

Climate, Scarcities and Development

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ABSTRACT *Jan Pronk reflects on his high-level political engagement on climate change underlying the principles that should inform policy today, but have not been taken up adequately in the recent UN Conference on Climate Change in Bali. He takes us through the policy responses required to counter the dire consequences of climate change that we ignore at our peril.*

KEYWORDS *uncertainties; precautionary principle; economic growth; emissions; mitigation; Kyoto Declaration*

Introduction

Having chaired the negotiations that translated the Kyoto Declaration into a fully agreed text a decade ago, I have since stepped somewhat outside of the climate change debate.¹ But from this distance I have the impression that not enough has been happening. For instance, the conflicts in Sahel, where I have been engaged, have a notable resource scarcity component. If the balance between people with cattle on the one hand, and people with fertile soil and water on the other hand had not been so drastic, given the limited carrying capacity of the land, perhaps the disaster in Darfur would have been less enormous. I forecast there will be many such disasters in Africa in the decades ahead unless we do something about it. We need to focus on the consequences of climate change. For me the IPCC report and the Al Gore movie are all inputs into the debate, but I do not want to touch on the issues they raise; instead I would like to look at the present policies and what we should do in the years ahead.

What do we know?

We start first knowing that there is an annual capacity of the Earth to absorb a number of greenhouse gases. Scientists are still debating what exactly is absorptive capacity, but there is no question there is. Secondly we have to assume that the carrying capacity will be reached soon. And it will be surpassed, indeed surpassed many times if the present trend continues. The present trend is a small annual increase of emissions in some countries, large increases of annual emissions in particular in the US and large increases in Asia and, as a consequence of economic growth and industrialization, also in Africa.

If we foster economic growth in developing countries – even if economic growth is not all that sustainable development is about, we know that economic growth is necessary for development – then carrying capacity will be surpassed very soon. And emissions of greenhouse gases will be higher than the level that could be labelled as safe or sustainable by any standard.

We also know that these consequences will be borne by people in developing countries. Finally, we know there are uncertainties: about the relation between climate change and biodiversity and between climate change and oceans; about whether climate change is a gradual process or a series of jumps. Indeed, the issue of climate change is extremely complex and solving it in a scientific way will create new uncertainties.

The road after Rio: the precautionary principle

In 1992 at the Rio de Janeiro Summit on the relation between environment and development, the world decided to base policy in the future on the precautionary principle. In my view you have to know the precautionary principle by heart: 'We will take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious and irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures... ..' (Framework Convention on Climate Change, 9 May 1992, 31 ILM 849)

The principle can be applied beyond the field of climate change when you deal with uncertainties from a political and ethical point of view.

The precautionary principle was embodied in specific international treaties. When I was Minister for the Environment in a debate on Genetically Modified Organisms, we were able, in a European context, to have the principle enshrined in the preamble of the bio-safety protocols that we negotiated in Montreal. Whether the Europeans – at the moment under a lot of pressure from the US – are still able to live up to that principle is another question. But it is a political question that citizens

and political parties have to build their policy choices on.

You know the uncertainties, but you also know the ethical principle. Then, you need a worldwide agreement to stabilize the concentration of greenhouse gases in the atmosphere, because it is a global problem. And stabilization means reduction – and not just simple reduction. We know that the reduction of emissions has to be drastic.

We have to think about a reduction of 70 percent in about 100 years, or 40–60 percent in the year 2050. Even then the concentration is 70 percent higher than in the pre-industrial period, in which there was a certain degree of – I would say – sustainability at that time, before the trend was changing.

It is quite a target because a reduction of 70 percent in a period whereby you have say 2 percent economic growth means, on a one-to-one growth and emission basis, that each year you have an accumulative increase in the gap between the calculated growth in emissions and the reduction you have agreed upon. Hence there is a huge gap between the trend and what you have to accomplish. This requires major changes in technology application and major changes in economic behaviour. The targeted reduction requires a major transformation of the world economy and a major transformation of the technologies to be applied, and all this has to start in particular with those countries that had the highest emissions in the past.

Nature of the problem

First, climate change is *the* global problem and second it is *urgent*. It does not, it cannot lead to delays. It is that urgent. Third, you have to understand that climate change is the result of past activities as well as present activities. Economists would say climate change is an *external effect* of economic behaviour. We know what that means: the consequences of such activities are not incorporated in the price and in the costs on the market itself. Climate change is *the* example of an external effect. This is the only external effect of any economic behaviour that is *global*, which is having its consequences everywhere in the world. This

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effect is mass, it is global, it is also *long run*. It is an external effect that is not taking place in the same period as the economic activity itself; it has a very long time-lag. The change in the atmosphere at this moment is the result of economic decisions on the application of technologies decades ago.

This means that it is an external effect, not of a flow variable but of a stock. Consequences for the atmosphere are consequences of the stock of greenhouse gases in the atmosphere. At present the stock is changing because of the flow of present additions, but the major consequences are consequences of the past flows that are still in the atmosphere.

The past flow and the present stock are to a very great extent the result of activities of countries in the North, of countries that had an economic, political and power advantage in the past. Therefore, it is necessary that in those countries we start to act on the basis of the principle of preferential treatment. This is a very well-known principle in international trade policies and international development policies where you give preferential treatment to countries that are behind in order to reach some equality in the future. You have to go for a global, coordinated approach because this is a problem that can never be solved by individual countries alone and, because it is so global, long-term and urgent, it is not possible to deal with it on a voluntary basis. You have to deal with it on the basis of binding policies.

So what can be done? Firstly you have to put a number of these principles in agreement so that policies can really be based upon them. These included the precautionary principle and the common and differentiated responsibility. You have to set concrete targets in relation to these principles, not vague, not qualitative; you have to be very precise because otherwise you will not meet your aims.

This is very complicated because you do not know everything and things are changing. In terms of instruments you have to be creative, flexible and innovative. You adjust yourself to new insights and new phenomena on the basis of binding law that excludes the possibility of free riders, which guarantees implementation, and includes both incentives and sanctions, so that all peoples,

countries, nations and states would see this as just, fair and equitable.

Kyoto and beyond

These were more or less the ideas underlying the negotiations. So what did Kyoto mean? Kyoto embraced an integrated approach. It accepted quantitative targets, the principle of common but differentiated responsibilities, approaches and efforts, as well as preferential treatment on the basis of common but differentiated responsibilities. The protocol spoke about mitigation in order to reach that reduction target, but in the Kyoto Protocol you also find a lot about adaptation: there will be climate change, there always has been climate change, and you have to adapt yourself to it. It is already in the Kyoto Protocol itself.

Because of climate change everybody has to mitigate and to adapt. The protocol also speaks about support for capacity building, a new element in the developmental policy because development means that you have to be sustainable and you have to be able to meet problems in the world, indeed also the problem of external threat. The Kyoto Protocol speaks about support for capacity building. There was also talk about absorption of greenhouse gases, in particular in the framework of forests.

In the Kyoto Protocol there was already talk about mitigation across borders, which meant that negotiations had to include elements of joint implementation and the clean development mechanism. Also in the protocol you will find elements of emission trading as a complement to what countries can do at home. And there were sanctions: not very harsh but fines and, what is more interesting, a relation between what you did not accomplish in the present period and the burden of mitigation which you had to take upon yourself in the next period. So you had to top up the mitigation efforts in the present period with what you did not do, and a shortfall in the earlier period could lead to exclusion from international consultations on the policies of the future.

In the beginning the elements in the protocol were very vague but the subsequent conferences of the parties laid out very detailed terms in order to arrive at a legal text without any loopholes so

that it could function as a basis of joint international policymaking.

Why was Kyoto successful?

Kyoto was successful, and that is important to state because the success of the past may also be a guideline for the future. Why was it successful? First, because at the time there was worldwide awareness of a global threat. It was replaced later by preoccupation with another global threat: security, homeland security, Al-Qaeda, etc. So nobody was speaking about climate anymore.

Secondly there was a joint political climate, leading to global coalition between politicians and experts and bureaucrats and NGOs. Everybody came together for a while and it created a dialogue among people with different insights and different interests and it created a common aim to succeed. It was short lived but it did work.

Thirdly, there was – which is important – full agreement on the process. This meant acceptance by everybody of the IPCC, which meant you had a worldwide independent secretariat, and full agreement on committee structures, on the agenda and on the step-by-step approach.

There was that joint atmosphere, and when Bush said Kyoto is dead, everybody said that is not up to you Mr. Bush because it is a multilateral process and one party cannot pronounce unilaterally that the outcome of a joint initiative is dead. We were not able to define the outcome and that helped a lot to keep the US tied to the process. It was important for the future to say it was an outcome and a process that is concrete, ambitious, integrated, equitable and efficient, both in terms of market orientation and in terms of the possibility to foster technological innovation. It is binding but at the same time it is flexible and to that extent you may say it is quite unique.

Because we agreed on a legal text at Marrakesh we achieved our rectification process and the whole thing became operational, but there was a time lag before implementation started.

So, what do we know today?

We are living in a very different world now. First, there is much higher growth in the world, in parti-

cular among very populous countries such as China, India, South Africa and Brazil, and a number of other countries have a much higher growth, increases in national income per capita and a much higher consumption per capita than we thought would be the case ten years ago. We have higher emissions than we expected ten years ago and agreed on in Kyoto. Thirdly, we know that the whole mechanism is much more complex. The uncertainties are now understood better by scientists and we know that consequences in terms of natural physical consequences are greater than were outlined ten years ago by IPCC in the early reports. Consequences for warming, extremes, biodiversity and rise in sea level are, in physical terms, greater than expected ten years ago. We know that the economic consequences of physical consequences are more complex, for instance with regard to food production, availability of water, migration streams and others. There are also more disasters.

There is an additional factor leading to greater inequality: globalization, which is in itself a major threat for stability. There is a greater potential for conflict now than ten years ago because globalization has impacted on resources, climate and environment much more heavily than we predicted. Climate change apart, there is a greater than expected shortage of fossil fuels for energy utilization. The era of low-cost energy, gas, coal and oil is over. There is not enough uranium for nuclear energy in the next decades for the world as a whole, and everybody who is betting on nuclear energy is betting on something that is not at all technologically feasible. There is also a much greater problem of energy security. Globalization means global markets and it is not at all certain that there will be enough energy for them. That also has in itself a great conflict potential. Look, for instance, at the major problems between Europe and Russia and the fact that individual countries are trying to establish their own relations with the Russians.

Is there something positive in the last ten years?

First of all, we do know more in terms of the outcome of scientific research; hence you can expect

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better policy. Technological research in private industry has taken multiple directions, so technological change could yet provide an answer. The positive decisions taken by the European Union to play an international role through target setting is broadening emission trading so that the specific mitigation targets for the year 2020 are positive.

But there remain some huge question marks. The first is the United Nations Climate Change Conference held in Bali (December 2007). Some were happy with Bali, but if you read the outcome objectively, it is not a road map; it is perhaps the start of a journey, but so far it has no direction. It was an agreement to talk, which ought to have started already. It is an appeal; nobody has promised anything, nothing is binding. There are some positive elements: there is more emphasis on adaptation than ten years ago and on the need to avoid deforestation.

The second question mark is biofuels. I share the concern that first-generation biofuels will not be sustainable, will have major consequences for water and energy use for production, and also in relation to food availability, food pricing and deforestation.

Conclusion

If I read the present political situation around climate change, countries are still just blaming

each other. They are failing to implement and I am extremely concerned that non-implementation of Kyoto creates the argument for non-Annex 1 countries to say 'no we are not participating because you failed to keep your promises'. It is not certain at all that the Kyoto target of the minus 5.2 is going to be met. There is an implementation gap. It is always 'next time, next period, not yet'. Where is the urgency? Why is there still a focus on procedures, institutions and on the financial question of who is going to pay? The power question is still determining conversations, which leads to a focus on secondary approaches in order to avoid mitigation. We have reached a situation where there is too much emphasis on, for instance, avoiding deforestation. Too much emphasis on adaptation, which is taking attention away from necessary mitigation and wrongly leading to compensation tactics. Hence rich people fly and pay a couple of dollars extra in order to compensate for some trees somewhere, and then later on they will be cut. It is lip service. There needs to be more emphasis on a core approach to mitigation. All other approaches will not do the job. The attention to biofuels is an example of this. It is necessary to think about long-term targets of equal emissions per capita, of all inhabitants, of all countries in the long run. Without taking such a path we are asking for a major disaster.

Note

- 1 This article is based on the speech 'Climate, Scarcities and Development' given by Jan Pronk on 17 March 2008 at the SID Netherlands Chapter Lecture Series 2007–2008 on 'Energy, Water, and Food: Global Scarcities and Power Shifts – a new world map for international cooperation'. <http://www.sid-nl.org/index.php?a=lectures> (accessed on 21 May, 2008).