

## PART III: GLOBAL ACTION PLAN

### Introduction

Each chapter of this report sets out detailed recommendations for governments and other decision-makers. The Commission highlights here 10 transformative areas for action which can deliver both significant economic benefits and reduce the risk of dangerous climate change. These actions offer the prospect of better economic growth that yields multiple benefits, including more energy, water and food security; improved rural livelihoods; better protection of the natural world; less traffic congestion; improved air quality and public health; as well as lower greenhouse gas emissions and more climate-resilient growth. A key insight of the New Climate Economy study is that these actions make good economic sense, even before their climate benefits are considered. Countries can gain a net benefit from implementing the proposed actions, when these full advantages are considered. Implementing these actions can achieve at least half of the cuts in global greenhouse gas emissions required by 2030 to stay on a 2°C pathway, and potentially up to 90%, if they are implemented in the right way. Taken together, the proposed actions would send a strong, clear signal that the world economy is poised to follow a low-carbon direction. They would reduce uncertainty for investors, businesses, farmers and consumers, and so reduce the transitional costs of change. The more countries, cities and businesses that move in this direction, the easier it is for everyone to join in. But the right policy signals and actions are needed urgently. If this does not happen now, there is a serious risk that we will lock in a growth path with significant risks of climate change and weak economic performance. Delaying action will also increase the costs of changing course later on.

The world can only achieve such ambitious, deliberate change with leadership and collaboration. It requires the engagement of economic decision-makers at every level. Countries have different abilities to realise the opportunities highlighted here. Developed countries must show real leadership: both politically, demonstrated through their own domestic ambition, and by supporting the development and dissemination of low-carbon technologies and know-how, providing finance, and strengthening the financial institutions needed to bring down the cost of low-carbon investments. Developing countries will require financial, institutional and technological support. For their part, developing countries already account for two-thirds of global greenhouse gas emissions, largely as a result of emissions growth in rapidly industrialising, middle-income economies. Global emissions reductions on the scale required will therefore only be possible if all countries participate in delivering these actions.

By implementing the recommendations in this Global Action Plan, the world's economic decision-makers have a remarkable opportunity to set the world on the path to better growth and a better climate. The Commission urges them to seize it.

The Commission's 10 recommendations are divided into two main classes of policy action. Recommendations 1 to 6 define the necessary conditions for better, low-carbon, climate-resilient investment and growth; recommendations 7 to 10 focus on the potential for sectoral change which drives future growth and lower climate risk, specifically in urban, land use and energy systems.

The Commission recommends that national, sub-national and city governments, businesses, investors, financial institutions and civil society organisations:

#### **1. Accelerate a low-carbon transformation by integrating climate action and risk into strategic economic decision-making.**

The risk of severe climate change threatens long-term economic growth and business performance. Tackling climate change, meanwhile, presents significant opportunities to strengthen growth and create new market opportunities. Business leaders have started to monitor, report on and actively manage the climate (and other environmental) impacts of their activities, under increasing scrutiny by civil society. Companies, cities and countries are strengthening their approaches to climate resilience and adaptation. Many long-term investors recognise that accounting for and addressing material environmental, social and governance factors is part of their fiduciary duty. At the same time, there is a growing risk that investments in fossil fuel assets may be "stranded" (prematurely scrapped or devalued) as countries move to a low-carbon growth model.

Decision-makers must integrate climate and other environmental impacts into their core economic, development and investment strategies. Taking a long-term approach, integrating these factors into investment and business decision-making, can reduce investor risk without harming performance.

To implement and support this recommendation:

- All governments, major businesses, investors, development, commercial and investment banks, international organisations and leading cities should work to integrate climate risks and opportunities into their economic and business strategies.
- Climate and other environmental risks should be integrated into core decision-making tools and practices, such as economic and business models, policy and project assessment methods, performance indicators, discounting approaches used to estimate

the present value of longer-run costs and benefits, risk metrics and models, resilience tests, and reporting requirements.

- Businesses, working through associations such as the World Business Council on Sustainable Development and with government regulators, should adopt and implement a standardised Integrated Reporting Framework for financial and non-financial performance that includes the assessment of climate risk and risk reduction strategies. Investors and stock exchanges should require companies to disclose this information.
- Investors, working together with government financial regulators, should develop an approach to report transparently on the carbon exposure of their assets, and the potential risk of stranded fossil fuel assets. Banks should deepen their assessment of environmental and carbon risk in transactions.
- The G20 should make climate risk assessment and reduction a standing agenda item in its meetings. Major international organisations concerned with the management of the global economy, such as the International Monetary Fund, the Organisation for Economic Co-operation and Development, and the multilateral development banks, should reflect climate risk assessment and reduction in their surveillance processes and policy assessments as relevant to their mandates.

## 2. Create the confidence needed for global investment and climate action by entering into a strong, lasting and equitable international climate agreement.

The Commission's analysis shows that the national actions and investments that drive economic growth can also reduce climate risks. But these actions and investments will not be sufficient to put economies worldwide on a pathway to avoid dangerous climate change. International cooperation is essential to reduce the global cost of climate action; provide sufficient finance and technological cooperation to support developing country action; send a strong and predictable signal for investment; open opportunities for trade; and ensure a level playing field to reduce competitiveness impacts. An international climate agreement is also essential to provide the confidence and trust needed for robust domestic policy action. The Commission urges leaders to achieve a strong, lasting and equitable agreement under the United Nations in 2015.

To implement this recommendation:

- All governments should set clear, ambitious medium-term (e.g. 2025) national greenhouse gas emission targets or actions which reflect their common but differentiated responsibilities as part of the global

agreement. They should agree a global goal which would achieve annual greenhouse gas emissions of near zero or below in the second half of the century. The agreement should include a mechanism for regular strengthening of national commitments (e.g. on five-yearly cycles); financial and technical support for developing country action, and strong commitments to take adaptation action. It should also provide as much transparency as possible to build confidence. The principles of equity and a just transition should underpin the agreement, reflecting the current and changing circumstances of countries.

- Developed countries should commit to a clear pathway for meeting the Copenhagen commitment to mobilise US\$100 billion annually by 2020 in public and private finance, combined with greater transparency of financial commitments and identifying new sources of finance (see Recommendation 5).
- Businesses, cities, states, national governments, international institutions and civil society organisations should complement an international agreement by strengthening (and where appropriate, creating) cooperative initiatives to drive growth and climate risk management in key sectors, including major commodities and energy-intensive industries, and to achieve the phase-out of hydrofluorocarbons (HFCs).

## 3. Phase out subsidies for fossil fuels and agricultural inputs and incentives for urban sprawl.

Globally, subsidies and tax breaks to fossil fuel exploration, production and consumption amount to around US\$600 billion each year, while support to agricultural input use in advanced and some emerging economies totals about US\$80 billion per year. Phasing out these subsidies can enhance economic efficiency; free up scarce government resources to provide better targeted support to low-income households and affected workers; build agricultural resilience; and reduce greenhouse gas emissions. Perverse subsidies which support urban sprawl, either explicitly or implicitly, also persist in many countries, for example through under-pricing of the conversion of land, and of the costs of public services and infrastructure provision. These subsidies can be costly to taxpayers. To implement this recommendation:

- National governments should develop comprehensive plans for phasing out fossil fuel and agricultural input subsidies. These should include enhanced transparency and communication and targeted support to poor households and affected workers. Governments should explore innovative approaches with multilateral and national development banks on

how to finance the upfront costs of reducing

- the impact on low-income households, and enhancing service delivery as or before the subsidies are phased out.
- Export credit agencies should agree to restrict preferential terms for new coal power stations to supercritical or more efficient technologies, and then to a timetable for phasing out these preferential terms, initially for middle-income countries, and then for low-income countries (See Recommendation 5).
- Regions, cities and urban development ministries should phase out incentives for urban sprawl. Multilateral and national development banks should work with countries to redirect infrastructure spending away from projects that enable urban sprawl and towards more connected, compact and coordinated urban development.

#### 4. Introduce strong, predictable carbon prices as part of good fiscal reform.

Carbon prices are an essential element in the growth and climate policy mix. About 40 countries and over 20 sub-national jurisdictions now apply or have scheduled to apply carbon pricing through a carbon tax or emissions trading scheme (ETS). A further 26 countries or jurisdictions are considering carbon pricing. The Commission finds no evidence that implementing carbon pricing slows growth. The effective use of the significant fiscal revenues generated – including to reduce other taxes – can instead boost growth and employment, even in the short term, and be used to address distributional concerns. Even a low initial carbon price, if accompanied by transparent mechanisms to increase it over time, can send a strong signal, incentivising producers and consumers to shift behaviour and to invest in assets, technologies and systems that foster low-carbon growth.

A broader policy approach is needed to complement carbon prices, in order to address other market failures and overcome the inertia embedded in the current, high carbon economy, and to strengthen investor confidence. This broader policy mix includes market-based resource pricing; better regulations and performance standards; improved information provision; targeted research and development; public procurement policies; and measures that can reduce government-induced regulatory uncertainty. This uncertainty is the enemy of low-carbon jobs, investment and growth.

To implement this recommendation:

- National governments should introduce a strong,

predictable and rising carbon price as part of fiscal reform strategies, prioritising the use of resulting revenues to offset impacts on low-income households and finance reductions in other distortionary taxes.

- Major companies worldwide should apply a “shadow” carbon price to their investment decisions and support governments in putting in place well-designed, stable regimes for carbon pricing.
- Efficient regulations, standards and other approaches should be used to complement pricing; these can also help to put an “implicit” price on carbon for countries where a low level of carbon pricing is politically difficult, preferably with flexibility built in to facilitate the introduction of explicit pricing later.
- National governments should seek to reduce policy risk and uncertainty by enacting domestic climate legislation, modifying their national plans and developing the institutional arrangements needed to meet their commitments under an international climate agreement (see Recommendation 2).

#### 5. Substantially reduce the capital cost of low-carbon infrastructure investment.

It is estimated that around US\$90 trillion will need to be invested globally in infrastructure between now and 2030 to deliver economic growth and prosperity. Analysis for this report suggests that a low-carbon growth path can be achieved with only slightly higher investments. The lower operating costs of clean energy choices may partially or fully offset the cost of any additional investments in the energy sector. New and existing finance tools and approaches are needed to ensure there is sufficient access to finance for the up-front investments in low-carbon and climate-resilient cities, transport, land-use and energy. Given the capital intensity of many low-carbon technologies, reducing the costs of capital could significantly boost investment in these solutions.

To implement this recommendation:

- Donors, multilateral and national development banks should review all lending and investment policies and practices, and phase out financing of high-carbon projects and strategies in urban, land use and energy systems, except where there is a clear development rationale without viable alternatives.
- Governments and multilateral and national development banks should help provide new and existing financing institutions with the right skills and capacity to provide finance for low-carbon and climate-resilient infrastructure, and to leverage private finance towards this goal. This would include finance for distributed off-grid and mini-grid renewable energy solutions, as a contribution to

achieving universal access to modern energy services.

- In rapidly developing countries facing high interest rate environments, governments should shift their support models for low-carbon infrastructure more towards low-cost debt, and away from price subsidies such as feed-in tariffs. This could reduce the total subsidy required, bring down the cost of energy over time, and in some cases, may reduce the need to buy imported fuel.
- Governments, working with investor groups, should help develop well-regulated asset classes, industry structures and finance models for renewable and other low-carbon energy investment which match the needs of institutional investors, and identify and remove barriers that may hamper these investments.

## 6. Scale up innovation in key low-carbon and climate-resilient technologies and remove barriers to entrepreneurship and creativity.

Innovation is a fundamental engine of long-term growth in a world with environmental constraints. Advances in material sciences and digitalisation, in combination with new business models, are already driving a low-carbon industrial transformation. Digital technologies have shifted services on-line, enabled end-users to actively manage their energy demand, and driven the rapid development of car- and other asset-sharing schemes. Together with new materials, they have the potential to enhance resource productivity in energy-intensive sectors such as construction and transport, to drive the development of new industries, such as advanced manufacturing and renewables, and to enable the development of a more “circular” economy in which materials are recycled and reused. Strong market signals, together with smart government interventions, will be needed to unleash the power of innovation to accelerate the transition to a low-carbon, climate-resilient economy and make it cheaper.

To implement this recommendation:

- Governments of the major economies should at least triple their energy-related research and development expenditure by the mid-2020s, with the aim of exceeding 0.1% of GDP; in addition, all countries should develop coordinated programmes to support the development, demonstration and deployment of potentially game-changing technologies, such as energy storage and carbon capture, use and storage.
- Governments should strengthen the market pull for new low-carbon technologies, in particular through carbon pricing, performance-based (technology-neutral) codes and standards, and public procurement policies.

- Governments should work individually and together to reduce barriers to the entry and scaling of new business models, particularly around “circular economy” and asset-sharing mechanisms, and trade in low-carbon and climate-resilient technologies.
- Donors, working with international agencies such as the Consultative Group on International Agricultural Research (CGIAR), the UN Food and Agriculture Organization and national research institutes in emerging and developing countries, should double investment in agriculture and agroforestry R&D, with the aim of boosting agricultural productivity, climate-resilient crop development and carbon sequestration.
- Learning from the CGIAR experience, governments should collaborate to establish an international network of energy access “incubators” in developing countries. These should enhance public and private R&D in off-grid electricity, household thermal energy, and micro- and mini-grid applications. They should also boost business model development for new distributed energy technologies.

## 7. Make connected and compact cities the preferred form of urban development.

More connected, compact and coordinated urban development based on mass public transport would raise infrastructure productivity, reduce the costs of providing public services, and could lower urban infrastructure spend by over US\$3 trillion from 2015-2030. When managed well, connected and compact cities are not only more productive, they are also more competitive, socially inclusive, resilient, safer, cleaner, and generate lower greenhouse gas emissions. Urban sprawl, on the other hand, has significant economic, social and environmental costs, estimated for example to cost the equivalent of US\$400 billion each year in the United States alone. Regeneration and densification of inner urban areas can help to rejuvenate sprawling cities by making them more attractive for people and investment.

To implement this recommendation:

- Finance and urban planning ministries, national development banks, and city mayors should commit to a connected, compact and coordinated urban development model, centred on mass transport and resource-efficient service delivery.
- City authorities, working with national and sub-national governments, should identify ways to increase locally generated revenues to finance and incentivise smarter, more compact and resilient urban development – for example, through greater use of congestion charging, parking fees, land development taxes and land value capture mechanisms.

- Governments, multilateral and national development banks should work with major cities and private banks to strengthen the creditworthiness of cities. They should work together to set up a global city creditworthiness facility.
- Networks of cities, such as the C40 Cities Climate Leadership Group and ICLEI (Local Governments for Sustainability), working with international organisations and the private sector, should create a Global Urban Productivity Initiative aimed at significantly increasing the economic and resource productivity of the world's cities. The initiative could start by developing, quantifying and disseminating best practices in boosting urban productivity, and support countries' efforts to put sustainable urbanisation at the heart of their economic development strategies.

## 8. Halt the deforestation of natural forests by 2030.

Forests are a vital natural resource. They support the livelihoods of hundreds of millions of people who live in or next to them or work in forest-related sectors. As well as timber and other forest products, they provide watershed protection, flood management, landslide prevention, climate mitigation, recreation, eco-tourism, and other economically valuable services. Between 2000 and 2010, the world lost on average 13 million hectares (gross) of forest each year to deforestation, as a result of the clearing of forests and subsequent conversion of land to other uses, most commonly agriculture. Some estimates suggest that conserved and sustainably managed forests can generate US\$6,000 or more in aggregate value per hectare per year through the provision of a wide array of goods and services.

To implement this recommendation:

- Developed countries should scale up payments for Reducing Emissions from Deforestation and forest Degradation (REDD+) to at least US\$5 billion per year, focused increasingly on payments for verified emission reductions.
- Forest-rich countries should take steps to correct the governance and market failures undermining natural forest capital, including actions to improve land use planning, secure tenure, strengthen enforcement of forest laws, and increase transparency concerning the condition and management of forests.
- Companies and trade associations in the forestry and agricultural commodities sectors (including palm oil, soy, beef, and pulp and paper) should commit to

eliminating deforestation from their supply chains by 2020, for instance through collaborative initiatives such as the Consumer Goods Forum and its Tropical Forest Alliance 2020 and in cooperation with banks willing to incorporate environmental criteria into their trade financing instruments.

## 9. Restore at least 500 million hectares of lost or degraded forests and agricultural land by 2030.

About one quarter of the world's agricultural lands are presently degraded. Lost or degraded forest landscapes account for about two billion additional hectares. Restoring these will enhance the natural capital that countries, companies and citizens depend upon for economic growth and human well-being. Restoring degraded agricultural land and lost or degraded forest is important for food security, biodiversity, rural livelihoods, watershed protection, and climate mitigation and adaptation. Restoring agricultural land can also reduce pressures on forested lands.

To implement this recommendation:

- National governments, working together with farmers, development banks, non-governmental organisations (NGOs) and the private sector, should commit to and start the restoration of at least 150 million hectares of degraded agricultural land, to bring this back into full productive use – for example, through agroforestry measures. This target could be scaled up over time, based on learning from experience. It is estimated that such action could generate additional farm incomes of US\$36 billion, feed up to 200 million people and store about 1 billion tonnes of CO<sub>2</sub>e per year by 2030.
- Governments, with the support of the international community, should commit to and start the restoration of at least 350 million hectares of lost or degraded forest landscapes through natural regeneration or assisted restoration by 2030. This could generate an estimated US\$170 billion per year in benefits from ecosystem services, and sequester 1-3 billion tonnes of CO<sub>2</sub>e per year.

## 10. Accelerate the shift away from polluting coal-fired power generation.

Coal remains the energy source for over 40% of the global electricity supply. The widespread use of coal partly reflects the use of subsidies which lower or hide the costs of fossil fuel use. Coal is often the most lightly taxed fuel, despite being the most polluting. Globally, pollution from burning coal is a contributor to the estimated 3.7 million premature deaths each year from outdoor air pollution, and coal production also causes ill health, injuries and deaths. There is increasing risk of coal sector



assets becoming “stranded” as climate and other policies make them less profitable. In the absence of clear policy signals, however, this risk is often beyond the investment horizon of capital providers. There are already signs that investments in a low-carbon energy system are rising, with renewables increasingly cost-competitive in a number of countries and regions, and increasing recognition of the costs savings and energy security benefits of energy efficiency improvements. But behavioural and institutional barriers often limit their uptake, so further policy action and assistance is needed to ensure more rapid deployment of low-carbon solutions.

To implement this recommendation:

- Governments should reverse the “burden of proof” for building new coal-fired power plants, building them only if alternatives are not economically feasible, bearing in mind the full range of financial, social and environmental costs associated with coal power.
- All countries should aim for a global phase-out of unabated fossil fuel power generation by 2050. High-income countries should commit now to end the building of new unabated coal-fired power generation and accelerate early retirement of existing unabated capacity, while middle-income countries should aim to limit new construction now and halt new builds by 2025.
- Governments and multilateral and national development banks should adopt an integrated framework for energy decisions, ensuring a public and transparent consideration of all the costs and benefits of different energy sources, including demand management options, based on consideration of supply costs, energy security impacts, health costs of air pollution, other environmental damage, risks related to climate change and technology learning curves.
- Governments worldwide should steer energy sector investments towards renewable energy sources, energy efficiency improvements and other low-carbon alternatives. Energy efficiency should be prioritised, given the cost savings and energy security benefits it provides.
- Governments should provide assistance to support workers, low-income households and communities in coal-dependent regions and carbon-intensive sectors that may be adversely affected by these policies, to ensure a just transition with appropriate social protection measures, using where relevant some of the revenues from carbon taxes and subsidy reform for this purpose.