

## **A Global Deal for a below 2°C Energy Vision**

Human activities, in particular the burning of fossil fuels are causing climate change at an alarming rate. If global average temperature is not kept below a 2 degree rise in comparison to pre-industrial levels the damage and loss to people and ecosystems will be extreme. The poor are beginning to suffer the impacts of climate change and will continue to do so unless drastic action is taken. With the economic costs of climate change estimated to represent the equivalent of the two world wars and the depression combined, the case for action is clear.

At the same time, energy demand is rising rapidly with projections for energy investments in business as usual scenarios to be in the range of \$20 trillion by 2030, and an increase of energy demand by 53% by 2030, resulting in a 55% increase in fossil CO2 emissions.

It is now crystal clear that these twin challenges of climate and energy security, if not addressed rapidly and sustainably, will make the world for many, especially the poor, unlivable. Energy security means access to stable sustainable energy services, noting that increasingly volatile oil and gas prices and concentration of resources in a few hands, are exacerbating energy insecurity and poverty.

The time for intervention to change our course is now.

Kofi Annan was right when he opened the Nairobi climate conference in November with the words, »*There is a frightening lack of leadership on climate change*«. Growing public awareness in many countries now calls for exactly this political leadership to deal with the challenge.

Opposed to the present trend of annual record growth of fossil CO2 emissions of 3%, global emissions must peak and decline in the next 10 to 15 years to ensure a reasonable chance of staying below 2 degrees with a further 50% global reduction below 1990 by mid-century.

The solutions to energy and climate security and equitable access to energy are available and well- known. Preventing the problem is always better than fixing it after it has occurred. This energy revolution provides ample opportunities for new employment in all countries. We must reduce the amount of energy we use and conserve it, while massively increasing the share of sustainable renewable energy and reducing the use of fossil fuels. Clearly for some less developed countries demand will increase in order to deliver on people's right to develop. Such a "2 degrees energy vision" will reduce the costs of energy imports, tackle local air pollution, save money and reduce the threat of climate change. The question is no longer what we need to do, it is how and where. A range of political processes exist, whether it be the G8+5, the UNFCCC and Kyoto Protocol, the governing boards of the international financial institutions or the various bi-lateral relationships which can take the decision for a way forward.

We particularly want to focus the attention of the world on the decisions made by the most powerful nations of the world – the G8+5. They are responsible for 60% of annual greenhouse gas emissions and 75% of historical fossil fuel CO2 emissions since 1850. At the Gleneagles

Summit in 2005, leaders decided to discuss a range of actions and energy and climate issues further and report back to the Japanese-hosted summit in 2008. The World Bank was asked to develop an investment framework for this process. This document failed to set a target for atmospheric concentrations of greenhouse gas emissions that would avoid dangerous climate change, and also vastly underestimated the potential for renewable energy and energy efficiency. It is simply not ambitious enough and therefore it should be rejected as the main basis for the future framework. Many of these issues will be discussed over the coming weeks prior to the German hosted G8 at Heiligendamm. The attention of the highest level of government in the largest and richest economies will therefore focus in on the twin climate and energy challenges.

**We need a new global deal that matches the scale of the crisis and responds in the size and time period in order to avoid disaster.**

The elements of that global deal, which should be agreed at the G8+5 and other relevant fora include:

**Reducing pollution**

Industrialised countries on an aggregate basis must agree to much deeper absolute mandatory targets of at least 30% below 1990 levels, by 2020 in the post-2012 climate change regime. However, due to the short time we have to stay below 2 degrees, every major economy needs to do more. Many developing countries must also, based on the principle of common but differentiated responsibilities, be ready to do more. Contributions which can be quantified in terms of their impact on emissions for these countries must also be part of the post-2012 regime, while they will have to be different in nature from current industrialized country commitments.

Heads of state should support the launch of the next round of climate negotiations, through a Bali Mandate in December 2007 to be completed in 2009.

**Getting the price right**

The price of carbon must reflect the true costs of fossil fuel, thus ensuring that sustainable lower carbon technologies are able to penetrate the market quickly and in large scale. In order to provide the financial transfer needed to developing countries, innovative carbon financing, inter alia, mechanisms should be taken into account.

Currently fossil fuels are neither priced to reflect their full costs nor are utilised in many economies without massive subsidies. As a first step, both domestic subsidies, and the use of foreign assistance to subsidise the fossil fuel industry, must be phased out immediately. Action towards these ends should be taken by national governments, the G8+5, OECD, regional bodies and the international financial institutions.

**Shifting Investments**

We need clear and reliable policies to make sure the massive investments in the energy sector in the coming decades are going into energy efficiency and renewable energy technologies. This includes »long, loud and legal« regulations for private investment as well as redirecting public

sector money, on national level as well as in international institutions. Examples of successful market regulation include: feed-in laws for renewables, the »top runner« approach excluding the most inefficient products from the market while rewarding the most efficient, environmental taxes, cap and trade emissions trading systems. Much of the revenues from environmental taxes and/or auctioning of emissions allowances as part of the post-2012 agreement should support the clean energy transition, adaptation, energy for the poor and reducing deforestation in developing countries.

## **Ensuring Efficiency**

Every study assessing the technologies available to tackle climate and energy security points to the massive potential to use energy more efficiently across the economy. It is possible, through a series of efficiency measures in every sector to decrease the energy demand, as measured against the IEA reference scenario by about 50% by 2050.

In order to reach climate protection goals as well as improve the energy efficiency of the global economy, we urge G8+5 leaders to adopt the goal of a decrease of energy intensity of the global economy by at least 2.5% per annum, which will vary widely country to country and within countries. Dynamic targets should be established in key sectors, such as :

- Building sector and energy consuming products
- Transportation sector
- Power Sector
- Industrial sector

Energy efficiency audits are a good tool to mainstream efficiency into lending practices and should be utilised as mandatory tools in all multi-lateral development banks as well as in public procurement and private financial institutions.

In addition, sectoral agreements for energy intensive industries (such as cement, steel, chemicals, aluminum, paper and pulp etc) and power production should be agreed upon in order to bring about the efficiency improvements needed. Some of the financing for these improvements in developing countries could occur through new innovative carbon market mechanisms. Sectoral targets for industrial sectors shall not replace national GHG caps for developed nations but rather complement them and help to address growing emissions from these sectors in emerging economies.

## **Scaling up Renewables**

Countries must redouble efforts to scale up safe and domestically available sustainable renewable energies. The best mechanism to do so is through the adoption of a series of targets which can then reflect the national circumstances. This set of targets, on the national and regional levels should add up to at least 25% of primary energy by 2025 and 50% by 2050 with earlier targets of 10% by 2015.

International agreements have to be initiated that fix binding low carbon and sustainability criteria for bioenergy and hydro power in order to prevent the destruction of tropical rainforests or the spreading of intensively farmed monocultures at the cost of the growing of foodstuffs and smallholder agriculture and to prevent indigenous and traditional land rights and livelihoods of the local population from being restricted.

### **Climate Change and Equitable Development – Expanding Access to Energy**

Energy inequality has risen to striking levels. Globally 1.6 billion people lack access to formal energy. People living in high-income countries consumed 21 times more modern energy per capita than people in low-income countries. In absolute figures, the number of Africans living without electricity is expected to increase from 509 million today to 650 million by 2030.

With an overarching goal of eliminating energy poverty and a recognition that this is an essential prerequisite to achieve the MDGs, the number of people without access to clean, diverse and affordable energy services should be reduced by half by 2015. This must be done using multiple supply options where decentralized renewables play a key role. The financial mechanisms discussed above need to produce at least \$100 billion in order to lift 1 billion people out of energy poverty by 2018.

Innovative financing mechanisms involving multiple actors are required. Resources must be mobilized from multiple stakeholders that include central and local governments, civil society and the private sector.

One key solution could be micro lending institutions such as the Grameen Bank, which is well positioned to provide loans and grants for sustainable clean energy to rural areas, acknowledging women as traditional energy managers in rural areas and enhancing opportunities for small and medium-sized enterprises (SMEs) to develop renewables. To achieve this goal, capacity building is essential.

The Kyoto mechanisms such as the CDM should be structured in such a manner that the benefits are equitably distributed between and within regions.

We encourage large development banks and export credit agencies to make sure their investments ensure equitable distribution of benefits on a community level such as devolving their finance to micro lenders.

### **Adaptation**

The impacts of climate change are already affecting poor and vulnerable people, communities and countries around the world. Although least responsible for climate change, they are now forced to adapt their livelihoods and development strategies to changing conditions as a result.

Sustainable energy solutions for development and poverty reduction purposes also must take account and adapt to a changing climate. Energy infrastructure plans must also be able to withstand climate impacts. This will also represent additional costs to actors in developing countries.

Overall, current levels of adaptation funding fall far below estimates of need. The World Bank has estimated costs of new development investments at \$10 to 14 billion annually and UNDP has indicated that the costs of adaptation will be far higher, at \$50 to 100 billion.

Justice requires that financing of all additional costs associated with climate adaptation be provided by countries based upon their responsibility for climate change and their capacity to assist. Further, because existing international development assistance commitments do not factor-in the costs of adaptation, new financing for adaptation must be separate and additional to ODA (although it may need to be channelled through existing institutions and mechanisms).

### **Reducing deforestation**

In order to stay below two degrees, we see the urgent need that deforestation must be reduced and halted in the next two decades. We must explore the vast options, sectorally, nationally, regionally and internationally, that exist to do this in a sustainable way appropriate for each country. Synergies with the Convention on Biological Diversity and the Convention to Combat Desertification should be explored and strengthened. An effective framework to fund reduction deforestation and degradation of tropical forests urgently needs to be developed.

### **Threats**

Due to the increasing concerns about energy security, new resources are being explored that would have massive damage locally and globally. Investments in technologies such as coal to liquids, tar sands and methane hydrates are not appropriate under any circumstances and should be halted.

Nuclear power is externalizing massive risks on current and future generations. This non-internalised risks are amounting to a huge subsidy in addition to the explicit public subsidies that continue to be handed out by governments. This must be stopped as nuclear energy is not part of the sustainable and secure energy future

In the debate about Carbon Capture and Sequestration (CCS) we insist that an open and transparent public debate among all stakeholders is a precondition for political decisions about CCS.

Business as usual is not an option. The G8+5 countries must now agree on a global political deal to tackle the challenges of climate change and reap the opportunities of an energy revolution. The world will not tolerate any further delays.

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