



SEIZING THE GLOBAL OPPORTUNITY PARTNERSHIPS FOR BETTER GROWTH AND A BETTER CLIMATE

The 2015 New Climate Economy Report

EXECUTIVE SUMMARY

2015 is a year of unprecedented opportunity.

This year's landmark intergovernmental conferences – the International Conference on Financing for Development in Addis Ababa in July, the United Nations Summit to adopt the post-2015 Sustainable Development Goals in New York in September, the G20 Summit in Antalya in November, and the UN Climate Change Conference (COP21) in Paris in December – have the potential to advance a new era of international cooperation which can help countries at all income levels build lasting development and economic growth while reducing climate risk.

A goal once seen as distant – to end extreme poverty, achieve broad-based prosperity and secure a safe climate, all together – is increasingly within reach.

As the Commission's 2014 report *Better Growth, Better Climate* argued, crucial investments will be made over the next 15 years in the world's cities, land use and energy systems. They have the potential to generate multiple benefits for economic growth, human development and the environment; or they could lock countries into high-carbon pathways, with severe economic and climatic consequences. Through credible, consistent policies to drive resource efficiency, infrastructure investment and innovation, both developed and developing countries can achieve stronger economic performance and climate goals at the same time. This report shows how such actions can be scaled up through cooperative, multi-stakeholder partnerships – not just between governments, but among businesses, investors, states and regions, cities and communities.

Technological innovation, new economic trends, and new political commitments are now combining to build momentum for change. Renewable energy costs continue to decline, and energy storage and demand management technologies are being developed rapidly, creating new opportunities to build cleaner and more efficient energy systems and to expand energy access in developing countries. Carbon pricing has been adopted or is planned in about 40 countries and more than 20 sub-national jurisdictions, and over 1,000 major companies and investors have declared their support for it. In the last two years, 28 countries have launched efforts to reform fossil fuel subsidies, helped recently by lower oil prices. Cities are adopting ambitious emission reduction and air quality targets and plan to track their progress using common standards. Some 175 governments, companies, indigenous people's groups and civil society organisations have committed to halt deforestation by 2030, and leading consumer goods and agricultural trading companies are working with tropical forest countries and communities to eliminate deforestation from their supply chains. International finance to support climate resilience and low-carbon investment continues to grow; issuances of "green bonds", for example, more than tripled in the last year. And companies, investors, governments and financial regulators are increasingly integrating climate change into their investment and business strategies, creating new opportunities and competitive advantage for market leaders.

At the same time, the costs of continuing the current fossil fuel-based economic model are becoming ever clearer. Air pollution primarily related to fossil fuel-based energy and vehicle emissions leads to an estimated 3.7 million premature deaths globally each year, with millions more suffering from respiratory illnesses. Growing traffic congestion is causing serious economic costs in cities throughout the world, while road traffic accidents kill around 1.25 million people annually, over 90% of them in developing countries. Volatile oil prices are likely to continue, increasing economic uncertainty and delaying business investment. As low-carbon energy costs fall and climate policy is tightened, locking in high-carbon assets increases the risk of future devaluation or stranding.

Yet action is not yet occurring at the scale or speed necessary for structural transformation toward a new climate economy. An increasing focus in international economic forums on infrastructure for growth, the emergence of new development banks and financing mechanisms, and historically low

interest rates in some economies, create a significant opportunity to stimulate low-carbon growth in both developing and developed countries. But infrastructure investments remain inadequate almost everywhere. Performance continues to be constrained by the protracted effects of the global financial crisis, deeply embedded market failures, underlying weaknesses in policies and institutions, and the inertia of a longstanding high-carbon economic model.

While CO₂ emissions are beginning to decouple from growth in both advanced and some emerging economies, this process needs to accelerate if we are to avoid the worst impacts of climate change on human welfare and the global economy. Changes in seasonal weather patterns, and the rising costs of more frequent extreme weather events such as floods and droughts, are already being felt, particularly by the most vulnerable developing countries. To hold global warming to under 2°C, as agreed by the international community, the carbon emitted per dollar of GDP in the global economy is likely to need to decline by an average of around 5% a year between now and 2050, compared with the current rate of under 1.5%. For developing countries, improving emissions intensity allows for strong GDP growth while total emissions peak and then ultimately decline.

Achieving a new international climate agreement in Paris would provide a vital foundation for building a lower-carbon and more resilient global economy, sending a strong signal to businesses and investors. The agreement should include a long-term goal for emissions to reach near-zero or below in the second half of the century, and a mechanism for regular strengthening of commitments. A strong and equitable package of support for developing countries is needed, through which international public finance mobilises private-sector flows, complements strong domestic financial resources, and helps enhance institutional and technological capacities.

The "intended nationally determined contributions" (INDCs) that countries are submitting for Paris should be as ambitious as possible this year, but should be considered as floors rather than ceilings to national ambition over the coming years. Many INDCs already reflect historically ambitious commitments, but collectively it is likely that they will not be enough to achieve a 2°C path. As technological change, increased financing and multi-stakeholder action and cooperation create new low-carbon opportunities at lower cost, countries should aim to strengthen their commitments.

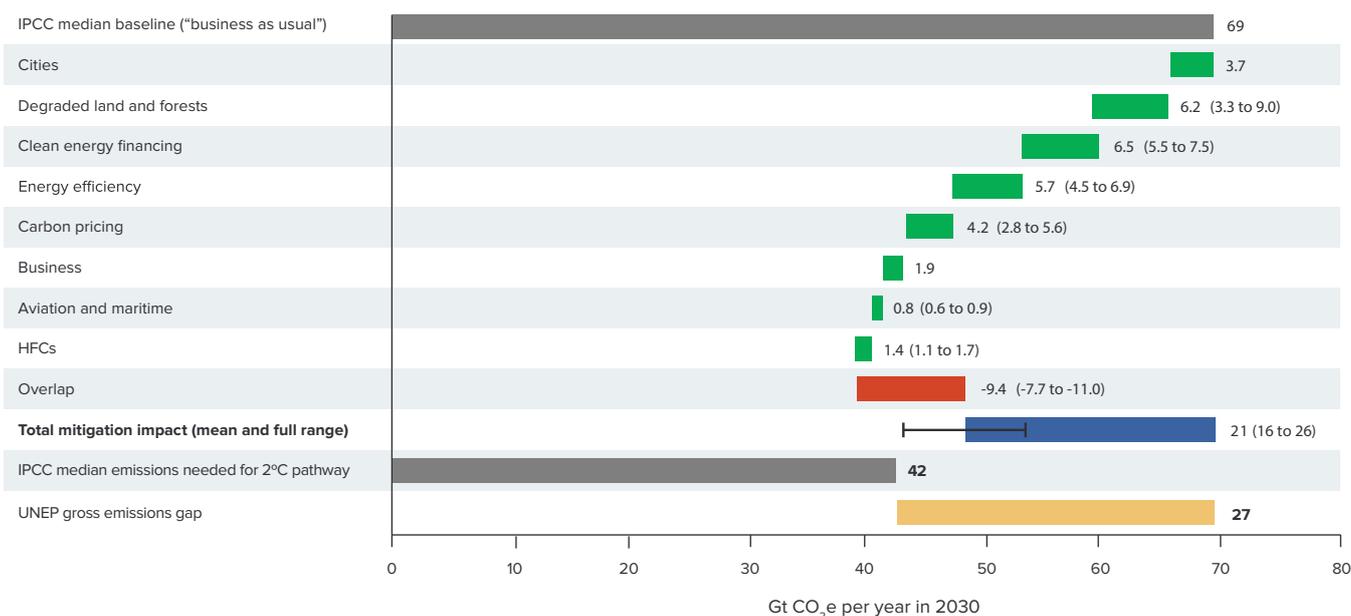
This report identifies 10 key areas of opportunity for stronger climate action which will also bring significant economic benefits. Together, it is estimated that these could achieve at least 59% and potentially as much as 96% of the emissions reductions needed by 2030 to keep global warming under 2°C. Cooperation of multiple kinds between governments, city authorities, businesses, international organisations and civil society can help to realise the full economic benefits of these actions. It can scale up technological change, expand markets, reduce costs, address concerns about international competitiveness, spread best practice and increase the flows of finance.

Multi-stakeholder and international partnerships can in this way strengthen current momentum, and

help drive further economic growth and climate action together. The ten areas identified in the report cover the three key economic systems where economic growth and greenhouse gas (GHG) emissions are concentrated – cities, land use and energy; the three key drivers of growth – resource efficiency, infrastructure investment and innovation; action by businesses and investors; and three sectors where international cooperation is essential – reducing emissions from international aviation and shipping, and phasing down hydrofluorocarbons (HFCs). In each area, the report shows how strengthened partnerships between multiple stakeholders can catalyse significant economic benefits, as well as global emissions reductions, and identifies key commitments which can be made this year or in 2016.

Figure 1
The emissions reduction potential of the Commission’s recommendations (Gt CO₂e)

Full implementation of the Commission's recommendations could achieve up to 96% of the emissions reductions in 2030 needed to keep global warming under 2°C.



Note: Bars show mean emissions reduction potential for each field with the full ranges in brackets.

Source: New Climate Economy, 2015. "Estimates of Emissions Reduction Potential for the 2015 Report: Technical Note." A technical note for Seizing the Global Opportunity: Partnerships for Better Growth and a Better Climate. Available at: <http://newclimateeconomy.report/misc/working-papers>.

The Commission makes the following recommendations:

In the key economic systems where growth and emissions are concentrated:

1. Accelerate low-carbon development in the world's cities

All cities should commit to developing and implementing low-carbon urban development strategies by 2020, using where possible the framework of the Compact of Mayors, prioritising policies and investments in public, non-motorised and low-emission transport, building efficiency, renewable energy and efficient waste management.

Compact, connected and efficient cities can generate stronger growth and job creation, alleviate poverty and reduce investment costs, as well as improving quality of life through lower air pollution and traffic congestion. Better, more resilient models of urban development are particularly critical for rapidly urbanizing cities in the developing world. International city networks, such as the C40 Cities Climate Leadership Group, ICLEI (Local Governments for Sustainability) and United Cities and Local Governments (UCLG), are scaling up the sharing of best practices and developing initiatives to facilitate new flows of finance, enabling more ambitious action on climate change. Multilateral development banks, donors and others should develop an integrated package of

at least US\$1 billion for technical assistance, capacity building and finance to support commitments by the world's largest 500 cities. Altogether, low-carbon urban actions available today could generate a stream of savings in the period to 2050 with a current value of US\$16.6 trillion, and could reduce annual GHG emissions by 3.7 Gt CO₂e in 2030.

2. Restore and protect agricultural and forest landscapes, and increase agricultural productivity

Governments, multilateral and bilateral finance institutions, the private sector and willing investors should work together to scale up sustainable land use financing, towards a global target of halting deforestation and putting into restoration at least 500 million ha of degraded farmlands and forests by 2030. Developed economies and forested developing countries should enter into partnerships that scale up international flows for REDD+, focused increasingly on mechanisms that generate verified emission reductions, with the aim of financing a further 1 Gt CO₂e per year from 2020 and beyond. The private sector should commit to extending deforestation-free supply chain commitments for key commodities and enhanced financing to support this.

Halting deforestation and restoring the estimated one-quarter of agricultural lands worldwide which are severely degraded can enhance agricultural productivity



and resilience, strengthen food security, and improve livelihoods for agrarian and forest communities in developing countries. Developing countries, supported by international partnerships between governments, the private sector and community organisations and initiatives such as the New York Declaration on Forests, REDD+, Initiative 20x20 in Latin America, the Africa Climate-Smart Agriculture Alliance and the Global Alliance for Climate-Smart Agriculture, are helping to improve enabling environments for forest protection and agricultural production, and reducing and sharing investment risk to facilitate larger financial flows. The Consumer Goods Forum and companies representing 90% of the global trade in palm oil have committed to deforestation-free supply chains by 2020, while major commodity traders and consumers are working to widen such pledges to other forest commodities. Enhancing such partnerships could enable a reduction in annual GHG emissions from land use of 3.3-9.0 Gt CO₂e by 2030.

3. Invest at least US\$1 trillion a year in clean energy

To bring down the costs of financing clean energy and catalyse private investment, multilateral and national development banks should scale up their collaboration with governments and the private sector, and their own capital commitments, with the aim of reaching a global total of at least US\$1 trillion of investment per year in low-carbon power supply and (non-transport) energy efficiency by 2030.

The rapid scale-up of low-carbon energy sources and energy efficiency is essential to drive global growth, connect the estimated 1.3 billion people currently lacking access to electricity and the 2.7 billion who lack modern cooking facilities, and reduce fossil fuel-related air pollution. Increasing international financing for energy access is a key priority. International cooperation coordinated by development finance institutions is helping improve the risk-return profile of clean energy projects, particularly for renewables and energy efficiency, lowering the cost of capital for investment and increasing its supply. It is also starting to drive a shift in investments away from new coal-fired power and fossil fuel exploration; this needs to be accelerated, starting with developed and emerging economies. Scaling up clean energy financing to at least US\$1 trillion a year could reduce annual GHG emissions by 2030 by 5.5-7.5 Gt CO₂e.

4. Raise energy efficiency standards to the global best

G20 and other countries should converge their energy efficiency standards in key sectors and product fields to the global best by 2025, and the G20 should establish a global platform for greater alignment and continuous improvement of standards.

Cooperation to raise energy efficiency standards for appliances, lighting, vehicles, buildings and industrial equipment can unlock energy and cost savings,



Photo credit: Flickr: Asian Development Bank

expand global markets, reduce non-tariff barriers to trade, and reduce air pollution and GHG emissions. Cooperation should be facilitated and supported by the G20, empowering existing sectoral initiatives, and international organisations such as the International Energy Agency (IEA), the International Partnership for Energy Efficiency Cooperation (IPEEC), and Sustainable Energy for All (SE4All). Globally, enhanced energy efficiency investments could boost cumulative economic output by US\$18 trillion to 2035, increasing growth by 0.25–1.1% per year. Aligning and gradually raising national efficiency standards could reduce annual GHG emissions in 2030 by 4.5–6.9 Gt CO₂e.

For the key drivers of both economic growth and emissions reductions:

5. Implement effective carbon pricing

All developed and emerging economies, and others where possible, should commit to introducing or strengthening carbon pricing by 2020, and should phase out fossil fuel subsidies.

Strong, predictable and rising carbon prices send an important signal to help guide consumption choices and investments in infrastructure and innovation; the fiscal revenues generated can be used to support low-income households, offset reductions in other taxes, or for other policy objectives. An estimated 12% of annual GHG emissions are now covered by existing or planned carbon taxes or trading systems

around the world. Businesses are increasingly calling on governments to implement carbon pricing, and over 150 now use an internal carbon price (typically around US\$40/t CO₂ for oil companies) to guide investment decisions. International cooperation on carbon pricing and subsidy reform, including through the G20 and with the support of the World Bank, the Organisation for Economic Co-operation and Development (OECD) and the International Monetary Fund (IMF), can help mitigate concerns about competitiveness impacts from unilateral policy measures, improve knowledge-sharing and transparency, provide opportunities to link emission trading schemes, and reduce the costs of action.

6. Ensure new infrastructure is climate-smart

G20 and other countries should adopt key principles ensuring the integration of climate risk and climate objectives in national infrastructure policies and plans. These principles should be included in the G20 Global Infrastructure Initiative, as well as used to guide the investment strategies of public and private finance institutions, particularly multilateral and national development banks.

About US\$90 trillion in infrastructure investment is needed globally by 2030 to achieve global growth expectations, most of it in developing countries. Infrastructure investment has become a core focus of international economic cooperation through the G20 and for established and new development finance



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institutions. Integrating climate objectives into infrastructure decisions, often at no or very modest additional cost, will increase climate resilience and avoid locking in carbon-intensive and polluting investments. International finance will have to be significantly scaled up to deliver the up-front infrastructure investments needed to achieve development and climate goals, including increased capitalisation of both national and multilateral development banks.

7. Galvanise low-carbon innovation

Emerging and developed country governments should work together, and with the private sector and developing countries, in strategic partnerships to accelerate research, development and demonstration (RD&D) in low-carbon technology areas critical to post-2030 growth and emissions reduction.

Public funding for low-carbon RD&D is currently too low to catalyse innovation for long-term growth and cost-effective emissions reduction beyond 2030. It should be at least tripled by the major economies by the mid-2020s. International partnerships enable countries to share the costs of innovation, and the knowledge generated by it. This can be of particular benefit to low- and middle-income countries, enabling them to “leapfrog” to new technologies and enhance their innovation capacity. Priority areas for low-carbon

cooperative innovation include agriculture and energy access, particularly in developing countries; longer-term global solutions such as bioenergy and carbon capture, utilisation and storage; and key technologies to avoid lock-in of carbon-intensive infrastructure, including buildings, electricity networks and transport systems.

In critical fields of business and finance sector activity:

8. Drive low-carbon growth through business and investor action

All major businesses should adopt short- and long-term emissions reduction targets and implement corresponding action plans, and all major industry sectors and value chains should agree on market transformation roadmaps, consistent with the long-term decarbonisation of the global economy. Financial sector regulators and shareholders should actively encourage companies and financial institutions to disclose critical carbon and environmental, social and governance factors, and incorporate them in risk analysis, business models and investment decision-making.

Businesses are driving a US\$5.5 trillion global market in low-carbon and environmental technologies and products, and many large companies are now cutting their emissions, realising significant cost savings and often enhancing profitability. Business- and finance sector-led initiatives are setting new norms for corporate action, including long-term target-setting and the



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integration of climate risk into investors' analysis and strategy. Initiatives such as the Tropical Forest Alliance 2020 and the Low Carbon Technology Partnerships initiative seek to transform markets in key sectors and value chains, driving innovation and creating global low-carbon markets. Companies should work with governments, unions and other stakeholders to ensure a "just transition" to a low-carbon economy, supporting job creation, skills development and community renewal.

For key sectors where international action can unlock low-cost emissions reduction:

9. Raise ambition to reduce international aviation and maritime emissions

Emissions from the international aviation and maritime sectors should be reduced in line with a 2°C pathway through action under the International Civil Aviation Organization (ICAO) to implement a market-based measure and aircraft efficiency standard, and through strong shipping fuel efficiency standards under the International Maritime Organization (IMO).

Global aviation and shipping together produced about 5% of global CO₂ emissions, and by 2050 this is expected to rise to 10–32%. Yet they offer some of the most cost-effective emission reductions available today, particularly through improved fuel efficiency. Two new IMO standards are expected to save an average of US\$200 billion in annual fuel costs by 2030. Adoption by the ICAO in 2016 of a market-based measure (an emissions trading or offset scheme) can both cut emissions and potentially generate finance for climate action or other purposes. This should be complemented by a new aircraft standard to ensure emissions reductions within the sector. The IMO should adopt a global emissions reduction target and promote fuel saving through strong operational efficiency standards and a supporting data-sharing system. These measures could help reduce annual GHG emissions by 0.6–0.9 Gt CO₂e by 2030.

10. Phase down the use of hydrofluorocarbons (HFCs)

Parties to the Montreal Protocol should approve an amendment to phase down the production and use of HFCs.

Hydrofluorocarbons, used as refrigerants, as solvents, in fire protection and in insulating foams, are the fastest-growing GHGs in much of the world, increasing at a rate of 10–15% per year. Replacing HFCs with greener refrigerants has low upfront costs and can result in both energy and cost savings. Cooperative initiatives such as through the Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants (CCAC), the Consumer Goods Forum, and Refrigerants, Naturally! are helping countries and companies scale back HFC use. Incorporating HFCs into the Montreal Protocol could realise significant near-term gains to slow climate change and provide support to developing countries, avoiding 1.1–1.7 Gt CO₂e of annual GHG emissions per year by 2030, while driving significant energy efficiency improvements.

Implementing these actions will in many cases require significant investment. International and national public finance will be needed to catalyse and help leverage private finance, in particular for low-carbon energy and urban development; action to halt deforestation and restore degraded land; to build capacity; and to scale up research, development and demonstration of clean technologies and processes. The economic benefits of such investment will be substantial, even without consideration of the gains for the climate.

The Global Commission urges the international community to seize the opportunity of the unique series of meetings occurring in 2015 to put the world on a pathway to low-carbon, climate-resilient growth and development. Cooperative action, between governments at all levels and with the private sector, international organisations and civil society, can help achieve both better growth and a better climate. This will require strong and sustained political leadership. But the prize is immense. Together, a secure, prosperous and sustainable future is within our reach.

The Global Commission on the Economy and Climate, and its flagship project The New Climate Economy, were set up to help governments, businesses and society make better-informed decisions on how to achieve economic prosperity and development while also addressing climate change. To read the full *Seizing the Global Opportunity: Partnerships for Better Growth and a Better Climate* report visit www.newclimateeconomy.report. For media and other inquiries, please email info@newclimateeconomy.net.