup> This means when it rains it rains heavily causing floods and soil erosion. Because of the floods and soil erosion the river has risen above the level of settlement in Nepal's plain popularly known as the Tarai. The temperature growth is also higher in Nepal than in other countries in the region. It is growing very fast in the higher elevation (The Himalaya and the Trans Himalayan region) making the possibility of outburst of glacial lake in the Himalayas high.

Nearly 20 Glacial Lakes are in danger.<sup>16</sup> They can explode anytime which is likely to damage the infrastructure, fertile land, property and human settlements downstream.<sup>17</sup>

The agricultural sector on which 81 per cent of the people are dependent has not seen much progress. Its growth rate is very slow.<sup>18</sup> The number of people suffering from hunger and food shortage has already been growing.<sup>19</sup> The children and the poor are those who are hit hardest by this phenomenon. The impacts of climate change on these groups are also likely to be the hardest one.

The number of diseases in Nepal is growing. The spread of vector diseases is also growing creating a new challenge for the medical sector. Number of person visiting doctors is growing and comparatively more people are dying by the uncontrolled diseases such as Japanese encephalitis, tuberculosis, malaria and kalajar.<sup>20</sup>

I am commenting on the policy paper with this context in mind.

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14 Norwegian Consumption Chinese Pollution, An example of how OECD imports generate CO2 emissions in developing countries, WWF

15 Personal communication, DAHAL Ngamindra, National Trust for Nature Conservation, 4 Aug 2008, Kathmandu

16 Mool P.k; Bajracharya S.R; Joshi S.P. (2001 a) Inventory of Glaciers, Glacial Lakes, and Glacial Lake Outburst Flood Monitoring and Early Warning Systems in the Hindu Kush - Himalayan Region – Nepal Kathmandu: ICIMOD.

17 Ibid.

18 Proceeding report of National workshop on Climate change and human health: Potential impact, vulnerability and adaptation in Nepal, NHRC/WHO, 2007, P 50.

19 Nepal: Drought compounds food insecurity in western regions. <http://desertification.wordpress.com/2008>

20 Proceeding report of National workshop on Climate change and human health: Potential impact, vulnerability and adaptation in Nepal, NHRC/WHO, 2007, P 74, P 75, P 86.

## Norwegian climate policy and CDM

Norwegian pollution trend:

Norway's per capita CO<sub>2</sub> emissions rate is 9.60 tons<sup>21</sup> and it is increasing every year. In comparison to 1990 the per capita emission has increased by 26.5 percent, which is higher than that of the USA (19.6 percent) and also higher than Norway's neighboring countries Finland and Denmark. Germany has decreased its per capita emissions by 14 percent in same period. Sweden has decreased the same by 2.2 percent. Nepal's per capita carbon emissions has increased by 382.6 percent in comparison to 1990. But still Nepal's per capita emission is very low, i.e. 0.11 tons.

Kyoto protocol has a target for Norway that Norway GHG emission does not exceed one percent of pre-industrial (1990) level from 2008 to 2012. But the research and data present on the Norwegian commitment shows that the emissions cross the target set by the Protocol. If Norway has its commitment to meet the Kyoto target it must meet the target and limitation from the beginning. Enough homework to minimize emission level has to be done.

"According to the "with existing measures projections", Norway has a Kyoto gap to close that corresponds to about 9 Mt per year in the period 2008 to 2012. The Norwegian government has indicated that credits from Joint Implementation (JI) and the Clean Development Mechanism (CDM) will be used if necessary in order to fulfil the Kyoto commitments."<sup>22</sup> This means that Norway is not ready to fulfil the Kyoto targets inside the country. Norway has decided to buy carbon credit through CDM from the developing country. In my opinion CDM is not in favor to the country like Nepal, because:

1. Nepal has a low carbon footprint and it is very hard to get CDM money for the country which baseline is already good.
2. It can not develop a big CDM project and small CDM project does not get attention and even the price of carbon per ton is very low.
3. It is more difficult to develop CDM project in a low-emission country like Nepal and Bhutan than high emission country like China and India.
4. It is more time consuming and need technically sound expert. It also needs cooperation between the ministries, which is rarely seen in developing countries, and countries where the government is not stable.

## Who will get benefit?

According to estimates from sources including the World Resources Institute, India is the fourth largest emitter in the world, after the US, China and Russia.<sup>23</sup> The present trend shows that neo-emitters are getting the money from the past emitters. The forum is always provided for the emitters but not for the

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<sup>21</sup> United Nations Statistics Division/Co<sub>2</sub> emissions per capita in 2004.

<sup>22</sup> Case studies on climate change response policies and strategies of selected Annex I countries, Norway and Sweden, CICERO report 2007:10

<sup>23</sup> Norwegian Climate Policy , Summary in English: Report No. 34 (2006-2007) to the Storting

countries which are preserving the nature and are contributing very low CO<sub>2</sub> in the environment. There is a need to classify the countries and fixed the rate of carbon price. The low emitters must get higher price per tons. But now the polluters are getting the reward for the environmental crime they committed in the past. The Kyoto protocol is biased towards north and some big countries in south at least on this issue.

### **Norway and CDM:**

In March 2005 Norway formed the Low Emission Commission with the mandate of "The Commission's main task is to review how Norway can achieve significant cuts in domestic greenhouse gas emissions in the long term – a 'national climate vision for 2050'. The Commission presented its report (NOU 2006:18) on a climate-friendly Norway on 4 October 2006. Its main conclusion is that reducing Norwegian emissions by about two-thirds by 2050 is necessary, feasible and not prohibitively expensive. (Norwegian Climate Policy Summary in English: Report No. 34 (2006-2007) to the Storting)

It shows that Norway will buy one-third of its carbon cuts until 2050 outside the country. Let Norway be the example and lead the world by cutting down its emission level inside the country in the long term. Norway does not have such a big target on Kyoto. They do not need to invest the money on CDM. It needs midterm goal in between 2020 to 2030 for two third cuts and within 2050 Norway should cut the emission level hundred percent inside the country and be a zero emission society. To achieve this target it does not need money. The only thing Norway need is political willpower and the awareness among its citizens.

Buying carbon seems like a business and the involvement of the institution like World Bank is not favorable to the least developed country. For example, Nepal gets CDM money through the World Bank for the promotion of biogas. Nepal gets very low price of carbon compared to the world market. Nepal is getting only US \$ 7 per ton of CO<sub>2</sub> on this project. This is because of the poor bargaining power of the Government and the interest and involvement of World Bank on biogas sector from the beginning. And there are no rights on household level. They could not stop to run the biogas project if they do not like it or they get alternative sources. To run one biogas project it needs to have some domestic animals in each house. But if they want to switch their occupation it will affect the whole CDM project. This indicates that World Bank is working for the developed countries and for banks profit. Companies and governments are attracted to the various Carbon funds of the World Bank by the proven record of the World Bank in providing shareholders with Kyoto-compliant certified emission reduction assets at a guaranteed low price.<sup>24</sup>

Norway's Finance Ministry already realizes that there is not any proposal from the small countries to get this money. There is a lack of knowledge about which procedures is needed to get this money in Nepal. Norway should facilitate to develop and compile the CDM project on big scale. And help to get better price on European market.

Irony of CDM system is evident with the example of China. China is the country that has made most use of the CDM and is the second biggest emitter after USA in recent years.

### **Climate justice**

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<sup>24</sup> <http://carbonfinance.org/Router.cfm?Page=FAQ&ItemID=24677>

In terms of carbon emission a Norwegian citizen is equal to 87 Nepalis. This is the proof of injustice if it is analyzed on the basis of climate justice. The justice is there where one person of any country of the world is equal to one person of another country. The economic condition and access to resources may be unequal but the share on climate and environment must be equal. For that there is a need to change lifestyle. The developed country like Norway has to reduce the emission level by changing over luxurious living style to comfortable ones. So the developed countries should show their commitment clearly to minimize the emission in their home and compensate those who have not emitted carbon. I am not arguing for funds without conditions. One condition might be that such funds be used to strengthen the mechanism to cope with the impacts of climate change such as flooding, drought, and vector-borne diseases.

Up to 30 % of plant and animal species in the world are in danger of extinction.<sup>25</sup> If this happens Nepal and global community loses a huge number of plant and animal species. It affects the ecosystem directly making daily lives of people difficult. We will lose some animals and plants that are already endangered. The CDM money is not of any direct help either to protect biodiversity or to reduce the effects. It only insists on the reduction of the amount of carbon and pay for that. It is a very dangerous proposition for the future generations of the developing world.

Playing fields in terms of carbon emission is not levelled. Some emit very high level of carbon while others emit very low level of carbon. Countries like Nepal emit very little (to the extent that Nepal can claim that it does not emit at all) carbon. Asking us not to increase our emissions is just like asking a person with only one set of clothes not to buy more clothes because those who have 100 set of clothes have agreed to discard at least 50 sets. Considering the major threat that climate change means for Nepal, what we need is a compensation from the developed countries (those who emit now and had high emissions in the past), not carbon trading.

“Competent environmental management and an active environmental movement are important in order to ensure sustainable development. This is true both in the North and in the South. It is vital to improve environmental capacity and competence in our partner countries,” said Minister of the Environment Helen Bjørnøy. (Action Plan for Environment in Development Cooperation). This is true that the environmental movement is very much important to north than to south because the emission is from the north and they have to minimize it by minimizing the over consumption of goods and facilities.

The UNFCCC lays down the principle that the developed countries should take the lead in efforts to combat climate change and its adverse effects. World production and consumption patterns must be changed, and the developed countries have a special responsibility for leading the way. However, both per capita and total emissions are expected to rise substantially in developing countries. Most of the anticipated rise in greenhouse gas emissions will be in non-OECD countries. In the longer term, important developing countries will also have to take on emission commitments if we are to achieve the long-term goals of the UNFCCC. To promote this idea it is better to promote clean and green products. Goods must be imported from the countries where clean energy, not the fossil fuels is used. Though it will be more expensive but as a number one rich country in the world Norway has a capacity to pay for it and has a responsibility to lead the carbon neutral world.

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<sup>25</sup> Norwegian Climate Policy, Summary in English: Report No. 34 (2006-2007) to the Storting

## **Adaptation**

Both Norway and the EU aim to limit the average rise in global temperature to not more than 2°C above the pre-industrial level. However, even if this target is achieved, poor regions of the world will be hit hard by climate change. Adaptation is therefore of key importance for these areas. This includes everything from economic diversification to knowledge and technology development, capacity building and social planning. Adaptation is an urgent need to the poor countries. Nepal is not ready to tackle this situation. It is not ready to get adaptation fund. Because the document NAPA needed to get adaptation fund is not ready. We have a green lifestyle but consequences are still highest in the world. The adaptation process is not systematic and not in a planned way.

To get the adaptation money, the country needs a National Adaptation Program of Action (NAPA). Nepal has not got the grant money to prepare NAPA yet, though the process was started on early 2007. And Nepal has not started to make NAPA yet. It is because of the lack of awareness about climate change. Norway could help raise awareness, and give pressure to the head of the state and to the policy makers to start it as soon as possible. To prepare NAPA more scientific ground is needed. For that we need experts, who know the consequences of climate change in the future, to educate the people and policy makers. The impact of the climate change is diverse and not fully known and we only know it will come. Adaptation to climate change is key for all countries, but notably so for the poorest, which are also the most vulnerable. The key to adaptation is development and economic growth; therefore adaptation must be an integral part and natural extension of development cooperation. (Norwegian statement: Climate change as a global challenge).

Adaptation is the most needed thing in the poor countries. For that the developing countries have to understand what the climate impacts are likely to be, where they will be and who will suffer most. We have to help them to prepare for the adaptation. For that we need a massive amount of funding, not the small amounts that are being offered now. It is urgently needed. Otherwise we will get major impacts that will be unavoidable.<sup>26</sup> This funding should come through state-to-state cooperation, through civil society organizations and multilateral organizations.

Developed countries are still talking about the 'same emission rights', which is totally wrong perception. This will promote the pollution. They are encouraging the developing countries to do more pollution by fixing emission quotas. We have to talk about the 'environmental rights' not emission rights.

## **Stop deforestation:**

The Norwegian government promised at the Bali climate negotiations to spend 3 billion NOK per year from 2008 to 2012 to reduce green house gas emissions by halting deforestation in tropical countries. This is a good start, but it depends how the countries implement the project. Indonesia ranks 16th among the world's largest emitters of CO<sub>2</sub>, but fourth when emissions from deforestation and land-use change are included. Per capita emissions of greenhouse gases are about 4.7 tonnes. At present, 60 % of Indonesia is still forested, but the deforestation rate is one of the highest in the world, and deforestation is the largest source of CO<sub>2</sub> emissions, followed by rapidly rising emissions from the energy sector. (Norwegian Climate Policy Summary in English: Report No. 34 (2006-2007) to the Storting). If the money goes to the country

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<sup>26</sup> Personal communication, Dr. Saleemul Haq, Group Head, Climate Change, iied London, Dec. 8, 2007, Bali, Indonesia

which could not stop the illegal deforestation then the impact of the money will be minus. Who will be responsible for that loss?

### **Energy and development aid**

Norwegian Climate Policy mentions that "the International Energy Agency (IEA) has estimated that world demand for energy will rise by more than 50 % up to 2030, and that more than 80 % of the necessary energy production will be based on fossil fuels. This highlights the need to develop alternative energy sources for large parts of the world."

The main target of energy sector should be the developed countries themselves. Clean and green technologies should be practiced in developed countries on a mass scale. This because developed countries are more capable (in terms of economy and technology) to adapt these technologies. But still there is a chance of food scarcity and starvation in developing countries if they choose to go to renewable energy produced from foodgrains and ethanol. So the clean fuel of US model does not help the poor country, which does not have enough food to eat. So they have to stop the practices that produce more carbon. For that there is an urgent need to modify their living standard. They are buying goods/machines that they don't really need. They never think of alternatives, and they never calculate the emissions from their daily activities. In most of the developed countries, public transport ply on the road with very few passengers, but at the same time so many private cars with one person can be seen on the street. This self-centered practice is the main cause of emissions. The rich countries do not want to choose clean energy sources.

There are so many challenges related to development aid for energy purposes. Energy is a basic need of development, and without development of the energy sector, carbon emissions will not be reduced. So there is a need to control and stop the energy from fossil fuel, and convert it to clean energy. Aid must be provided for the research and expansion of the renewable energy sector for these countries, which has very limited sources of clean energy, and to promote and develop renewable energy for countries that has easy access to sources - like hydropower. If the money goes to support fossil fuel economy, then there are very few chances of reducing the amount of carbon that is emitted to the environment.

There is a chance of diverting the development aid to clean energy sector. In future, rich countries will be more interested to invest the money which reduces the CO<sub>2</sub> emission. "Development funding can also be used to reduce greenhouse gas emissions. The guidelines for use of Official Development Assistance (ODA) do not permit direct purchases of emission credits. However, provided that certain conditions are fulfilled it is possible to invest this type of funding in emission -reduction projects under the CDM. In addition to bringing about cost effective emission reductions, such projects involve transfers of knowledge, technology and funding that can promote sustainable development." The Norwegian climate policy rightly pointed the need. But if the developed countries focus only on CDM projects, the development priority of the poor country will be in the shadow. It will divert development aid to emission reduction projects and adaptation. The regular development and social work, such as aid on education, health and infrastructure could be stopped.

Norway is a big exporter of petroleum products and it stands on third position on the world market. There is no binding rule for the oil exporters who earn money by emitting carbon. If the petroleum producers have to pay some money for their work of extracting and selling these products, which are harmful for the environment, then obviously the price goes up. In Norway there are obligations to pay CO<sub>2</sub>-tax to the

government, but this alone is not enough to promote clean energy. If the price of petroleum products goes up, people and the country have to think of other sources of energy, which are green and clean.

The oil and gas sector currently is Norway's largest industry; in 2001, the sector accounted for 22 percent of gross domestic product (GDP), and 45 per cent of the country's export value. In terms of emissions, the oil and gas sector is responsible for approximately 25 per cent of total greenhouse gas emissions (Report T-1452/2006). (Case studies on climate change response policies and strategies of selected Annex I countries, Norway and Sweden, CICERO report 2007:10) Norway is using renewable energy to run the industry inside the country but getting the money from oil and gas. Norway is getting 45 percent of money from abroad by selling the sources of emissions. The production of fossil fuel must be stopped at some point. It will be too late to take action against global warming and climate change if we wait for the new technologies. It is the current need that the government and political leader go for less carbon society and convince the people.

### **Advocacy and lobbying.**

In its Fourth Assessment Report, the IPCC estimates the costs of limiting the average rise in global temperature to no more than 2°C above the pre-industrial level at just under 3 % of global GDP in 2030 and about 5.5 % in 2050. This is not such a big target. 5.5% of total GDP is very small amount of money. So from the perspective of south and the people who do not have any contribution to the global warming, an equal amount of money has to be paid to the non-polluting world as compensation, in addition to the aid money. Developed countries must pay this for the mistakes they did in the past. If this trend is established, other countries that are still emitting CO<sub>2</sub> have to be careful for their work and should go for green technologies. For example China and India, who are the big emitters in these days, have to rethink their fossil fuel projects, both running and in the pipeline.

It is a well known fact that the climate change negotiating process has been significantly hampered by much unnecessary positioning and bickering, often over insignificant details that hold up progress on the really important issues. Some of this may unfortunately be put down to a lack of trust between major negotiating groups. But there also often seem to be more obscure agendas at play, which we could well do without. There may therefore be a case for injecting new oversight into this process, in order to make it more forward-looking. (Norwegian statement: Climate change as a global challenge) Someone should start, but there is no forum for the poor countries. Their voice is not heard in the big forums under the UNFCCC, and also the poor countries cannot send big teams with big technical support from renowned scientists. They lack research and fact to prove their arguments. In this situation, Norway has to play a leading role, to raise the voice of the poor countries in global forums. I am going to explain this by one example. This year the people from high mountain area went to collect yarsha gumba (Cordicep Synesis). This half larva and half fungus are found on the Trans Himalayan region above 3,500 meter from the sea level and the income from it is the main sources of the mountain people. This year they also faced the consequences of climate change but they did not know about it. They think that god is not happy this year. Due to this consequence they spent one more month in the mountain because the ice in the area where yarsha gumba comes, did not melt because the snow kept coming for a long time. Because of this they spent more money for food and medicine, but were not able to collect yarsha gumba like in the previous year. I discussed with scientists about this situation. They agreed it happens because of climate change, but they could not prove it on scientific ground.

**Findings and recommendations:**

Norway has done some efforts to reduce CO2 emissions. But still being the top rich country in the world Norway has to do more on this issue.

As a citizen living in the southern world, my recommendation to Norwegian policy makers, civil society and climate experts are:

- CDM is not the right way of tackling the problem. This is rather irresponsible way: "I will continue polluting the environment and find some one to tackle the mess I created by giving some money." Focus should not be on creating rich economy with poor environment. Rather it should be on creating rich economy and rich environment at the same time.
- Norway should take climate issues more seriously and start to use climate friendly technology at home in mass scale and help to transfer technology to the south. CDM is unfulfilling to reduce the global temperature in long term. It should help, but this alone is not a solution. Norway should take some effective and strong initiatives to reduce emissions inside Norway.
- Norway should give help to the least developed countries to find out about possible consequences of climate change in their country.
- Norway should play a leading role and raise the issues of the southern world in major international forums. It should help to make a bigger (from Government and civil society sector and both in quality and in quantity) participation of the developing countries.
- Norway should help to make climate change issues a political agenda in developing countries and sensitize it on politics and policy makers level.
- Should integrate climate change adaptation with disaster risk reduction.
- Should support raising awareness in the community through media and the academic world.

## 6. Climate policy in Norway seen from Brazil

By Natalie Unterstell, Instituto Socio-ambiental, Brazil.

**Abstract:** *Brazil, due to its continental size and its 8000 km of Atlantic coastline, is highly vulnerable to climate change. Studies foresee significant changes in the rainfall regime and changes in virtually all Brazilian ecosystems, as well as impacts on water resources and agriculture. The Amazon constitutes one of the most vulnerable regions in South America.*

**Global climate justice:** *While Norway accounts for 0.16% of the global cumulative GHG emissions since 1990, Norway is also one of the world's top sources of oil and gas, so its 'exports of GHG emissions' sum up to 2% of global share. This is equivalent to half of Brazilian emissions, in spite of the striking differences in size and population of these two countries. Differently from Norway where industry, petroleum and road traffic are the largest contributors to GHG emissions, in Brazil about 75% originates from deforestation.*

*Norway's emissions per capita are almost 3 times that of Brazil - or five times if we consider the 2004 level. Norway has financial means, relevant and historical relations with developing and poor countries, and a big amount of emissions that can be cut. Seen from Brazil, if not Norway, then who will be able to prove it is possible to move towards post-carbon society?*

*The Norwegian climate policy promise carbon neutrality by 2030, but lacks a strategy for substantial reduction domestically. The country's emissions are 11% above the Kyoto target for 2010, while its neighbour Sweden was able to meet the target already by 2004.*

*Norway needs to prioritize shifting from fossil to clean fuels, but there seems to be some paralysis with regards to weaning off the fossil fuels in Norway. Norway must address oil and gas, mining and transport sectors, proposing sector-specific, verifiable commitments. The road transport sector in Norway is unfortunately a good example of petroholicism. The country's slow inter-city transport as well as the dependence on individual vehicles is absurd.*

**Forest:** *The Norwegian initiative to support reductions in emissions from deforestation is innovative and meritorious. It allows early efforts and encourages other countries to join it or adopt similar initiatives, but should not delay international mechanisms to address tropical deforestation. Reduced emissions from deforestation must be additional to - and not replace - the policy of reducing emissions domestically. If it turns into a compensatory policy, there will be no chance of keeping global temperature increase within two degrees Celsius above pre-industrial levels.*

*The Norwegian funding for forests comes after many years of cooperation with indigenous peoples in Brazil, based on the recognition of indigenous rights. We expect Norway to be the guardian of rights. Rights are fundamental to achieve the goals of reduction in emissions, improvement of forest peoples' livelihoods and preservation of biodiversity.*

**Oil:** *Norway has high exports of oil and gas, and as a nation that has been profiting on high oil prices Norway has a special responsibility to play a lead role in the post-carbon development through cooperation with poor nations. So far Norway has not taken the issue of reduced exploration of oil reserves seriously. Actually, the race to the Arctic reserves already begun and the Norwegian State-controlled oil company says it is preparing itself to be able to access anywhere in the Arctic region by*

2030.

### **Brazil in the face of climate change challenges**

In the following sections, we first introduce Brazil's climate challenges, and then describe the profile of Norway's climate policies, both internal and external, aiming to 'translate' the direct and indirect produced by it, seen from a Brazilian perspective.

#### **BRAZIL**

While the international agreements and actions have started slowly, the signs of climatic disequilibrium have not been waiting. Evidence of climate changes is already confirming the hypotheses of the faith for developing countries. Brazil, due to its continental size and its 8000 km of Atlantic coastline, is highly vulnerable to the effects of global climate change. El Niño event in 1997, the Catharina hurricane (which hit the southern coast of Brazil in 2004) and the strong drought that affected the Amazon in 2005, were indications of more frequent occurrence of extreme climates.

Studies on how climate models and global warming may affect the country are not optimistic: they foresee significant changes in the rainfall regime and changes in virtually all Brazilian ecosystems, as well as impacts on water resources and agriculture. In large cities, floods and landslides are likely to be intensified. First signs of global climate changes and the effects on human health were acknowledged by the IPCC 2007 report: every year, there are 200 million cases of malaria in the world and as climate changes become more prominent, so will the incidences of malaria, dengue and other tropical diseases.

The Amazon and the Northeast of Brazil constitute two of the most vulnerable regions in South America when it comes to facing impacts of climate change, and have therefore often been referred to as "climate change hotspots". Currently, the Ministry of Environment prepares a National Plan to Combat Climate Change that will be available by the end of 2009 and reflects a political agenda focused on controlling deforestation and adaptation measures.

#### **NORWAY**

##### **1. Norwegian emissions profile and trends**

According to the Norwegian Ministry of Foreign Affairs, Norway accounts for 0.16% of the global cumulative emissions since 1990. Norway is also one of the world's top sources of oil and gas, so its 'exports of GHG emissions' sum up to 2% of global share. This is equivalent to half of Brazilian emissions, besides the striking differences in size and population of these two countries.

Differently from Norway where manufacturing industry, petroleum industry, and road traffic are the largest contributors to GHG emissions (72% in 2006), the composition of Brazil's GHG emissions is inverted: about 75% are originated from **deforestation** by the expansion of agricultural frontiers - mainly in the Amazon region, and of other inadequate land uses.

We adopt the parameter of historical emissions (thus not only current ones) as to survey the responsibility of different countries and peoples with regards to the gases accumulation in the atmosphere.

In that sense, historical responsibility is also a function of population. And it should be expanded in order to

acknowledge income and its distribution as parameters, as expressed by the Responsibility and Capacity Indicator (RCI)<sup>27</sup>. We believe that all countries must adopt goals. Notwithstanding the developing countries would have to be compensated by the fulfilment of these goals whenever it is equivalent to its historical responsibility.

Considering the total volume of emissions, Brazil must be between the current five greatest emitters, but ranking drops considerably when the current emissions are considered per capita. Norway's emissions per capita are almost 3 times that of Brazil - or five times if we consider the 2004 level (UN Stats reference).

The current emissions per capita, in Brazil, are around 5 tons/year, less than 30% of the Norwegian or OECD countries emissions per capita. National emissions from the energy system are very low indeed, in regard to population (0.5 tons of carbon per capita) but fairly high compared to economic activity (0.1 kg of carbon per US\$ of GDP).

The main difference is the industrial carbon efficiency – Brazil emits much more carbon to produce an industrial unit than Norway, a country that leads few industries (such as the oil & gas integrated sector) in terms of carbon intensity.

Brazil's recent economic growth relies on large consumption of both fossil fuels and renewable sources, with a fast increase of 40% on oil and gas demand between 1990 and 1998. If the trends observed in the nineties persist, sometime between 2010 and 2020 CO<sub>2</sub> emissions from the energy system are bound to overtake emissions from deforestation. Therefore Brazil has to “decarbonise its economy”, making a sincere effort to develop a socially and environmentally sustainable energy matrix.

Norway's emissions per capita reflect the development path based on high dependence on fossil fuels. A reduction achieved by Norway will not solve the climate crisis but the lack of emissions' reduction in Norway can have a significant demonstration effect.

Norway has financial means, international exposure, relevant and historical relations with developing and poor countries, and a big amount of emissions that can be cut.

Seen from Brazil, if not Norway, then who will be able to prove it is possible to move towards post-carbon society and to heal the world's fever?

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27 Greenhouse Development Rights (GDR) framework, by EcoEquity and Stockholm Environment Institute.

## 2. Per capita burden and Kyoto commitments

Without a significant increase in reduction targets for the period after 2012, for both developing and developed countries, there will be no chance left to contain global warming within bearable limits, and there will be no continuity to the efforts already begun in Kyoto.

The Norwegian climate policy contemplates this necessary leveraging through the promise of carbon neutrality by 2030. Nevertheless it is unclear in defining, or rather detailing, means (and a strategy) for substantial reduction.

Committing to quantitative targets - but generic ones – is not enough for this stage of international negotiations, thus some internal rule to define differentiated responsibilities and sector-specific targets is crucial on the way to Copenhagen 2009.

In addition to a broad set of domestic targets, large companies, public or private, which act in sectors that promote the greenhouse effect, should be impelled to reduce emissions resulting from its own activity and production, and should be charged in proportion to the effects that cause so as to fuel international funds and other funding mechanisms for adjustment, compensation and technology transfer.

In that sense, Norway showed in Bali that it is aware of how financial means can stimulate early action to limit and reduce deforestation activities in tropical forests.

Now Norway has an enormous opportunity to address oil and gas, mining and transport sectors, proposing global, sector-specific, verifiable commitments.

Regards current status, the country's emissions are 11% above the Kyoto target for 2010, while its neighbour Sweden was able to meet the target already by 2004.

It seems interesting that none of the documents on the Norwegian climate policy mentioned future projections on domestic energy demand. But Norwegian road traffic trends give an idea of likeliness of increasing.

We know that Norway has had carbon taxes since 1991, thus pioneering in the field of regulating industrial activity regarding CO<sub>2</sub> emissions. We applaud such measures, especially to the effect that that might have led the industry towards better carbon efficiency<sup>28</sup>. Anyhow, the petroleum sector has increased its emissions by almost 80% since 1990, and shall be the responsible for the non-achievement of reduction targets in 2010 also due to massive gas flaring. In our understanding, a political agenda should be set in order to update carbon taxes according to sector-specific performance, publicly monitored, in Norway. And this sort of principle shall be applied to global level, as mentioned before, but avoiding static rights to pollute.

Norway has to urgently assume the political responsibility, as a petrol-exporting country, to prove post-carbon societies can become a reality.

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<sup>28</sup> The Norwegian emissions of CO<sub>2</sub> increased by 19 percent from 1990 to 1999. This growth is significantly lower than the GDP growth of 35 percent. In other words, average emissions per unit GDP was reduced by 12 percent over the period.

### **3. Domestic and International actions: no separated targets but clearer commitments**

Projections from the Norwegian Government indicate that if the emissions remain on the 2010 level (higher than today and projected to be around 58.5 tons of CO<sub>2</sub> equivalent) throughout the Kyoto period, Norway will need to buy quotas for 72% of its emission.

We find it is a legitimate claim to favour early action at home over conditionality, flexible international solutions. The latter can be accepted as the short run strategic efforts combination. Notwithstanding we find it very important to define limits for market compensation, in order to give even more legitimacy to the market itself.

In our opinion, as legitimate as to resort cheap fast reductions in order to initiate and accelerate a global process to reduce emissions, is that all countries, especially those with targets to meet, start with necessary changes in their economies and be obliged to comply with a minimum - to be defined – set of actions for domestic emissions reduction.

There is no necessity to set two goals apart - one for direct reduction and another one for compensation. Countries that will be able to fulfil their domestic goals integrally will not have to be obliged to fulfil an external goal for compensation.

That is to say that we do not appreciate - nor we understand very well - the rules, or decisions, that aggravate exclusively the Clean Development Mechanism, making it less competitive than other existing mechanisms of compensation. We believe that constraints and/or taxes (as in the case of Adaptation Fund and CDM) must be applied to all mechanisms, indistinctly.

### **4. Climate and Forests**

In connection to that, we find that the Norwegian initiative to support reductions in emissions from deforestation is very innovative, opportune and meritorious. The threefold strategy, comprising multilateral schemes (UN REDD, i.e.), bilateral agreements (Brazil and Tanzania) and project-based support, is comprehensive and settled in the rights-based principles.

The Norwegian Climate and Forests Initiative allows the anticipation of early efforts ignored in the effective rules for the first period of commitment. At the same time it encourages other countries to join it or adopt similar initiatives.

Notwithstanding, we believe that it should not affect or delay the definition of regular and universal mechanisms to address the issue of tropical deforestation and conservation of tropical forests in general terms (even when not so threatened by the processes of accelerated deforestation).

It is not good that the flow of international resources for the protection of the tropical forests depend exclusively on isolated initiatives, or situations arising from favourable politic conjunctures, although they are valuable and important to stimulate more inclusive and steady construction of stable schemes for this purpose.

Policies of REDD must be additional and not replace the policy of reducing emissions. If REDD turn into a compensatory policy, then there will be no chance of keeping global temperature increase within two degrees Celsius above pre-industrial emissions.

It is important to bear in mind that Norwegian funds for forests comes after, or as a consequence, of more than 25 years of meritorious cooperation with indigenous peoples in Brazil. This paved the hard path of the recognition of indigenous rights in Brazil. Once again, we expect Norway to be the guardian of rights, as indigenous and traditional peoples are the guardian of the forests. In that sense, tracking social and environmental impacts of REDD policies is fundamental to boost reduction of emissions of greenhouse gases, improve forest peoples' livelihoods and preserve biodiversity.

The decision in Bali assumed that all possibilities for tackling deforestation would be taken, going beyond the reductionism of seeing forests as carbon stores. Thus REDD can trigger a forest-based economy that acknowledge multiple uses of forests and expand the recognition of the role of indigenous peoples in forest conservation.

Nevertheless, addressing rights within the forest and climate change agenda should not be confounded with ownership of carbon, as if new rights are to be attached in order to clear ambiguous tenureship of forest carbon. The potential of REDD and the commercialization of forest carbon to foment conflict was noted, but the consequences of this for the design and implementation of REDD were not explicitly addressed. A significant potential source of conflict is the current ambiguous tenureship of forest carbon itself, a new, unique, and loosely-defined "commodity." The value of carbon stokes fears of a land grab in tropical forests, particularly in areas where local and indigenous peoples' rights are currently poorly defined, poorly protected, or unrecognized.

Notwithstanding, as recommended by several actors gathered at the Rights, Forests and Climate Seminar, held in Oslo, in October 2008, investment in effective mitigation and adaptation to climate change in areas of forests will require the establishment of four mutually related areas: (1) strengthening of governance and rights - like establishing an equitable regulatory framework for land and natural resources; (2) prioritization of incentives to communities - in order to establish mechanisms that can ensure that positive incentives are channelled to the "right people", (3) tracking more than just the carbon - to establish transparent and easily accessible monitoring systems, and (4) guaranteeing independent audits - to establish national and international mechanisms .

## **5. Domestic issues: Norway needs to prioritize shifting from fossil to clean fuels**

Given the projected decline in global oil reserves, Norway has a critical role to play in this field, through detailing national and local strategies addressing energy production and transport technology.

Targets for the domestic oil and gas sector are not clear, thus not ambitious neither traceable. Once you have neither obligation nor target, you have no conditionality and will rely on carbon efficiency rather than tackling your old-fashioned core business. Still, carbon efficiency seems not to be resolved, as there is room for several emission-free electricity solutions for offshore oil platforms, for instance. This was not done.

Under this scenario where many actors are seeking alternatives to fossil fuels, the Brazilian government bets on the production of biofuels, also in other developing countries. Brazilian government announced that aims to raise to 2% the participation of biofuels in the national energy consumption (ISA, 2007).

Biofuels are now a very hot topic at international talks, and the Brazilian government defends that if we want to be serious about climate change, barriers from rich countries as well subsidies distortions should be removed promptly and unconditionally in order to widespread biofuels from developing countries. There are several dilemmas associated to the development model Brazil should choose, and whether biofuels contribute “unconditionally” to fight climate change. This political debate should not deviate, specially rich countries, to under-invest in the critical task of decarbonising transport sector.

Special concerns shall be attributed to the road transport sector in Norway, which is unfortunately a good example of *petroholicism*.

Norway is a small but widespread country, interlinked mainly by roads. Transportation means are plenty available in big cities such as Oslo and Bergen, but its slow inter-city transport as well as the dependence on individual vehicles is absurd.

Brazil has somehow decided in a very similar sort of road transport grid, more than one hundred years ago. The alternative for minimize damages was the adoption of biofuels by late 1970s.

Slowness is particularly visible in the case of biofuels in the transport sector in Norway.

The Norwegian Government is currently discussing which should be the national obligation for adopting biofuels in the road transport sector. The original proposal was to have 2% already in 2008 and jump to 5% in 2010. But it was reverted to 2% in 2010 and 5% later on (2012).

To what extent this will be a national obligation rather than a target? Seems there is no penalty clause associated to not complying with the obligation. Thus measures will follow, and luckily Norwegian firms will assume it as a promise not to be broken.

Norway has only 19 biofuel fueling stations, while its neighbouring country Sweden has more than 600.

There is some paralysis with regards to weaning off the fossil fuels in Norway. It is not a complete immobility. We see that there are some policies designed to trigger renewable energy production. But the pace is quite slow.

Of course, Norway’s Government doubled funds to encourage larger urban areas to improve public transport (NOK 300 million a year). This is an applaudable effort, still the country can combine other measures to reduce the total amount of transport emissions. Especially in the case that emissions from road traffic continued to increase in 2007 as a result of traffic growth.

Again, Norway has financial means and technological solutions available, more than almost all countries from the South.

## **6. Aid and cooperation in energy issues**

Shifting from fossil to clean fuels is imperative not only for citizens of rich countries, but of course for citizens in the industrialized South of Brazil and in Amazon communities. Technology transfer is a very dear issue to developing countries, and in Bali, the countries agreed to develop a strategic program

to scale investments aimed at transferring technology for adaptation and mitigation.

In fact, technology transfer is a recurring theme in international agreements. However, rarely we see concrete action by the holders of such technologies. The argument of the transfer is always used as a bargaining currency to persuade the poor and developing countries to accept proposals from rich countries and, then, it is forgotten or postponed.

Although the *Norwegian action plan for environment in development cooperation* paper indicates clear guidelines for cooperation on clean energy, little we know on small-scale technology transfer from Norway. Apparently, cooperation on renewable energy sources is extremely marginal, excluded hydroelectricity, which is not deployed in Norway anymore.

Small-scale technology comprises great opportunity for developing countries, including those who are already cooperating with Norway to reduce deforestation, like Brazil.

As an example, the provision of energy to communities living in remote areas of Brazil has been done through the installation of generators running on diesel. With the gradual increase in demand for energy by these communities, their dependence on diesel has also been growing. This, in addition to contributing (negligibly) for the increase in fossil fuel consumption and corresponding greenhouse gases emissions, commits nearly all the economic surplus these communities are able to generate through extractive activities. With the increase in oil prices and diesel, this dependence is increasing and tends to undo any comparative benefits that these communities are able to gain through sustainable activities. The provision of clean and cheap energy for indigenous and traditional communities can help, on a small scale, to the efforts of reduce emissions, but especially can contribute enormously for economic sustainability and to prove post-carbon societies can also become a reality in remote places.

## **7. Responsibility of an oil petrol exporter and the tempo of Norwegian petroleum extraction**

Norway has high exports of oil and derivatives. That has been a successful story if evaluated in terms of reaching individuals which have linked their consumption patterns to fossil fuels, especially in those poor countries with no such resources, Ethiopia for instance (80% of its export revenues are channelled to oil imports).

Petroleum activities have also contributed significantly to economic growth in Norway, and to finance the Norwegian welfare state.

As a nation that has been profiting through peaked priced imports paid also by non-oil producer poor countries, Norway should play a bold role in the post-carbon development, through large and coherent bilateral cooperation with poor nations. It means feed backing southern economies from their support to oil revenues and avoiding palliative aid support.

At this point, we acknowledge that Norwegian State's role has been instrumental in providing assistance to the oil sector in developing countries. The case of Oil for Development Program is a very inspiring one; as an example of exporting lessons learnt with regards to avoid resource curse as well as exporting good governance practices. Now it is time for sharing responsibilities and maybe using such a platform to export renewable energy technologies or even to import best practices.

Regarding Brazil, even if emissions from deforestation still represent more than the half of the Brazilian

emissions, fossil fuel burning grows in a fast pace. Although the Brazilian energy matrix is considered relatively clean, established to a large extent in hydropower, it shows a trend of worsening of the quality of the energy matrix. Moreover, Brazil already surpassed the condition of oil importer, at this moment is in a position of relative self-sufficiency, but it will pass to the condition of exporter of oil in the next years, with the discovery and exploration of new reserves. Norway is involved in private cooperation with Brazil oil sector in this new venture.

For the foreseeable future, oil industry predicts that there will be more hydrocarbons available, thanks to innovations in recovering previously uneconomic or unknown reserves. Norway has not raised the debate around issuing fewer permits for exploration of oil reserves. Actually, the race to the Arctic reserves already begun and the Norwegian State-controlled oil company says it is preparing itself to be able to access anywhere in the Arctic region by 2030.

At this moment, iconic pictures of melting ice in the Arctic are spread worldwide and scientists say the polar regions are hotter than ever.

**Summary** In climate change times, Plan A is what we need to do no matter what, using a detailed, traceable road map. Plan B is what we should do to trigger our Plan A and encourage reorientation whenever needed.

In the case of Brazil, plan A involves zero emissions from deforestation and forest degradation, therefore acknowledging the value of the forests, whereas decarbonising our energy matrix comes not only as a Plan B in terms of what we need to do, but also in terms of meeting energy demands without producing counter effects over rights, forests and therefore climate.

In the case of Norway, your plan A seems to entice other nations into international climate initiatives and agreements, leading by good examples such as the emergency mechanism to tackle deforestation in tropical countries. Norway has been playing vanguards role in environmental arenas, thus maintains itself in the forefront position at the international level. Notwithstanding, it can also be poorly evaluated in terms of curbing fossil fuel burning, as its ' historical track of broken promises' shows. (Lars, FoE 2007).

Shifting from fossil fuels to clean fuels is still absurdly timid in the road transport sector, specially in comparison to her neighbouring countries which made bigger steps towards becoming post-carbon societies. Norwegian oil and gas sector needs to move beyond carbon efficiency rhetoric and get down to the details over immediate (electrification of offshore platforms) and profound changes (like control mechanisms to oil and gas exploitation in the melting Arctic).

Over the past years, climate changed has arrived on the political map and Norway has helped to put it there.

## **Expert panel: Norwegian climate policy seen from South**

### **Background**

Rainforest Foundation Norway, Norwegian Society for Conservation of Nature (Friends of the Earth Norway), Future in our hands, WWF-Norway, The Development fund/Spire and the children's organisation "Miljøagentene" jointly organise the information campaign "Climate change as seen from the south" to highlight perspectives from the south in the Norwegian debate on climate change. The campaign is financed by the Norwegian aid agency Norad.

As part of this campaign in 2008, we will publish a report where a panel, consisting of representatives from southern countries, assess and comment the Norwegian climate policy. The assessment will be based on the most central policy documents, official information of greenhouse gas emissions and plans to reduce them. The review of documents will be supplemented by interviews (by video, skype or e-mail) with representatives from the government.

### **TERMS OF REFERENCE**

**Our aim:** To get input and views from the South into the Norwegian climate debate. The views/opinions should comment both on Norway's strategy and efforts to reduce green house gas emissions in Norway, and Norway's international climate policy. It should result in recommendations for an improved climate policy.

The views from the panel will result in a report with recommendations from the expert group. Representatives of the Norwegian government and other relevant decision makers must answer to these recommendations.

### **Mandate for the panel**

To what extent does the Norwegian climate policy reflect the recommendations of the International Panel on Climate Change (IPCC) of 50-85% reduction in the global emissions and the principles of the UN Climate Convention? Is the Norwegian climate policy based on climate justice between north and south?

### **Specific aspects**

To inform the main question formulated in the mandate, we ask the panel to comment particularly on the five aspects below. If something is unclear, or you find other approaches relevant, you are more than welcome to discuss this with us. We would like you to start your assessment with a brief (ca 1/2 page) introduction describing the expected consequences of climate change for your country, as background for your perspectives on Norwegian policy.

**These are the aspects we specifically ask you to include in your assessment:**

- 1) Norwegian greenhouse gas emissions per capita and in total compared to other countries, including your own country (based on i.e. CO<sub>2</sub> emissions from UN overview<sup>29</sup> or GHG emissions from the CAIT database<sup>30</sup>).
- 2) Norwegian emission trends compared to the Kyoto targets and the need for stronger reduction targets in a new climate agreement (including your recommendations for Norway's policy on the "road from Bali to Copenhagen" – towards a new international agreement on emission reductions).
- 3) The Norwegian official policy is to meet our obligations regarding emission reductions partly by reducing domestic emissions, and partly by financing reductions in other countries. Should there be separate targets for the two? Your view on the fact that EU has limitations on use of CDM in reaching the climate goals<sup>3</sup>. Norway has no such target.
- 4) Development aid and financing of adaptation and mitigation measures in developing countries. In addition to your views on the general Norwegian policy in this area as outlined in the attached document (White Paper and "national climate agreement") we would like you to comment on:
  - A) The Norwegian government promised at the Bali climate negotiations to spend 3 billion NOK (600 mill US\$) per year in the coming five years to reduce green house gas emissions by halting deforestation in tropical countries (see attached brief).
  - B) Challenges related to development aid for energy purposes (see attached report).
- 5) Your views on Norway's responsibilities as a big exporter of petroleum and the tempo of Norwegian petroleum extraction.

**Documents**

***The main documents we would like you to use as basis of your assessment:***

- "Basic facts on Norwegian GHG emissions", *attached*. A brief summary of basic factual information on Norwegian green house gas emissions and climate policy (compiled from official sources).
- The Norwegian White Paper on climate policy Summary in English: Report No. 34 (2006–2007) to the Storting (the Norwegian parliament). Link: [http://www.regjeringen.no/pages/2065909/PDFS/STM200620070034000EN\\_PDFS.pdf](http://www.regjeringen.no/pages/2065909/PDFS/STM200620070034000EN_PDFS.pdf)
- The government's press release on the Parliamentary climate agreement. (link: <http://www.regjeringen.no/en/dep/smk/Press-Center/Press-releases/2008/Broad-agreement-to-boost-national-climat.html?id=496872>)

***For your information we also attach:***

- Background paper on Norwegian climate policy – as seen from Norwegian NGO's
- Demands to the government from the organizations in the campaign "Climate as seen from the south".

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<sup>29</sup> [http://unstats.un.org/unsd/environment/air\\_co2\\_emissions.htm](http://unstats.un.org/unsd/environment/air_co2_emissions.htm)

<sup>30</sup> <http://cait.wri.org/login-main.php?log=7&postlogin=cait-unfccc>

<sup>3</sup> [ec.europa.eu/energy/climate\\_actions/doc/2008\\_res\\_ia\\_en.pdf](http://ec.europa.eu/energy/climate_actions/doc/2008_res_ia_en.pdf)

**Links to official statistics on emissions and reduction targets:**

Short official statistics on emissions development 1990-2007, including tables on emissions by source and sector:

[http://www.ssb.no/vis/english/subjects/01/04/10/klimagassn\\_en/art-2008-05-13-01-en.html](http://www.ssb.no/vis/english/subjects/01/04/10/klimagassn_en/art-2008-05-13-01-en.html)

Chart: Norwegian emissions 1990-2007, and Norway's assigned amount 2008-2012:

[http://www.ssb.no/english/subjects/01/04/10/klimagassn\\_en/fig-2008-05-13-01-en.gif](http://www.ssb.no/english/subjects/01/04/10/klimagassn_en/fig-2008-05-13-01-en.gif)

Chart: Norwegian emissions per source 1990-2007:

[http://www.ssb.no/english/subjects/01/04/10/klimagassn\\_en/fig-2008-05-13-01-en.gif](http://www.ssb.no/english/subjects/01/04/10/klimagassn_en/fig-2008-05-13-01-en.gif)

Chart: Norwegian emissions of ghg 1990-2007:

[http://www.ssb.no/english/subjects/01/04/10/klimagassn\\_en/fig-2008-05-13-03-en.gif](http://www.ssb.no/english/subjects/01/04/10/klimagassn_en/fig-2008-05-13-03-en.gif)

**Development policy:**

- Action Plan for Environment in Development Cooperation

<http://www.regjeringen.no/en/dep/ud/Documents/Reports-programmes-of-action-and-plans/Reports/2006/action-plan-for-environment-in-developme.html?id=440277>

**The forest and climate initiative:** Press release, published 10.12.2007

No.: 160-07: Three billion kroner towards efforts to prevent deforestation Link:

<http://www.regjeringen.no/en/dep/smk/Press-Center/Press-releases/2007/Three-billion-kroner-towards-efforts-to-.html?id=493682>

Climate change and tropical forests: <http://www.regnskog.no/html/575.htm>

**Additional information, to be used as background wherever you need it:**

Revised National Inventory Report 2007, Norway. Greenhouse Gas Emissions 1990-2005 Reported According to the UNFCCC reporting guidelines:

[http://www.sft.no/nyheter/dokumenter/nir2007\\_revised.pdf](http://www.sft.no/nyheter/dokumenter/nir2007_revised.pdf)

**WEB site on Carbon Neutral Norway (Norwegian Ministry of Finances)**

<http://www.regjeringen.no/en/dep/fin/campaign/Carbon-Neutral-Norway/Home-Carbon-Neutral-Norway.html?id=479475>

Report on Norway and Sweden: (CICERO <http://www.cicero.uio.no/media/5960.pdf> )

Norwegian statement at the UN, Climate change as a global challenge.

<http://www.norway-un.org/NorwegianStatements/Climate+change+as+a+global+challenge.htm>

## Basic facts on Norwegian GHG emissions -

### A brief introduction to Norwegian GHG emissions and reduction targets.

Norway is a small but rich country. The greenhouse gas (GHG) emissions are approximately 0,2 % of world emissions, but the per capita emissions are high compared to the world average, with 12 tons of GHG emissions per person per year-<http://globalis.gvu.unu.edu/indicator.cfm?IndicatorID=199>). In addition to the emissions emitted within Norway, which we are accountable for under the Kyoto, our activities also creates big emissions in other countries:

- Norway has a high import of goods (See more on import and generation of CO2 emissions in report from WWF Norway on import from China, [http://assets.wwf.no/downloads/wwfrapport\\_jan2008\\_norsk\\_klimaavtrykk\\_i\\_kina\\_1.pdf](http://assets.wwf.no/downloads/wwfrapport_jan2008_norsk_klimaavtrykk_i_kina_1.pdf))
- We export large amounts of petroleum: If one includes the emissions from Norwegian oil and gas export, Norway is responsible for 2% of global emissions ([www.bjerknes.uib.no/filer/536.pdf](http://www.bjerknes.uib.no/filer/536.pdf))

Norwegian emissions compared to other countries. An example: It takes an average Norwegian person 8 days to emit as much CO2 as an average person in one of the 50 poorest countries in the world (LDC) in a whole year ([http://unstats.un.org/unsd/environment/air\\_co2\\_emissions.htm](http://unstats.un.org/unsd/environment/air_co2_emissions.htm)).

In 1990 the Norwegian emissions were approximately 49,7 million tons CO2 equivalents. Norway is part of the Kyoto agreement, but was allowed an increase of GHG emissions by 1% from the 1990 level. Today's emissions are approximately 55 million tons. This is an increase of 1.5 million tonnes CO2 equivalents (2.7 per cent) from 2006, and an increase of close to 11 per cent compared to 1990. Earlier this year, the government said Norway will reduce the GHG emissions more than the Kyoto commitments: Reduction of the GHG emissions by 30% of Norway's 1990 emission level by 2020. This is a reduction in the domestic emissions to 41-43 million tons. Up to 3 million tons of this CO2 reduction can come from carbon storage in wood which means no effort is needed, as we have net growth in forests (<http://www.regjeringen.no/en/dep/md/documents-and-publications/Government-propositions-and-reports-/Reports-to-the-Storting-white-papers-2/2006-2007/report-no-34-2006-2007-to-the-storting.html?id=507152>). In the "Parliamentary climate agreement" the parties agreed on Norway being "carbon neutral" within 2030. However, the government does not say how much of this emission reductions should be implemented in Norway and how much is to be achieved by buying carbon credits (including CDM) abroad.

If a reduction to 41 million tons is reached, this means a reduction in emissions on almost 18 percent compared to 1990 level.

Norway's goal is to reduce Norway's total emission level by 30 percent compared to 1990 level. 2/3 of these reductions are supposed to be done domestically (see "Klimaforliket"). Besides emission reduction in Norway (18 %), the reduction will be done by buying CDM and through joining the European market for CO2 quotas.

**Bilateral development aid for energy purposes:**

Of the total bilateral development aid of 12,5 billion NOK in 2006, 663 million NOK was spent for energy purposes, 276 million of these to large scale hydro power. 5,4 millions was given to renewable energy sources such as solar, wind and bio. The rest of the development aid for energy was used for research, education, administration and distribution. 21 percent of the energy development aid went to the poorest countries (LDC), whereas 6 percent went to Norway’s main cooperation countries. (Source: ["Kraftig bistand": http://www.framtiden.no/200803112207/rapporter/klima/lommerusk-til-solceller.html](http://www.framtiden.no/200803112207/rapporter/klima/lommerusk-til-solceller.html))

**More information on emissions: (source:**

[http://www.ssb.no/vis/english/subjects/01/04/10/klimagassn\\_en/art-2008-05-13-01-en.html](http://www.ssb.no/vis/english/subjects/01/04/10/klimagassn_en/art-2008-05-13-01-en.html))

**GREENHOUSE GAS EMISSIONS. 1990-2007. PRELIMINARY NUMBERS. STRONG INCREASE IN GREENHOUSE GAS EMISSIONS**

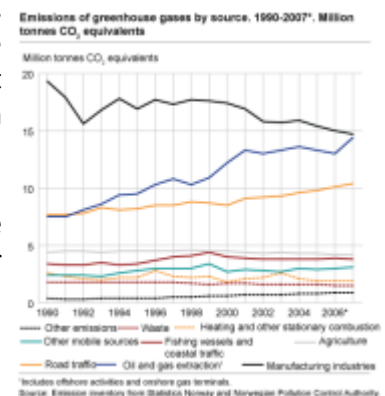
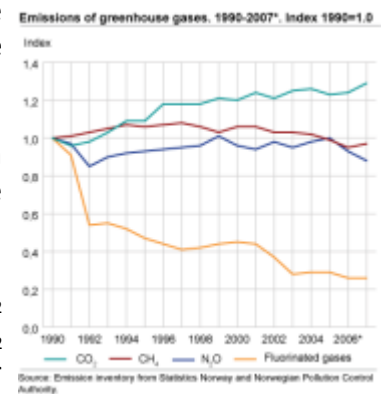
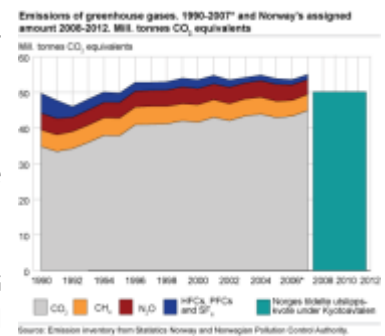
Following two years of decrease, emissions of greenhouse gases (GHG) increased by almost 3 per cent in 2007. The Norwegian emissions have never been higher.

The increase is mainly due to CO<sub>2</sub> emissions from flaring at the new LNG plant at Melkøya. Continued growth in road traffic and increased metal production also contributed to the increase in emissions, while a decrease in crude oil production and installations of new technology in the manufacturing industry partly offset the increase.

These are some of the results found in the new, preliminary emission figures produced by Statistics Norway in close cooperation with the Norwegian Pollution Control Authority.

Total Norwegian GHG emissions reached 55.0 million tonnes CO<sub>2</sub> equivalents in 2007. This is an increase of 1.5 million tonnes CO<sub>2</sub> equivalents (2.7 per cent) from 2006, and an increase of close to 11 per cent compared to 1990. Following two years of decrease in the emissions, partly due to a decline in crude oil production, the emissions were somewhat higher than in the previous peak year of 2004. The most important factor contributing to this increase was technical difficulties in the initialisation of the LNG plant at Melkøya outside Hammerfest.

The manufacturing industry, petroleum industry, and road traffic are the largest contributors to GHG emissions in Norway, accounting for 72 per cent of the total emissions in 2007.



### **Increasing emissions from petroleum industry**

Slightly more than 1.6 million tonnes CO<sub>2</sub> were emitted from Melkøya in 2007, of which the main part was due to flaring due to production difficulties. The emissions are expected to be about 1 million tonnes CO<sub>2</sub> when the production runs as planned. The emissions from other parts of the petroleum industry continued to decrease in 2007 due to lower production of crude oil. In spite of lower production, the activity at Melkøya led to an increase of almost 11 per cent in the total emissions from 2006 to 2007. The GHG emissions from the petroleum industry almost doubled from 1990 to 2007.

### **Increasing GHG emissions from road traffic**

The emissions from road traffic continued to increase in 2007 as a result of traffic growth. 10.4 million tonnes CO<sub>2</sub> equivalents were emitted from this source in 2007, a 3 per cent increase from the previous year. Road traffic accounted for 19 per cent of total Norwegian GHG emissions. When other types of transportation are included, such as domestic air traffic, domestic sea transport, and railroads, this activity accounts for around 32 per cent of the GHG emissions.

Improvements in technology and a shift from petrol to diesel vehicles have resulted in an increase in emissions that is smaller than the increase in traffic. The shift to diesel vehicles has been stimulated by the introduction of a higher non-recurring duty for petrol cars in 2007. Three out of four sold passenger cars were diesel-powered in 2007. This is a strong increase from 2006, when just above half of new passenger cars were diesel-powered.

### **New technology resulted in lower emissions from manufacturing industry**

In spite of increased activity and increased GHG emissions from metal production, total emissions from the manufacturing industry decreased from 15 million tonnes CO<sub>2</sub> equivalents in 2006 to 14.7 million tonnes CO<sub>2</sub> equivalents in 2007. This was mainly due to the emphasis on environmental technology in the chemical industry.

**CO<sub>2</sub> is still the main problem.** Greenhouse gases include the six gases covered by the Kyoto Protocol (see box): carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF<sub>6</sub>). In 2007, CO<sub>2</sub> accounted for more than 82 per cent of total GHG emissions measured by tonnes of CO<sub>2</sub> equivalents, whereas methane and nitrous oxide accounted for almost 16 per cent. Fluorinated gases accounted for slightly less than 3 per cent of the total emissions in 2007. Since 1990, the CO<sub>2</sub> emissions have increased by 29 per cent, whereas emissions of fluorinated gases have fallen by 74 per cent.

## **THE KYOTO PROTOCOL AND NORWAY'S COMMITMENT**

Industrialised countries that have ratified the Kyoto protocol have been given so-called AAU quotas (Assigned Amount Units) for the period 2008-2012. If the countries' emissions exceed the assigned amounts, they must buy quotas through the Kyoto mechanisms in order to supplement national emission reductions. This may imply buying quotas assigned to other industrialised countries or financing approved projects for emission reduction in developing countries (CDM – Clean Development Mechanism). Norway's assigned amount for the period 2008-2012 is 250.6 million tonnes CO<sub>2</sub> equivalents (1 per cent more than the 1990 emission for each year 2008-2012). In 2007, Norway's GHG emissions totalled 55.0 million tonnes CO<sub>2</sub> equivalents. Projections from the Norwegian Government indicate that Norway's emissions may rise to 58.5 million tonnes CO<sub>2</sub> equivalents in 2010 (Prognosis: Report No. 1 (2007-208) to the Storting: The National budget 2008). If the emissions remain on the 2010 level throughout the Kyoto period, Norway will need to buy quotas for 42 million tonnes CO<sub>2</sub> equivalents in the period 2008-2012.