

Preface

The contents of this book refer to the workshop on “Sustainable Risk Management: How to manage risks in a sensible and responsible manner?” held in Feldafing at Lake Starnberg on April 14–16, 2016. Forty scientists, entrepreneurs, administrators and politicians gathered at the International Training Centre operated by the German Association for International Cooperation (GIZ). The workshop was organized by the Institute for Earth System Preservation (IESP) in cooperation with the Emeriti of Excellence of the Technical University of Munich and the Institute for Sustainability Studies (IASS) at Potsdam, Germany. IESP is a non-profit organization of the European Academy of Sciences and Arts: headquartered in Salzburg, Austria.

The topic of the workshop was chosen in response to the uncertainties that often render decision-making a very challenging task at any level of our societies. This is certainly not a new phenomenon. But the risk of taking a wrong decision has gained particular importance due to the rapidly increasing complexity of almost all aspects of our contemporary world. Guidance based on well-founded science is needed to keep our societies and economies on a balanced track towards a state of resilience and sustainability.

A good example of the need to address the theme of sustainable risk management are the conflicts around attempts to solve the problems of health, energy generation, and food and water supply, as well as problems involved in digitalization, big data management and robotics. The sometimes hysterical blind-faith rejection of innovations in agriculture, pharmacology and medicine is to be replaced by responsible information transfer prior to and during technology development. Likewise, robotics is sometimes damned as putting people under tutelage, while the same people excitingly embrace novel methods of internet communication and autonomous driving.

In awareness of humanity’s responsibility for the preservation of creation, and based on consolidated knowledge of causes and effects, the workshop was intended to delineate ways that lead to a strengthening of the willingness of decision makers and their concerned populations to overcome unwarranted fears and to elaborate policies based on scientific evidence.

To this end, four focus areas were chosen for in-depth discussions:

1. The scientific basis of risk management.
2. Risk management in the area of environmental and ecological policy.
3. Risk management in radiation medicine.
4. Risk management in the context of digitalization and robotics.

The recommendations derived from the discourses are summarized and elaborated by the authors of the book which you are holding in your hands.

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