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World's leading experts warn of irreversible environmental destruction and disastrous economic and health consequences of unregulated economic ambition

Unbridled economic growth in many leading economies will have disastrous economic and social consequences and lead to irreversible environmental destruction, a group of global experts warns today.

As heads of state gather for the start of the G20 meeting in Hamburg, the expert group (see Notes to Editors below) calls on world leaders to put human wellbeing before unregulated economic ambition, noting that the relentless pursuit of economic growth is undermining not only the environment but also the very prosperity and benefits it aims to achieve in many countries, not least in emerging markets.

The group states that while rapid economic growth has generated unprecedented improvements in human welfare in recent decades, many policies that continue to maximise growth without enforcing environmental controls are now reaching a point of diminishing social returns.

The group, convened by Oxford University's Green Templeton College's Emerging Markets Symposium (EMS), includes leading economists, scientists, policy-makers and entrepreneurs. Director of Global Health Systems at Harvard's TH Chan School of Public Health, former Head, Imperial College London's Health Management Group, and Honorary Professor at the London School of Hygiene and Tropical Medicine, Rifat Atun said:

"Political and business leaders need to reverse the traditional economic consensus that environmental initiatives harm economic growth and business. Instead they must be in the vanguard of change. Investing in low-carbon and health-friendly economies has the potential to reconcile sustainable economic growth that yields profits with employment generation, while also protecting the planet for current and future generations. It is time for a new economic consensus."

The report argues that decision-makers have often been more concerned about the cost of interventions to limit environmental damage, seen to hurt business and growth, than about the price tag associated with *not* doing what is needed.

Death, disease and destruction: the consequences of environmental negligence

In particular, the report notes, global environmental threats are posing an increasingly acute danger to human health - especially in major emerging markets such as China and India, but also in the world at large:

- According to the World Health Organization (WHO), 23% of deaths worldwide are due to modifiable environmental factors - most prominently air pollution, which is the single greatest cause of disease and death in poorer countries and emerging markets. A number of studies have now documented how emissions from public and domestic energy systems combine in fine particles that penetrate the lungs, causing heart and lung disease, cancers and an increased risk of dementia.
- Air pollution alone accounts for around seven million deaths worldwide: outdoor air pollution is responsible for some three million deaths a year and a further four million deaths occur as a result of household air pollution. These figures compare with 1.1 million deaths in 2015 from HIV-related illnesses, and just over 11,000 deaths in the most recent Ebola outbreak in West Africa, both of which rightly attracted significant global attention and funding.
- The World Bank estimated air pollution cost the world economy some US\$ 225 billion in lost labour income alone in 2013; and health-related economic losses from haze in the city of Beijing amounted to US\$ 3.7 billion in just one month.

The world-renowned economist, Jeffrey D Sachs, Professor at Columbia University and Director of the UN Sustainable Development Solutions Network, warns:

“A quarter of all deaths worldwide are currently directly or indirectly attributed to environmental ill health. We cannot continue to stick our heads in the sand. Increasing air and water pollution, the spread of new diseases, and drug-resistant infections are already crippling our health and social systems. Urgent and radical action is needed, including investing significantly in preventing environmental health challenges, changing the way we grow and produce food, and, of course, switching to renewable energy sources.”

Addressing new priorities

Reducing the heavy death toll from environmental depletion and degradation will often require radical changes in political priorities, as well as individual behaviour. For example, a recent analysis estimated that households accounted for 81% of the total use of fresh water reserves. However, many households lack information on how to reduce their environmental impact.

Much attention to date has also focused on reducing coal-burning by industry and power plants to achieve greenhouse gas targets. While these issues remain of critical concern, new evidence shows that agricultural pollution, mainly from the fumes of livestock waste and nitrogen-rich fertilizers, now outweighs all other human sources of fine-particulate air pollution in many countries.

Intensive farming has significant negative implications for human health and is a driving force in the decline of bio-diversity:

- Excessive use of antibiotics in intensive livestock production is a major contributor to the spread of antimicrobial resistance; in the European Union and United States, agriculture accounts for over 75% of overall antimicrobial consumption;
- Nearly 80% of de-forestation in emerging markets in Latin America is linked to the development of cattle farming in the Amazon;

- Producing, processing and distributing meat accounts for up to 40 times more toxic gas emissions (including nitrous oxide and methane) than vegetables and grains.

Professor Rainer Sauerborn, former Director of the Institute of Public Health at the University of Heidelberg, comments:

“We have to stop worrying about the costs of reducing environmental pollution and start being concerned about the immeasurably higher human and financial costs of not doing what is needed. For example, there is no good reason for us to continue to rely on animals as a main source of protein when plant-based alternatives are both more beneficial to our health and our environment.”

“The good news is if appropriate action is taken to reduce environmental risks, up to 30% of cardiovascular diseases and lower respiratory infections, 50% of diarrhoeal diseases and 20% of cancers can be prevented.”

At a troubling time in international efforts to manage the challenges of environmental change, the report urges global leaders, including in China, India and Europe, as well as local authorities and businesses across the world, to join together to implement and build on the Paris Agreement, an important milestone not only in climate change but potentially also in the history of public health.

The EMS report underlines that the need to limit large-scale environmental damage is about much more than the climate and energy policies being discussed in Hamburg. Debates can no longer solely focus on economic costs but must also include new assessments of the costs to human health and well-being, including from air and water pollution, waste mismanagement, soil degradation and diminished bio-diversity.

The most effective strategies involve controlling environmental damage at its source – in a number of countries industrial emissions in air and water have been regulated, lead has been removed from gasoline, and highly toxic pesticides have been replaced by safer substitutes. These and other such interventions can provide a basis for accelerated global action.

At the same time, innovative initiatives from business are also critical to the transition to new pathways for global development. New research shows companies focusing on eco-innovation in Europe are growing at an annual rate of 15%, at a time when many of their competitors are struggling. Premier League footballer, Mathieu Flamini, who is also a major investor in breakthrough technologies to reduce dependence on fossil fuels and petroleum-based products, says:

“This report underlines the urgency of companies and investors turning their attention to solving the great environmental challenges of our era. Companies all over the world now have a huge opportunity to work on solutions that can be transformative for economies and profitable in the long-term for investors. Our company was founded to be just such a solution in the bio-chemicals field. It is businesses such as these that will succeed in securing a sustainable future - for our planet and themselves.”

What needs to be done – summary of recommendations

The EMS report lays out a number of recommendations for future action, many of which have catalytic global, national and local environmental, health and economic benefits.

These include:

- **Global leadership:** Creating a new global coalition of government, business, civil society and individuals to develop a strategic vision of a long-term equilibrium between economic activities and natural systems; such a coalition should also lay the ground for binding global agreements to ensure better management of immediate environmental threats to people's health and well-being.
- **Financing and innovation:** Developing new sources of financing, including 'climate finance' from high-income countries to help emerging markets and others adapt to climate change, and support the upfront investments needed to switch to renewable energy.
- **National governments:** Redressing current inadequate tax and subsidy systems that work against environmental and health improvements – in 2015, for example, the International Monetary Fund estimated that fossil fuel companies benefitted from global subsidies of US\$ 5.3 trillion, over half of the total health spending of all governments; doubling the share of renewable energy by 2030, thereby not only reducing air pollution-related disease but also creating 24 million jobs and increasing global GDP by 1.1%; adopting a broad 'one health' system that addresses both the social and environmental determinants of health; and increasing the meagre percentages of health budgets currently spent on prevention (just 3%, even in wealthy OECD countries) to assist in achieving the WHO-proposed goal of reducing non-communicable diseases by 25% by 2025.
- **Local authorities:** Supporting the role of local leaders as vehicles of change, e.g., mayors were the loudest voices lobbying in favour of the Paris Agreement; this type of action can become a source of inspiration for other districts and local authorities.
- **Business:** Reversing the traditional economic consensus that environmental initiatives harm economic growth and business; encouraging corporate capabilities in areas such as finance, technology and advertising to mobilize and help change behaviours; and strengthening corporate governance in emerging markets so they too can grow faster by focusing on eco-innovation.
- **Civil society:** Exploring new forms of collaboration between international non-governmental organizations and national organizations in emerging markets to strengthen the case for change locally.
- **Media:** Urging mainstream and social media companies to take on more pro-active roles as gatekeepers in the face of campaigns led by particular vested interests that aim to undermine facts or disseminate 'alternative facts' (fake news).

Notes to Editors

This press release summarizes key points from the summary of the findings, conclusions and recommendations of a 2017 symposium at Green Templeton College, University of Oxford. 'Environmental Health in Emerging Markets' full report and summary is available under embargo until 0001hrs GMT (2001hrs EST), 6 July 2017, from: <https://ems.gtc.ox.ac.uk/content/private/secure/environmental-health-emerging-markets-report-launch-2017?id=Uvw389kLpZ4> . Please copy and paste this URL into your browser.

From 6 July 2017 both will be available on the EMS website: <https://ems.gtc.ox.ac.uk>

The **Emerging Market Symposium (EMS)** is an academic initiative of **Green Templeton College, University of Oxford** that expresses the College's commitment to enhancing the management of human welfare in the modern world.

The EMS was created in 2008 because:

- (i) The prosperity of emerging markets is critically important to the world of the 21st century;
- (ii) Complex and urgent issues of human welfare and well-being, if not resolved, would constrain their growth, cohesion and stability;
- (iii) No existing forum was dedicated to these issues and;
- (iv) Green Templeton College had the convening power to gather leading authorities from national governments, international institutions, business and civil society organizations to consider issues and recommend practical changes in policies and practices that could help resolve them.

Environmental Health in Emerging Markets is authored by the EMS's executive director, Ian Scott, Associate Fellow of Green Templeton College, and a former director of the World Bank. The report is supported by the following Symposium participants:

EMS Expert Group

Alleyne, Sir George, Chancellor, University of the West Indies

Atun, Rifat, Professor of Global Health Systems, Harvard TH Chan School of Public Health

Aziz, Shaukat, Former Prime Minister, Pakistan

Beral, Dame Valerie, Director, Cancer Epidemiology Unit, University of Oxford

Berkhout, Frans, Executive Dean, Social Sciences and Professor of Environment, King's College London

Bery, Suman, Former Chief Economist, Royal Dutch Shell Corporation

Boardman, John, Emeritus Professor, Environmental Change Institute, University of Oxford

Bourne, Peter, Former Assistant Secretary General, United Nations

Boyden, Jo, Professor of International Development, University of Oxford

Burley, Jeffery, Emeritus Professor of Forestry, University of Oxford

Choudhrie, Bhanu, Executive Director, C&C Alpha Group

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Clark, Gordon, Professor and Director, Smith School, University of Oxford

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English, Lady, Former Principal, St Hilda's College, University of Oxford
Estrin, Saul, Founding Head, Management School, London School of Economics
Fenton, Kevin, Director, Health and Wellbeing, London Borough of Southwark
Flamini, Mathieu, Premier League Footballer and Co-Founder, GFBiochemicals
Fleming, Ken, Former Dean, Medical Sciences Division, University of Oxford
Frick, Martin, Director, Climate, Energy and Tenure, UN Food and Agriculture Organization
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