

## Smart Solutions for a Better World

SOFW J.: Dr. Lomborg, the attendees of CESIO 2013 look forward to a motivating opening ceremony. Would you already let us in on some issues of your speech, at this time?

B. Lomberg: Certainly, I can give you some hints. The way I see it, the whole conference is about making a trend, and what I'm going to talk about is how things are actually getting better in general. The typical way we solve problems in the world could found innovations in technology. Hence, what you will face in the future is a world that is richer, better educated and it's a world that basically will be demanding a lot of amazing new technological innovations.

In the Copenhagen Consensus 2012 project you tell about how to spend 75 million dollars most effectively for human welfare. Foremost, this is a political issue but, in your opinion, where are the challenges and the responsibilities for global companies?

Well, let me answer in two parts. You are absolutely right – at the end of the day when we decide on expenses, money is a political issue. But clearly, it needs to be informed by economics and science. And what I try to bring to the table is a sense of "where can you actually do the most good". There are typically lots and lots of problems on the planet. There are also lots and lots of solutions but they are not equally factored. Some of these solutions cost a lot and do fairly little good, whereas others cost little and do a lot of good. The huge economics can be a way

n approach to doing good for the world, based on cost-effectiveness considerations – for some people this means a contradiction in terms, for others it is a possible tool for shifting the switches for present and future scenarios. In every case, *Bjørn Lomborg*, the Director of the

Copenhagen Consensus Center and adjunct Professor at Copenhagen



Business School will give rise to lively debates with his key-note lecture in Barcelona. Interested attendees of CESIO 2013 can find some extracts of his general ideas in this interview. The author of »The Skeptical Environmentalist« and »Cool It: The Skeptical Environmentalist's Guide to Global Warming« also gave his view on the challenges for the chemical industry.

to find the places, where we can do the most good for the least money – first. And if we can present that to democracy – some political leaders around the world, chances are we would be better able to do more good for the money that we spend on helping the world. So the simple answer to the question »where should we spend our money« depends on where are the smart efficient solutions«.

Could you give an example for your approach?

It turns out that possibly the most important thing that we do for the future is to make sure we get better nutrition in the world. Remember, if we could get nutrition to kids, it would not just mean that they would not be starving, but it would also mean that they would become much more attentive in school, that they would stay longer in school and learn more. It has turned out, that children from poor families who just got better food than others make twice as much money when they are adults! Thus, they would generate much more value to the society. Nutrition is not as sexy, is not something that we focus on a lot, but it just helps us to actually do an enormous amount of good for the world. Now, this is one of those cases where the approach that I am following, »the most bang for the buck« – as the Americans say – helps us make better decisions.

So, this approach that you should be asking where do you do the most good for the world« is not to say what are the biggest problems«, but what are the best solutions«. Obviously this is also something that is crucial for global compa-

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nies. We need to make sure that the work you do is social responsible and not to have critic pictures for your annual report. It is very much about doing what really gives a lot of "bang", what really sells a lot of good to the world for your money, rather than just what makes you feel good.

Another example: We could have solar panels in third world's hotness to reduce global warming – just nice! – but it doesn't do much good at fairly high costs, whereas we neglect cheap and simple solutions like governments making sure that kids get adequately fed.

In many publications you point out that the effects of carbon reduction are overemphasized. The chemical industry is making great efforts to minimize the carbon footprint along the supply chain. How would you assess these efforts and would you suggest any alternatives?

Well, there are a number of things we need to make clear:

Global warming is a real issue that we need to tackle, but the problem is: as long as we try to do this with inefficient, subsidized technologies like the German solar panels, we end up spending a lot of money doing only little good. It is estimated that by now the German solar panels have probably cost about a hundred and eighty billion dollars. The net effect of these solar panels will be to postpone global warming at the end of the century by 23 hours! So, I am simply pointing out: spending a hundred and eighty billion dollars on diminishing global temperature that can't possibly be measured, even in a hundred years, is not a very effective way to help the world. So, when it comes down to what the chemical industry does - sure - if you can reduce your carbon emissions very cheaply, you should definitely do so. Estimates indicate that the net damage of CO<sub>2</sub> is about five dollars per ton. If you can reduce your emission for one dollar, it's a good deal, and you should definitely do that. Unfortunately, often the costs are much higher. But chemical companies have so much to help the world with, most obviously with fertilizers and oth-



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er technological innovations that help farmers around the world make sure that fruit prizes can remain low and that people can get well – that's it. This should not mean that carbon cut can't be a good idea, but probably, on average there are other things where you could do much more good for the same amount of money.

Climate engineering is one of your favourite issues – what are the tasks you see coming up for the global industry in this connection?

Again there are two parts to this answer: One is to recognize the arguments that we should do something about global warming - also if we worry that there is a tiny chance, but nevertheless a real chance, that things could go very wrong; that, for instance, Greenland suddenly starts melting and we would see much higher sea level rises. If we want to map out an effective strategy for the near term, we have to realize that it can't be about cutting carbon emissions. Even if we assume a bad outcome, which is quite unlikely to happen, it is not sure that it can be prevented by cutting carbon emissions.

In the short term, we should explore the potentials of geoengineering. We need to look for potential immediate measures that could shield a little from the solar radiation and keep temperatures at a reasonable level.

There is definitely a possibility. I know that some people have been working on putting sulphur particulates into the stratosphere, which is quite a natural mechanism. For instance, we know that Mount Pinatubo, which erupted in 1991 in the Philippines, lowered global temperatures about half a degree for two years. So, clearly we know something that can be done. Let me continue this example: we could make more effective particulates, because sulphur particulates are pretty heavy and they don't reflect sun all that well. Hence they're expensive to get up in the stratosphere and they fall out pretty quickly, so that we should find more reflective particulates that would be lighter. That is definitely something that the chemical industry could help along with. Generally, it is simply again about innovation, about finding effective and cheap ways we could potentially use.

That doesn't mean we should go out and do this next year – that is not the point. But we need the research so that we know whether we can do it, how much it will cost and what potential side effects could occur. So we are prepared, we have the solutions, if we will need them – hopefully, we won't.

Thank you for this interview, we look forward to hearing more to these issues at CESIO 2013.

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