

Winter School
Limits to Growth Revisited
Welcome Address

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Saturday, 24th November 2012, Visselhövede

Dear Participants of the Winter School,

It is my great pleasure to welcome you to this Volkswagen Foundation Winter School in Visselhövede on „Limits to Growth Revisited“. I am very grateful that you have come here because you are curious and because you are concerned. 40 years ago, a team of researchers (not much older than most of you are) discussed similar problems.

We have to use an imaginary time warp to see what has happened so far: In the beginning, there was a book, a book with a gentle, somewhat novelistic title, that made the whole world go into a frenzy in 1962, the very same year in which the Volkswagen foundation was established. It was entitled Silent Spring. It was not a novel, but a meticulously researched study. For the first time, an American biologist – her name was Rachel Carson (1907-1964) – wrote a book about the effects of unrestrained pesticide use. She described the shocking effects of how pesticides can damage genetic material and can cause cancer, about pesticides that not only destroy the so-called pests, but are a threat to song birds or pets, too.

Carson's book certainly has not changed “the course of history”, as Al Gore wrote in his preface to a new edition. And yet it was the first bestseller of the international environmental movement - which at that time did not exist.

The sixties were a time of unlimited industrial progress. There was little critical reflection on the gradual destruction of the environment.

Warnings – like Rachel Carson's book - were not taken seriously. She was categorized as an "enemy of progress", and her book as "unscientific." However, more and more people became concerned because they noticed that the poisoning of the soil, the pollution of the air, the lakes, rivers, and the sea increased.

Scientists and public persons stepped forward first. Among them was the Italian industrialist Aurelio Peccei, a member of the corporate management of Fiat. In 1968, in Rome, on the edge of a conference, Peccei met with the Director for Science, Technology and Education at the OECD, the Scotsman Alexander King. They were convinced that the rapid economic and technological progress would lead to disaster if nobody asked for the price that this progress would cost. This was the moment the Club of Rome was founded. Their first project, launched in 1970, was called „The Predicament of Mankind“: a quest for structured responses to world-wide problems. They wanted to "identify complexities and uncertainties, as well as the existing global imbalances with special consideration of the future development and the dominant world affairs (...)"- in fact, most vague.

But who should take on the task? It was Professor Jay W. Forrester of the Massachusetts Institute of Technology who, a few years earlier, had developed a cybernetic model that could simulate complex, dynamic developments.

Only the money was missing. An independent foundation in Germany was risktaking enough to grant nearly one million dollars (a very, very large sum at the time): the Volkswagen Foundation in Hanover.

The actual work was done by a student Forrester had: Dennis Meadows by then not yet thirty. Meadows and 17 other researchers from different disciplines and nationalities, among them his late wife Donella Meadows, identified five significant developments with global consequences: the accelerated industrialization, exploitation of resources, the destruction of the habitat, the population explosion, and global malnutrition.

But what made their report a sensation? The study shocked with the hypothesis that the earth and its population would overstep the limits to growth within the next hundred years, i.e. by 2100, if the uncontrolled industrialization would not be stopped. Their conclusion was: A process of rethinking is necessary. Growth restriction was the magic word. So-called "technological measures" like the reuse of waste, pollution control, and to extend the life of capital goods were important but society and the rethinking of people's behavior about restructuring of politics and of industrial production was necessary, too.

Their conclusions were startling: If the exploitation of natural resources continued, if the industry and pollution would grow and the world's population expanded, a collapse would be inevitable, and even before the year 2100 there would be several crises and famines. And they were right.

At present, we still have sufficient oil reserves for the next 40 years. One may sit back worry - if you have nerves of steel. That nuclear power could be no real alternative became clear as the Chernobyl disaster caused a lot of fear not only in Europe. But it needed Fukushima for politicians to act.

How does society work? What can be done from a technical perspective? Which policies are needed? Can new models calculate our performance in the years to come?

The forecasts by Dennis Meadows and his team of researchers have yet to be fulfilled or to be reconsidered. I am very keen on your thoughts and visions, on your ideas and experiences. And I encourage you most warmly to make use of this network of some 60 bright researchers from all over the world to exchange ideas, bring fourth new hypotheses, and challenge the experts and Dennis Meadows himself during the conference to develop new solutions for the world of tomorrow.

Make the most of it!