

LITERATURE

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OECD Environmental Outlook to 2050. The Consequences of Inaction. Organisation for Economic Co-operation and Development, 2012, Paris, 349 p.

This book provides a detailed analyses of main economic, social and environmental trends for the world to 2050, and simulations of policy actions to address the key future challenges. Obviously humankind has witnessed unprecedented growth and prosperity in the last four decades, with the size of the world economy more than tripling and population increasing by over 3 billion people since 1970. This tremendous economic and population growth, however, has been accompanied by serious environmental degradation and natural resource depletion. The current growth model and the unsustainable use of natural resources could ultimately undermine future human development.

The authors of this *Outlook* ask “What will the next four decades bring for the world?” Based on joint modelling by the OECD and the NEAA (Netherlands Environmental Assessment Agency) it looks forward to the year 2050 to find out what demographic and economic trends might affect the environment if the mankind does not adopt more ambi-

tious green policies and technologies. It also looks at what policies could change that picture for the better future of the next generations. This publication focuses on four areas: climate change, biodiversity, water and health impacts of pollution. These key environmental challenges were identified by the previous outlook to 2030 (OECD, 2008) as *Red Light issues* requiring urgent attention and decisive actions.

By 2050, the Earth’s population is expected to increase from 7 billion to over 9 billion and the world economy is projected to nearly quadruple, with growing demand for energy and natural resources. Average GDP growth rates are projected to slow in China and India.

Nearly 70% of the world population is projected to be urban residents in 40 years time, magnifying challenges such as air pollution, transport congestion, and waste management. A



world economy four times larger than today is projected to use 80% more energy in 2050. Without more effective policies, the share of fossil energy in the global energy mix will still remain at about 85%. The emerging economies of the BRIICS states (Brazil, Russia, India, Indonesia, China and South Africa) are projected to become major energy users.

More disruptive climate change is likely to be locked in, with global greenhouse gas (GHG) emissions projected to increase by 50%, primarily due to a 70% growth in energy-related CO₂ emissions. (As a result, the global average temperature increase is projected to be 3°C to 6°C higher by the end of the century, exceeding the internationally agreed goal of limiting it to 2°C above pre-industrial levels. Surpassing the 2°C threshold would alter precipitation patterns, increase glacier and permafrost melt, drive sea-level rise, and worsen the intensity and frequency of extreme weather events. This will hamper the ability of people and ecosystems to adapt to increasing extreme situations.

Biodiversity loss is projected to continue, especially in Asia, Europe and Southern Africa. Globally, terrestrial biodiversity (measured as mean species abundance – or MSA – an indicator of the intactness of a natural ecosystem) is projected to decrease a further 10% by 2050. Primary forests, which are rich in biodiversity, are projected to shrink in area by 13%. The main pressures driving biodiversity loss include land-use change (e.g. agriculture), the expansion of commercial forestry, infrastructure development, urban sprawl, human encroachment and fragmentation of natural habitats, as well as pollution and climate change.

Freshwater resources availability will be further strained, with 2.3 billion more people than today (in total over 40% of the global population) projected to be living in river basins experiencing severe water scarcity, especially in North and South Africa, and South and Central Asia.

Global water demand is projected to increase by some 55%. Groundwater depletion may become the greatest threat to agriculture and urban water supplies in several regions. Nutrient pollution from urban wastewater and agriculture is projected to worsen in most regions, intensifying eutrophication and damaging aquatic biodiversity. The Millennium Development Goals for sanitation will not be met by 2015; by 2050 1.4 billion people are projected to live still without access to basic sanitation facilities.

Air pollution is set to become the world's top environmental cause of premature mortality under this scenario. Air pollution concentrations in some cities, particularly in Asia, already far exceed World Health Organization safe levels. By 2050, the number of premature deaths from exposure to particulate matter is projected to more than double to reach 3.6 million a year globally, with most deaths occurring in China and India. The burden of disease related to exposure to hazardous chemicals is significant worldwide, but more severe in non-OECD countries where chemical safety measures are still insufficient.

These *Baseline projections* highlight the need for urgent action today to change the course of our future development. Natural systems have "tipping points" beyond which damaging change becomes irreversible (e.g. species loss, climate change, groundwater depletion, land degradation).

Acting now is environmentally *and* economically rational. Well-designed policies can reverse the trends projected in the *Outlook Baseline* scenario. Making reform happen will depend on political leadership and widespread public support that changes are both necessary and affordable. Not all of the solutions will be cheap, which is why seeking out the most cost-effective among them is so important. A key task is to improve understanding of the challenges and trade-offs that need to be made.

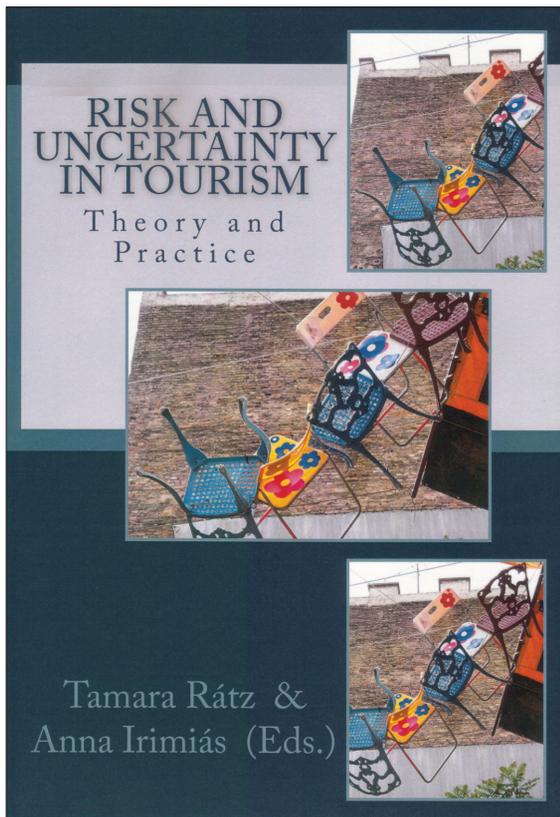
Integrating environmental objectives in economic and sectoral policies (e.g. energy, agriculture, transport) is vital, as the latter have greater impacts than environmental

policies alone. Environmental challenges should be assessed in the context of other global challenges such as food and energy security and poverty reduction. As many of the environmental problems are global in nature (e.g. biodiversity loss, climate change) or linked to the trans-boundary effects of globalisation, international co-operation is indispensable to ensure an equitable sharing of the cost of necessary measures.

The *OECD Environmental Outlook to 2050* with its very rich analytical background provides policy-makers, researchers and interested readers with guidance how to address more complex and long-term global environmental challenges and to enhance preventive, effective and efficient environmental policies for better and cleaner future of our children and grandchildren.

István POMÁZI

Rátz, T. and Irimiás, A. eds.: Risk and Uncertainty in Tourism: Theory and Practice. Kodolányi János University of Applied Sciences, Székesfehérvár, 2012. 146 p.



During the summer of 2012 a new volume of studies was published as a result of a cooperation between the Kodolányi János University of Applied Sciences and the Egyptian October 6. University, located at 6th of October City, a satellite city of Cairo. The chapters of this study book written in English were composed by international and Hungarian authors and they discuss several different aspects of the uncertainty and risk within field of tourism.

Hearing the words uncertainty, risk and risk management in connection with tourism, we tend to associate them with some sort of outer negative effect or threat such as terrorism or attacks on tourists whilst they are abroad. This book wants to avoid that negative tendency. Furthermore, with its 11 chapters, it explains a wide range of potential risks and uncertainty factors via a number of interesting cases.