

Last update: 2 November 2016

Global Forum on Environment

“Towards quantifying the links between environment and economic growth”

24-25 October 2016

OECD Conference Centre (Room CC-10), Paris

Annotated agenda

The links between the economy and the environment are manifold: the environment provides resources to the economy, and acts as a sink for emissions and waste. Natural resources are essential inputs for production in many sectors, while production and consumption also lead to pollution and other pressures on the environment. Poor environmental quality in turn affects economic growth and wellbeing by lowering the quantity and quality of resources or due to health impacts. In this context, environmental policies can curb the negative feedbacks from the economy on the environment (and vice-versa). But how effective they are and whether they generate a net benefit or a net cost to society is the subject of much debate and depends on the way they are designed and implemented.

While the main mechanisms that link the economy and the environment are qualitatively known, assessments of environmental policies are often hampered by a lack of consistent metrics to compare the costs and benefits of policy changes, or by a more general lack of empirical evidence. The economic costs of biophysical and environmental consequences of policy inaction, and the associated benefits of new policies, are often not quantified. Therefore, economic discussions are often dominated by the very visible costs of policy action. Thus, it is essential to improve the toolkits that economists use to assess the benefits of environmental policies.

This OECD Global Forum on Environment aims to shed some light on this important debate. It will provide a platform for policy experts, academics and government officials from OECD and developing countries to explore how a well-managed natural environment can contribute to economic growth and how an effective and efficient regulatory system can best be designed. The Forum will last one-and-a-half day and will be organised across three themes: the environment as a (re)source for economic growth; the environment as a sink for emissions and waste and how environmental degradation affects economic growth; and, finally, how environmental policies can best promote both environmental protection and economic growth.

While the Forum covers three broad themes, the individual sessions are intended to be more focused. In each thematic session a few important aspects will be highlighted. The opening and wrap-up sessions then provide the relevant context to these discussions and bring the different elements together.

Sessions:

1. **Opening and scene setting.**

This session will highlight the key links between environment and growth from a policy perspective and set the context for the following sessions. It will also examine the tools and approaches for quantifying such linkages.

2. **How does economic growth depend on the environment and natural resources?**

This session will focus on how resource use has fuelled growth in the past, how that is no longer sustainable, and what could be some of the new drivers of growth in a green growth fuelled circular economy.

3. **How does environmental degradation affect economic growth? What are the key risks to future economic growth from environmental impacts?**

This session will focus on how impacts from air pollution, climate change and water scarcity damages hamper economic growth. It will also provide insights from recent OECD work on the global macroeconomic costs of policy inaction, coupled with insights from experts on specific sectors and regions.

4. **How can environmental policies be designed to be compatible with (green) economic growth? How can policies exploit synergies and minimise trade-offs between environmental effectiveness and economic efficiency?**

This session will draw on some recent empirical insights into these questions, both from OECD and developing countries.

DAY 1	Monday 24 October 2016 (Room CC-10)
8.30 - 9.30	Registrations
9.30-10.00	Coffee
10.00 – 12.00	<p style="text-align: center;">Opening : session 1</p> <p>Growth and environment from a policy perspective: quantitative analysis on the links between economic and environmental policy objectives</p> <p style="text-align: center;">Chair: Catherine L. Mann (OECD Chief Economist)</p> <p>This session will highlight the key links between environment and growth from a policy perspective and set the context for the following sessions. It will also provide an overview of tools and approaches to quantify these linkages.</p> <p>Key issues:</p> <ul style="list-style-type: none"> • How can environmental policy and economic growth be reconciled? • How can quantitative economic analysis inform environmental policy making? <p>Opening remarks: Catherine L. Mann (OECD Chief Economist): “The Environment and Growth: Stating facts, dispelling myths and identifying what we don’t know”.</p> <p>Keynote 1: Janez Potočnik (Co-Chair – International Resource Panel): “Natural resources and economic growth.”</p> <p>Keynote 2: Anil Markandya (Director – Basque Centre for Climate Change in the Basque Country, Spain; Honorary Professor of Economics – University of Bath, U.K.): “Natural Capital and Economic Growth: Past Evidence and Future Prospects”.</p>
12.00 – 13.30	Lunch Break

13.30 –
15.30

Session 2:

How does economic growth depend on the environment and natural resources and how can policy achieve delinking: opportunities and challenges of the circular economy

Chair: Shardul Agrawala (*Head of the Environment and Economy Integration Division – OECD Environment Directorate*)

At the global level, natural resources are a key ingredient to economic growth and their use has been growing in parallel to economic development since the industrial revolution. However, while natural resources are important, they are not sufficient to guarantee economic development. Some resource abundant countries have been able to develop their economies based on resource extraction, but others have been afflicted by the so called “resource curse” and tend to have less economic growth, less democracy and worse development outcomes than countries with fewer natural resources. At the global level, the consumption of natural resources and production of waste have increased to levels without historical precedent. Data indicate that global raw material use rose during the 20th century at about twice the rate of population growth. Recent progress in improving resource productivity has been insufficient to overcome the rising demands that result from an increase in world population to more than 9 billion people by 2050 and rapid economic growth in newly industrializing countries. Projections by the International Resource Panel indicate that in a business as usual scenario global material extraction could triple by 2050. The transition to a more circular economy, where the value of products, materials and resources is maintained in the economy for as long as possible, and the generation of waste minimised, has been identified as a way towards better resource efficiency. This session will present what is known about the macro-economic impacts of a transition towards a circular economy as well as discussing the policies that will be needed to achieve that transition.

Key issues:

- What role have natural resources played in driving economic growth and how can future growth be decoupled from resource use?
- What are the key policies that will need to be set in place to support the transition towards a circular economy and how can these be represented in macro-economic models?

Speakers:

- **Kookie Habtegabrer** (*Green economy adviser, formerly global lead for WWF’s green economy work*):
“Natural capital, development and growth”.
- **Bernd Meyer** (*Senior Adviser of GWS – The German Institute of Economic Structures Research*):
“What do we know about the macro-economic impacts of the circular economy?”
- **Peter Börkey** (*Principal Administrator – OECD Environment Directorate*):
“Policy guidance on resource efficiency”.
- **Bing Zhu** (*Executive Deputy Director of Institute of Circular Economy – Tsinghua University, P.R. of China*):
“Policies for the circular economy in China”.

15.30 –
16.00

Coffee Break

16.00 –
18.00

Session 3:

How does environmental degradation affect economic growth and what are the benefits of policy action: measuring the consequences of environmental feedbacks on economic growth

Chair: Alain de Serres (*Head of the Structural Surveillance Division – OECD Economics Department*)

For a long time, economic growth has relied on using the environment as a sink: fossil fuel use leads to emissions of greenhouse gases and air pollutants, consumption leads to waste, etcetera. But the capacity of the environment to absorb these sinks without having feedback effects on the economy is not unlimited. Climate change caused by emissions of greenhouse gases threatens our economy, as does air pollution. These and other environmental feedbacks have significant economic consequences, which will affect economic growth as well as welfare. Typical economic consequences include reduction of labour productivity from reduced health, lower crop yields, and destruction of capital, not least from extreme weather events. Furthermore, there are significant consequences that are not easily captured in economic models, such as premature deaths and losses to ecosystems and biodiversity. Projections of future impacts and economic consequences are scarce, but essential for assessing the benefits of policy action. Recent OECD analysis as part of the CIRCLE project suggests global costs of climate change, air pollution, and the land-water-energy nexus, can all lead to a significant reduction in economic activity, with large differences in consequences between regions, and important risks for much larger damages to the economy and welfare. Environmental policies can reduce these costs of inaction, and potentially generate significant co-benefits, if well-designed. Too often, policy discussions focus on the costs of control, rather than on the avoided costs from unabated impacts. This session will investigate how the economic consequences of climate change, air pollution and other environmental challenges can be projected, and how to establish robust estimates of the benefits of policy action.

Key issues:

- What are the major effects of environmental feedbacks on economic activity and economic growth?
- How can standard measures of economic growth adequately reflect the health impacts of environmental challenges such as climate change and air pollution?
- How to effectively and efficiently reduce specific environmental impacts and bring co-benefits to the economy and the environment?

Speakers:

- **Rob Dellink** (*Senior Economist, Coordinator Modelling and Outlooks – OECD Environment Directorate*):
“The economic consequences of environmental degradation: results from the CIRCLE project”.
- **Timur Gül** (*Senior Energy Analyst, International Energy Agency – IEA*):
“The role of energy in limiting negative environmental feedbacks”.
- **Emilio Lèbre La Rovere** (*Head of CentroClima – COPPE/UFRJ, Brazil*):
“Climate Change Mitigation Policy and Economic Growth. Lessons from the Brazilian Case”.
- **Sir David King** (*Foreign Secretary's Special Representative for Climate Change, UK*):
“How national governments can deal with large-scale environmental risks and reconcile growth and environment objectives”.

18.00 –
20.00

Cocktail Reception in the Gallery (Conference Centre) – open to all

DAY 2	Tuesday 25 October 2016 (Room CC-10)
9.30 – 11.30	<p style="text-align: center;">Session 4</p> <p style="text-align: center;">How can environmental policies be designed to be compatible with (green) economic growth? Evidence from firms and industries</p> <p style="text-align: center;">Chair: Antoine Dechezleprêtre (Associate Professorial Research Fellow – London School of Economics)</p> <p>Addressing the environmental challenges ahead of us is likely to require increasingly stringent environmental policies. However, the question how to design and implement these policies is often subject to heated political debate. On the one hand, policy makers fear hiking up costs for domestic industry in a global market. This remains a concern even despite little empirical evidence to support pollution haven type fears. On the other hand, policy makers may be tempted by first mover advantages and growing markets for “cleaner” goods and services. Overall, such a mix of incentives may result in suboptimal policies, for instance a tendency to use subsidies rather than taxes or to shield incumbent firms and shift more burden on new entrants.</p> <p>This session aims to present recent evidence on the impacts of environmental policies and their implementation on businesses, and to provide insights on a more general policy framework that would be conducive to green growth.</p> <p>Key issues:</p> <ul style="list-style-type: none"> • How to design and implement environmental policies to incentivise firms to innovate and become more productive? • What is the role of other policies (structural, public investment, financial regulation, etc.)? • To what extent should policies worry about losers? <p>Speakers:</p> <ul style="list-style-type: none"> • Tomasz Koźluk (Senior Economist – OECD Economics Dept.): “Environmental policies and economic performance – what can we learn from firms and industries?” • Sharlin Hemraj (Director for Environmental and Fuel Taxes – National Treasury, South Africa): “Environmental fiscal reform in South Africa”. • Shi-Ji Gao (Director-General and Research Fellow – Development Research Center (DRC) of the State Council, P.R. of China): “Environmental and industrial policies: The Chinese experiences”. • Rafael Cayuela (Author, Director and Corporate Chief Economist – The Dow Chemical Company): “Industry Perspective: Growth vs. Regulation in Chemicals”.
11.30 – 12.00	Coffee Break

12.00 – 13.30	<p style="text-align: center;">Wrap-up: session 5</p> <p>Quantifying the links between environment and economic growth – key lessons for policy making and next steps</p> <p style="text-align: center;">Moderator: Simon Upton (<i>Director – Environment Directorate, OECD</i>)</p> <p>Panel discussion on the main opportunities and challenges for using quantitative assessments of the links between economic growth and the environment to inform policy making, and the key lessons on how to make quantitative analysis most relevant for policy makers.</p> <p>Panelists:</p> <ul style="list-style-type: none"> • Nguyen Thi Dieu Trinh (<i>Senior Official – Ministry of Planning and Investment, Viet Nam</i>) • Rafael Monge (<i>Policy Adviser – Ministry of Environment and Energy of Costa Rica</i>) • Christophe Poupard (<i>Head of the Division for the Economics of Natural Resources and Risks – Ministry of Environment, Energy and the Sea, France</i>) • Stephen White (<i>Economist - Unit for Green Finance and Economic Analysis, Directorate General for Environment, the European Commission</i>) • Giuseppe Nicoletti (<i>Head of the Structural Policy Analysis Division – OECD Economics Department</i>) • Russel Mills (<i>Global Director of Energy & Climate Change Policy – The Dow Chemical Company; Chair of the BIAC Environment and Energy Committee</i>)
13.30	End of Global Forum
13.30 – 14.30	<i>Sandwich Lunch in the Atrium (Conference Centre) - open to all</i>

For further information, please visit: <http://oe.cd/gfe2016>

For any logistical questions, please contact:

- Marie-Jeanne Gaffard, Tel.: +33 1 45 24 17 63, E-mail : marie-jeanne.gaffard@oecd.org

For questions on the topics of the Forum, please contact:

- Peter Börkey (*Environment Directorate, Resource Productivity and Waste*); Peter.Borkey@oecd.org
- Rob Dellink (*Environment Directorate, Modelling & Outlooks*); Rob.Dellink@oecd.org
- Tomasz Kozluk (*Economics Department, Green Growth*); Tomasz.Kozluk@oecd.org