”Barriers to change”

– comments by Anders Wijkman,
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More than twenty years after the signing of the climate convention, GHG emissions increase faster than ever before. According to the latest IPCC Report - the 5th AR - published in September this year, we are on track for a 3-4° C degree warming. If this emission path would continue the consequences would be catastrophic. ”Another planet”, in the words of climate scientist Jim Hansen.

What are the main reasons that we have such difficulties in curbing emissions? What are the main barriers to change?

In the time alotted I will only be able to scratch on the surface. The questions posed are enormously complex; there are many possible entrypoints. Let me share a few of my impressions:

1. The North/South divide. We don´t talk much about it. But the fact is that here we find one of the most fundamental reasons there are such difficulties to move climate talks forward. Developing countries rightly critisize industrial countries for not doing more – both in terms of emissions reductions and in terms of supporting the efforts by developing countries to invest in low-carbon technologies as well as in climate adaptation. The whole issue of historic emissions is something industrialised countries refrain from discussing. **Yet, without addressing the ethical dimension – both in terms of historic emissions and the rights of future generations – I cannot see climate talks moving forward more than marginally.** This issue is no doubt something for the social sciences to explore.

2. The tensions between North and South around finance has led to a situation where climate discussions can be characterized as somewhat of a trench war. Governments wait for each other´s moves, instead of helping each other jointly to move forward. The principle of national sovereignty – and ”what´s in it for us” – is far more important than the interest of the whole. This is a major problem: Nobody speaks on behalf of the climate and nobody speaks on behalf of future generations. The UN system was established in another world, with totally different problems. So at the core of the difficulties moving forward is the **failure of global governance.** Present-day institutions are not up to the task. The big problem, probably impossible to resolve without a major crisis, is HOW to reform these institutions?!

3. The short termism of both politics and markets. Politicians think about the next election while CEO:s of major companies think about the next quarterly reports. The

combination of the two is a major obstacle to long term thinking. Add to that the way most calculations are made. **Through discounting of future values anything happening 10-15 years into the future has little significance.** The higher the discounting rate, the less important the future is. It is a mystery to me that leading economists, with few exceptions, pay so little attention to this crucial issue.

4. The way the political system works. For centuries the work of legislators did only make up a few months of the year. Members could keep their professional jobs, and bring a lot of experience to bear. Nowadays it has become a career of its own. Many legislators keep their positions for decades. I think this accentuates the short-termism since the focus of most parliamentarians is primarily on one thing only - **being reelected** - and thereby refraining from messages that could be interpreted as tough or difficult for the electorate. One way of dealing with it would be to limit the number of times a legislator can be re-elected.

5. Another crucial issue is **the influence of big money in politics.** The US is no doubt the worst example, but this phenomenon is spreading around the globe. Friends in Washington DC tells me the main reason behind the fact that it has been impossible to reach a decision on energy and climate policy in Congress is the high dependence of most legislators on fossil fuel-based industries.

6. Furthermore, **the way politicians are recruited leaves a lot to be desired.** Very few legislators have a background in natural sciences. To comprehend climate change and all the other problems in relation to sustainable development – like ecosystem decline, pollution and resource depletion - requires a minimum of understanding of natural sciences. And since there are few, if anyone at all, among their peers that have this background, most legislators are more or less left on their own. Many of them are probably surrounded by neoclassical economists – who tend to belittle most of the

sustainability challenges – and this leads to a working environment where, regretful as it is, very serious messages from the scientific community – whether we talk about IPCC or various studies on the threat to vital ecosystems - tend to be watered down.

7. To summarize. **The governance system is in dire need of reform;** both with regard to the institutional set up – primarily at the international level – and the way the political parties and their candidates are organised, recruited, financed and for how long parliamentary seats can be occupied. Here is a fascinating, albeit difficult, agenda for the social sciences!

8. The short term nature of both markets and politics – as well as the ”what´s in it for me” character of most discussions - makes it extremely difficult to gain support for applying both the precautionary and the polutter pay´s principles. In the globalized economy every nation is extremely fearful of losing out in terms of competitiveness and is therefore reluctant to introduce

carbon taxes and/or other levies. Such initiatives would aim at correcting market prices and thus curbing emissions and help clean technology to make progress. **But ”carbon leakage” is a perception dominating most governments as well as parliaments.** Here I believe research by economists could help demonstrate that ”carbon leakage” is exaggerated as a problem and that bussineses located in nations who take early action to incentivize resource efficiency and pollution control normally come out much stronger in terms of competition.

9. Another problem has to do with the way conventional growth is perceived. Instead of accepting the growth dilemma – i e that continued conventional growth will not be possible over the long term from the point of view of the environment, and, at the same time, that degrowth is not stable from a social and economic point of view - most politicians tend to dodge the issue. For them conventional growth is the only way forward. Some of them refer to ”decoupling” as a way out of the dilemma.

But decoupling in absolute terms is not happening. What we have experienced is relative decoupling, but the gains are most often eaten up by a growing economy and by the rebound effect.
What we need is an honest debate about growth and the prerequisites for growth. It is obvious that we cannot stop growing from one day till the other. The ramifications would be very serious, as we can see in the case of Greece and Italy right now.
But we cannot go on as before. **We need something of a steady-state economy – where we break the increase in the throughput of energy and materials;** first and foremost in the industrialised countries, thus providing an example for billions of people in the developing countries that welfare and wellbeing can be achieved differently than in the past. We have ample evidence - like Factor 5 by Ernst von Weizsaecker, the Blue Economy bu Gunter Pauli, Towards the Circular Economy by the Ellen McArthur Foundation, the Perfprmance Economy by Walter Stahel and, as well, my own book

together with Johan Rockström, Bankrupting Nature. In all these books and reports a diffent way to organixe the economy is laid out, all of them emphasizing doing more with less and, on top of it, adding jobs.
True, developing countries will have to grow their material throughput for decades. I saw a figure the other day that 60 % of the cities in 2050 have not been built yet. But if the infrastructure is developed in a much more reosource-efficient way – like being proposed in the books I mentioned - than hitherto, there is a chance to avoid runaway climate change and ecosystem collapse. If apartment houses and dwellings are built as passive houses instead of requiring 200 kwh per m2 the resulting energy demand and hence CO2 emissions will be radically lower. Just as an example.

10. The role played by economists deserve special attention. It is dangerous to generalize, but my experience is that most conventional economists have either beenabsent from the climate change debate

or been among those forces who have a tendency to belittle the problems we are facing. One example is the American economist William Nordhaus who some years ago claimed that any difficulties for farming because of climate change would be a limited problem since agriculture stands for such a minor portion of GDP. **While neoclassical theory provides some tools to adress problems like climate change and ecosystem decline – such as addressing externalities through taxes or levies – there are several issues and problems where conventional economics have little to offer.** One has to do with the valuing of natural capital and ecosystem services. In today´s world nature only has a value as commodities in the market. Another is the notion that different types of resources can be easily substituted for. As if financial capital could compensate for the loss of natural capital? But we cannot eat money. This is a major shortcoming of conventional economics. So a challenge for the social sciences, in my opinion, will be to oblige neoclassical economists to rethink some of their

postulates and to embrace some of the proposals by ecological economists. If this does not happen I see little prospects for moving society in the direction of sustainability.

11. One additional comment – and, indeed, an important one – is related to the way science and education is organized. Specialization is of great importance, but to understand how things are interconnected is just as important. Here I believe we have a serious problem today. **There is far too little efforts to study the whole and to build bridges between disciplines.** The gap between the natural sciences and the social sciences on issues like climate change and sustainability is a case in point. To adress this issue will require a lot of soul-searching within the scientific community.

12. So far I have mainly focussed on the macro side of the problem – the North/South tensions as well as the shortcomings of both the market and political systems. If we move to the level of individuals, other

problems and shortcomings come to the fore. Why are people not more concerned?

There are no easy answers. To start with, climate change is difficult to comprehend. For most people it is distant both in time and geography. No wonder many people don´t link their driving a car today to a warmer climate in the Sahel, and hence more difficult conditions to grow food, decades from now. Here I believe the social sciences could play a more proactive role in helping us make visible what the thretas are, what the risks are.
As long as climate change is not perceived as a problem of high relevance to Main street, most politicians will not give priority to it. In most countries the jobs agenda is perceived as much more important as compared to climate change. So the question is: **How can we link the jobs agenda to the climate change and sustainability agenda?** Here again I see an important role for the social sciences.

13. Another problem is that climate change has

been presented as **black or white**: either you believe in it or you don´t. Climate scientists on one side and deniers on the other. A much more accurate way of describing the problem would be as one of managing a set of risks. Noone knows exactly what the increase in GHG emissions – and the resulting feed back mechanisms on the planet – will result in. Climate sensitivity can be larger than anticipated, but it can also be smaller. But one thing is clear, there is a risk panorama that no climate sceptic can dismiss. And when we face serious risks in society, the logic most often is to take precaution. The insurance industry is a reflection of that.

What is really missing in soceity – and here the social sciences could play an important role – is an informed risk discussion. If such a discussion would prevail, I am positive that some of the barriers to change would lessen. If people understood e g that there is a 5-10 percent probability that the increase in the average temperature - as a result of no further action to curb emissions - could be 6° C they would most probably be more ready to take action.

14. Yet another problem has to with people´s perceptions. Some recent research at Yale by Dan Kahan is of particular interest. Kahan interviewed more than one thousand Americans to try to understand why so many of them don´t seem to listen to climate science. What he found was that roughly 1/3 of the persons he interviewed had developed a view of the world where a free enterprise system, with as little involvement of government as possible, was the ideal societal model. Consequently, when climate scientists come to the fore arguing for things like carbon taxes, emission standards, investments in renewable energy and the like these people simply stop paying attention. The message is too far away from their world view. Kahan concludes by saying ”**Don´t you think these people will change their mind by just throwing more facts on them”.**
    Here is a challenge, not least for behavioral seciences. How do we communicate the importance of climate change mitigation with the kind of people in Kahan´s study?

15. To sum up. There are many barriers to change. I have only touched upon some of the many issues that ought to be addressed in discussions on climate change and the role of the social sciences in the necessary transition to a sustainable society. After having talked to Hans vad der Loo, I know he will voice different concerns. I hope the issues raised by us will stimulate debate and help the workshop to focus on issues of relevance and, ultimately, help to shape and strengthen the overall debate on climate change.