The Laws of Nature – and the Laws of Civilization

Your Highnesses, Your Excellencies, Ladies and Gentlemen!

If decision makers wish to adopt evidence-based strategies, they must not ignore the evidence...

That is why I am most grateful to the hosts of this event for giving me the opportunity to provide you with several crucial scientific insights regarding the climate-change challenge. As you all know, the former US Vice President Al Gore disseminated in 2006 the famous narrative about an "Inconvenient Climate Truth". Only two years later, a dubious counter-narrative started to spread, propelled by an alliance of actors interested in the vindication of *inaction* with respect to climate stabilization. This story revolves around three "Convenient Untruths".

The first one of these reads: "There is no global warming caused by mankind."

What is the concrete evidence? Well, among the 13,950 peer-reviewed papers on the subject which were published between 1991 and 2012, only 24 do not confirm that there is a major anthropogenic greenhouse effect. In other numbers, the expert information identifying mankind as the primary cause of contemporary climate change outweighs the contradicting one by a ratio of

99.87 %: 0.17 %.

This is as far as objective research can get: only a lie could boast a 100 % consensus...

Conclusion: Climate physics offers no excuse for inaction.

The second convenient untruth maintains: "Breaching the 2°C line will cause no significant harm."

What is the evidence? Well, a recent flagship report of the World Bank portrays the dire consequences of our planet warming by 4°C or more. The Potsdam Institute was heavily involved in this integrated state-of-the-art assessment, and even we, the researchers, were shocked by our findings. One crucial insight is that there will be no sound economic and social development in the tropics and subtropics in a world without climate protection.

Expressed in simple numbers again, the thermal difference between

4°C and 2°C

might translate into the cultural difference between a failing and a stable global society, between a fair and peaceful planet and a world torn apart by climate injustice and the thence-triggered aggressions.

Conclusion: Moral philosophy offers no excuse for inaction.

The third convenient untruth is the most vicious one and goes like this: "It's too late for climate stabilization at an appropriate level."

Various arguments – often rather bizarre ones – are put forward to underpin that declaration of environmental defeat. One prominent line of reasoning refers to the ratio

1:193.

These numbers reflect the fact that 194 sovereign nations are negotiating here in Doha an international agreement under the UN Framework Convention on Climate Change, and the cynics ask, why should one single nation make a constructive step forward if the other 193 drag their feet? Because of this ongoing global "prisoner's dilemma", we have already passed the climatic point of no return, they say.

What is the evidence? Well, as the latest scrupulous analysis shows, the 2°C line can still be held if every country makes an ambitious, yet realistic contribution. It goes without saying that disengagement will not save the world. This simple insight can be expressed in a sentence that rephrases the legendary admonishment by John F. Kennedy:

"Don't ask what global climate protection can do for your country; rather ask what your country can do for global climate protection!"

And there are indeed many nations that pioneer the transition to sustainability or try to break the mould of business-as-usual. Let me mention just two of them:

Germany, my home country, has embarked on a bold journey that will make renewable energy and resource efficiency the basis of its entire economy. And Qatar, the host of COP18, has started now to massively invest into climate-smart agriculture relying on solar desalination of sea water. These thriving nations move forward not in order to reduce, but to enhance their prosperity.

Conclusion: Political economy offers no excuse for inaction.

Let me approach my bottom line now. As a physicist my work is guided by the laws of nature. Extending these laws into the realm of civilization for the sake of climate protection I can state the following principles.

The 1st Law of Capitalism: Don't kill your customers!

The 1st Law of Socialism: Don't kill your comrades!

And, overriding everything else:

The 1st Law of Humanity: Don't kill your children!

Our generations will be judged by these laws in history. Please keep that in mind in whatever you do – here in Doha and at home.