OECD Environmental Outlook to 2030. Organisation for Economic Co-operation and Development, 2008, Paris, 517 p.

The OECD Environmental Outlook to 2030 provides analyses of economic and environmental trends to 2030, and simulations of policy actions to address the key future challenges.

The focus of this *Environmental Outlook* is expanded from the first Outlook published in 2001 to reflect developments in both OECD countries and Brazil, Russia, India, Indonesia, China, South Africa (BRIICS), and how they might better co-operate on global, regional and local environmental problem-solving.

The OECD Environmental Outlook to 2030 is based on projections of economic and environmental trends to 2030. The key environmental challenges for the future are presented according to a "traffic light" system. The Outlook also presents simulation of policy actions to address the key challenges, including their potential environmental, economic and social impacts.

The *Outlook* highlights some of the "red light" issues that need to be addressed urgently. The policy scenarios in this *Outlook* indicate that the policies and technologies needed to address the challenges are available and affordable. Ambitious policy actions to protect the environment can increase the efficiency of the economy and reduce health-related costs as well. In the long run, the benefits of early action on many environmental challenges are likely to outweigh the costs.

If no new policy actions are taken within the next few decades, humankind risk will irreversibly alter the environmental basis for sustained economic prosperity. To avoid that, urgent actions are needed to address in particular the "red light" issues such as climate change, biodiversity, soil degradation and loss, water scarcity and health impacts of pollution and hazardous chemicals. Without further policies, for example: global emissions of greenhouse gases are projected to grow by a further 37% by 2030, and by 52% to 2050. This could result in an increase in global temperature over pre-industrial levels in the range of 1.7–2.4°C by 2050, leading to increased heat waves, droughts, storms and floods, resulting in severe damage to key infrastructure and agricultural production.

A considerable number of today's known animal and plant species are likely to be extinct, largely due to expanding infrastructure and agriculture, as well as climate change. Food and biofuel production together will require a 10% increase in farmland worldwide with a further loss of wildlife habitat. Continued loss of biodiversity is likely to limit the Earth's capacity to provide the valuable ecosystem services that support economic development and human well-being.

Water scarcity will worsen due to unsustainable resource use and management as well as climate change; the number of people living in areas affected by severe water stress is expected to increase by another 1 billion to over 3.9 billion.

Health impacts of air pollution will increase worldwide, with the number of premature deaths linked to ground-level ozone quadrupling and those linked to particulate matter more than doubling. Chemical production volumes in non-OECD countries are rapidly increasing, and there is insufficient information to fully assess the risks of chemicals in the environment and in product chain.

The greatest environmental impacts will be experienced by developing countries, which are less prepared to manage and adapt. But the economic and social costs of policy inaction or delaying action in these areas are significant and are already affecting economies – including in OECD countries – directly (e.g. through public health care costs) as well as

indirectly (*e.g.* through reduced labour productivity). The costs of policy inaction for biodiversity loss (*e.g.* fish stocks) and climate change could be significant.

There is a window of opportunity now to introduce ambitious policy changes to tackle the key environmental problems and promote sustainable development. Investment choices being made today need to be directed towards a better environmental future, particularly those that will lock-in energy modes, transport infrastructure and building stocks for decades to come. Based on the long-term analytical experience of the OECD the following conclusions can be drawn:

- Better use a mix of complementary policies to tackle the most challenging and complex environmental problems, with a strong emphasis on market-based instruments ("Polluter Pays Principle"), such as taxes and tradable permits.
- Priorities action in the key sectors driving environmental degradation: energy, transport, agriculture and fisheries. Environmental administrations cannot solve this alone. Environmental concerns need to be integrated into all policy-making by relevant authorities including finance, economy, energy, transport, agriculture, tourism and trade, and reflected in all production and consumption decisions.
- Ensure that globalisation can lead to more efficient use of resources and the development and dissemination of eco-innovation. Business and industries need to play a lead role, but governments must provide clear and consistent long-term policy frameworks to encourage eco-innovation and to safeguard environmental and social goals.
- Improve co-operation between OECD and non-OECD countries to address global environmental challenges. Brazil, Russia, India, Indonesia, China and South Africa (BRIICS) in particular are key partners given their growing influence in the world economy and increasing share of global environmental pressures. Further environmental co-operation between OECD and non-OECD countries can help spread knowledge and best available technologies and practices.

The OECD Environmental Outlook to 2030 with its very rich analytical background provides policy-makers and researchers with guidance how to address more complex and long-term global environmental challenges and to enhance forward-looking, preventive and efficient environmental policies.

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