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The CERINA-Plan – an alternative to the Kyoto Instrument

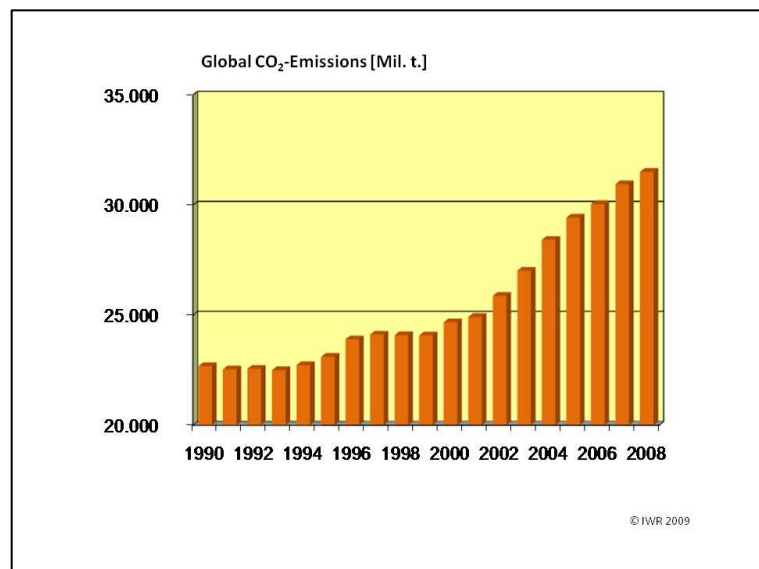
1. Introduction

The international climate change negotiations on a follow-up agreement to the Kyoto Protocol, which expires in 2012, have to a large extent become bogged down and a mutual consent in Copenhagen is currently not in sight. The core of the Kyoto-Instrument is a limitation model for the CO₂ emissions of several countries and in the ideal case the international community will settle on the limits stated under it. The CERINA-Plan (CO₂ Emissions and Renewable Investment Action Plan) is an alternative instrument as presented below, in which not limitations, but investments form the basis of the model.

2. The status quo

The global carbon dioxide emissions in 2008 rose to a new record of 31.5 billion metric tons and were 40 percent above those in 1990 (IWR 2009). The goal of the Kyoto Protocol was to cut emissions by 5.2 percent by 2012 compared to the basis year 1990 (UNFCCC 1998).

Due to the economic development in many emerging countries there has been a significant rise in global emissions. As an outcome it is becoming obvious, that the limitation model within Kyoto is not working out. This is because of the political actors, who do not want, or are not able, to accept economic restrictions for their countries required towards protecting the climate. Looking at the global competition between geographic locations, resistance in the home country against the caps or the emissions trade system leads to distrust between the political actors. In consequence only a few are willing to enter into negotiated agreements.



Seen against such a background, talks in Copenhagen will not lead to any climate treaty. Even if there were to be any agreement between the countries, it is also a completely different story whether and in what period of time the CO₂ reductions will be implemented and what the sanctions will look like, when targets are not achieved. This unsolved problem is shown by the example of the Kyoto-Protocol.

3. IWR approach – The CERINA-Plan (CO₂ Emissions and Renewable Investment Action Plan)¹

The IWR approach is to establish an investment model instead of the emission control mechanism. The principle is the link of the several countries CO₂ emissions to investments in renewable energy. The higher the CO₂ emissions, the higher the investments in renewable energy plants in each country should be. Every country is emitting CO₂, so every country has to take responsibility and to make a proportionate contribution. The global emissions growth rate is known so it is possible to back calculate the investments in renewable plants required to compensate and slowdown the emissions increase. The level of direct investment in renewable energy plants worldwide was € 120 billion in 2008 (UNEP 2009). According to

¹ More Information: www.cerina.org

IWR-calculations, the investments need to at least quadruple to approximately € 500 billion each year to stabilize global emissions.

The crucial step in the CERINA Plan is the allocation to the various countries, which is determined through the amount of CO₂ emissions in each country. The more one country emits, the higher the investments in renewable energy must be. With a total of 31.5 billion tons of global CO₂ emissions and the necessity of € 500 billion per year for renewable energy, this means a theoretical CO₂ price of € 16 per metric ton. It is possible to identify the investments required in renewable energy of each country according to their specific emissions level. The IWR has calculated the renewable investments based on their own CO₂ output for 65 countries (IWR 2009).

Model calculation

According to the CERINA-Plan, China as the biggest CO₂ emitter with 6.8 billion metric tons in 2008 would have to set a political framework to achieve € 109 billion of investment in renewable energy plants, such as wind, solar biomass or water. In India, which has 1.4 billion metric tons of CO₂ emissions, the amount of the investments lies at around € 22.5 billion, in Germany, with 860 million metric tons of CO₂, € 13.7 billion are needed. But also countries with a lower amount of CO₂ emissions have their place in the CERINA-Plan. Hungary, with 60 million metric tons of CO₂ emissions has to fulfill investment of € 1 billion, New Zealand € 600 million per year.

4. Outlook

Presumably no climate treaty will be negotiated in Copenhagen. As an alternative to the Kyoto-Instrument, the CERINA-Plan provides the opportunity of establishing a transparent and clear system to lower the emissions. The advantage of the CERINA-Model is that, due to the mechanism of linking the emissions to investments, each country has now two options to fulfill its commitments: either to curb the emissions or to enhance the investments in renewable energy technologies. Countries with a lower emission level do not need to make the amount of investments that is required of countries with higher emissions. Every country has the opportunity to choose the most feasible solution. In the end, the rising share of renewable energy or the reduction of CO₂ emissions, due to savings and consequently rising efficiency, will lead to a reduction of global emissions

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