THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

G7 leadership for sustainable, resilient and inclusive economic recovery and growth

An independent report requested by the UK Prime Minister for the G7

Summary

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This is an independent report by Nicholas Stern, I.G. Patel Professor of Economics and Government and Chair of the Grantham Research Institute on Climate Change and the Environment at the London School of Economics and Political Science. He was supported by a team at the Grantham Research Institute, led by Josué Tanaka and including Amar Bhattacharya, Hans Peter Lankes, Roberta Pierfederici, James Rydge, Charlotte Taylor and Bob Ward.

This summary contains high-level recommendations with more detail available in the forthcoming full report, supported by analytical background papers.

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Overview

Challenge, vision and overarching strategy at a critical moment in history

The COVID-19 pandemic is a continuing human tragedy. It has exacerbated the risks and vulnerabilities that had been building in the global economy. It follows a decade that was characterised by reduced investment, by slowing growth of productivity, by faltering employment, by weakening social cohesion, by increasing pressure on the public finances; and by accelerating destruction of natural capital. The world is consequently confronting an **interwoven set of challenges**: the devastating **health and social costs of the pandemic;** the **diminished prospects for economic growth and employment** against a backdrop of **rising public debt;** the mounting threats of **climate change, environmental degradation and biodiversity loss; growing inequality** that has been exacerbated by the pandemic; and **disrupted education** for 90% of the world's children. A failure to act on any of these dimensions will weaken progress on the others.

The Carbis Bay Summit offers a unique opportunity for the G7 to take bold action to 'build back better' – to realise the **growth and jobs story of the 21st century and ensure environmental sustainability.** The transition to a net-zero emissions, climate-resilient world represents not a cost or a burden but the greatest economic, business and commercial possibilities in modern times. If the world fails to seize this opportunity, the dangers and fragilities of the old economic model that were mounting before the COVID-19 crisis will become ever more severe. There could be a lost decade for development in poor countries and weak or stuttering recovery and growth for the world as a whole. This is therefore a special moment in history, offering the chance, indeed duty, for the G7 to lead **a globally coordinated recovery, driven by sustainable investment and innovation by both the private and public sectors.**

At the heart of the proposed vision for the economic response to the pandemic is a coordinated global programme of investment for recovery, reconstruction and transformation that can boost all forms of capital – physical, human, natural and social. This programme of investment, involving sustainable infrastructure development, the preservation and restoration of nature, and greater focus on innovation and skills, can provide strong economic multipliers to increase activity and jobs in the shorter run, and unleash discovery and productivity growth in the medium term.

The programme of investment will be **inclusive** in its new job opportunities and stronger growth, in its attention to the management of change, in its reduced pollution, and in its internationalism. And the growth and revenues will enable the strong investment in education and health that are central to justice and well-being and are critical to sustained recovery and growth.

Delivery of the requisite scale and quality of investment will require a **broad commitment and concerted actions on policy measures and on finance.** These include:

- A **supportive but prudent macroeconomic framework** that enables a strong recovery in investment, while at the same time responsibly managing debt and deficits over the medium term, including through enhanced international tax cooperation.
- **Structural policies that set expectations and a clear sense of direction.** These must include making faster progress on carbon pricing, the phasing out of fossil-fuel subsidies, introducing supporting regulations that accelerate the drive to net-zero emissions, valuing natural capital, and building climate and environmental resilience into all policies.
- **Innovation will be central** to change and can be directly supported through well-oriented and creative R&D and innovation institutions such as Mission Innovation and the International Solar Alliance. **Standards and regulations** can play a powerful role in complementing innovation policy. So too the **design of cities** and the development of **circular economies** and similar frameworks that are crucial to innovation at both individual and system levels. The key systems are cities, energy, transport, and land.

- Labour market and other policies to foster a **just transition** to a net-zero emissions and climate-resilient economy will also be crucial as rapid change will involve dislocation, in both production and consumption, requiring investment in and support for people and places.
- **The re-alignment of the financial system** to support sustainable growth, climate action, and responsibilities towards the environment and biodiversity**.**
- An urgent, concerted and enhanced international effort to **tackle the debt, fiscal and financing constraints of emerging market and developing countries.**

Acting together, based on a shared vision and strategy, will be critical in an interconnected world. Strong international cooperation around stimulating demand for goods and services, job creation, policy directions, technology and finance is an integral part of this vision. By acting together, the world will benefit from stronger demand expansion and investment recovery, economies of scale, learning by doing, lower costs for new technologies and the necessary collective actions on climate and biodiversity that are urgently needed. **Global collaboration** on tackling the health, economic and financial **challenges of COVID-19, including on vaccines and debt/finance**, particularly in support of the poorest countries, will be both crucial to the recovery and a key test of the multilateralism that is vital to the transformation to new forms of growth. Much of the action in this strategy will be greatly enhanced by, or require, **more effective use of international institutions**, which must be enabled to act on the necessary, and sustained, scale; they will be crucial catalysts and vehicles for building a better world.

This report

Part One of this report sets out the challenges and opportunities facing the world; Part Two the shared vision and strategy; and Part Three the priorities for action, which we also summarise below.

Priorities for action

The Carbis Bay Summit provides a crucial opportunity to set **specific priorities and targets as part of an integrated global agenda.** It must give momentum to a shared international vision for strong recovery and sustainable growth; provide policies for delivery; and mobilise finance for action.

Shared international vision for strong recovery and sustainable growth

- Ensure **a timely, effective and global roll-out of vaccines and treatments** based on principles of common humanity, mutual responsibility and self-interest. An immediate priority is **closing the $20 billion funding gap of COVAX** and providing adequate support to developing countries so that **effective vaccines and treatments would be available everywhere no later than the end of 2022**.
- **Deliver credible pathways to meet the stepped-up commitments** made by the G7 at President Biden's Leaders Summit on Climate and the Major Economies Forum on Energy and Climate on net-zero emissions by 2050 and emission reduction targets by 2030. This must include: the **preparation and submission of well-specified national determined contributions (NDCs) ahead of COP26;** putting in place **sufficiently strong and green recovery programmes** for delivery; recognising the dangers from attempts to 'backload' action.
- Support **a global target for nature with the protection of 30% of land and ocean areas by 2030,** accompanied by appropriate domestic targets.
- Set **a collective goal to raise annual investment by 2% of GDP above pre-pandemic levels for this decade and beyond** and **improve the quality of investment** to support a strong recovery and transformation of growth. For the seven countries, this would amount to an additional investment of around $1 trillion per year from now until 2030. That investment, if well executed, would have high returns in terms of productivity, new opportunities and the environment.

Policies for delivery

- **Commit to putting a strong price on carbon and to eliminating fossil-fuel subsidies no later than the target date of 2025**. This could include consideration of an international carbon price floor

among large emitters, such as the G20 and border adjustments for energy-intensive trade-exposed sectors.

- **Lead in the global energy transition by setting targets for zero-carbon power and road transport**; investing strongly in clean energy and energy efficiency at home and in developing countries; phasing out **unabated coal power generation domestically by 2030**; **ending overseas support for fossil fuel investments, starting with coal power generation**; and defining a clear phase-out strategy for fossil fuels other than coal, in line with the goals of the Paris Agreement. Foster and share research and development in energy and beyond.
- **Commit to a 'just transition';** ensure that the benefits and opportunities are shared widely; protect those that are most vulnerable to economic losses.

Finance for action

- **Strengthen international tax cooperation** to help bolster public finances and provide clarity on the global tax regime, including through the consideration of a minimum tax rate on corporate profits of 21%.
- **Accelerate the shift in the financial system by working together and with the private sector** to improve the availability of consistent, comparable, and reliable information on climate-related financial risks, including by supporting **mandatory disclosure**, strengthening risk management, supporting efforts to identify opportunities for green investments, and encouraging financial institutions to align their portfolios with the Paris Agreement goals.
- Act strongly to **alleviate the debt constraints of low-income and vulnerable countries.** This could include **extending the Debt Service Suspension Initiative**, requiring comparable treatment of the private sector and tackling over-indebtedness by **strengthening the G20 Common Framework for Debt Treatments,** reprofiling and reducing the cost of official debt, and considering the potential of debt-for-nature and debt-for-climate swaps.
- Make a **collective commitment to double climate finance, improve its quality, and raise the proportion of grants, to deliver on and go beyond the $100 billion per year target** that is critical to the success of COP26 and adequate support for climate action by developing countries.
- **Following the agreement of a new allocation of Special Drawing Rights of $650 billion, support re-allocation mechanisms** that can widen financing options for recovery programmes in low-income and vulnerable countries, support effective vaccination and health campaigns, and promote green transitions.
- **Enable the multilateral development banks (MDBs) to scale up support for a green recovery, the drive to net-zero emissions and climate adaptation/resilience**, **and the fight against biodiversity loss** through: an **accelerated IDA replenishment** in 2021; **more effective use of MDB balance sheets**; enhanced **private-sector finance mobilisation**; accelerated **alignment with the Paris Agreement**; and proactive **MDB capital increases** within a requirement to work better together.

The clarity of vision, the credibility and coherence of policies, the availability of appropriate finance and international cooperation have never been more important. Delay is dangerous. Ambition will be less risky than caution and strong progress will require decisive leadership and effective collaboration. There has never been a more crucial moment for leadership from the G7.

The G7 has the opportunity now to chart a **clear course of action for the next three years**, working closely with the Italian G20 Presidency and reaching out to the G7 and G20 presidencies that will follow in 2022 and 2023. **2021 can be a turning point towards a more prosperous and sustainable future.**

PART ONE: Challenges and opportunities

Challenges

The COVID-19 pandemic has exacerbated the risks and vulnerabilities that had been building in the global economy. It follows a decade that was characterised by reduced investment, slowing growth of productivity, faltering employment, weakening social cohesion, increasing pressure on the public finances and accelerating destruction of natural capital.

The world is consequently confronting a complex set of **interwoven challenges**:

- The devastating **health and social costs of the pandemic,** with the global number of reported COVID-19 cases at end-April 2021 exceeding 150 million (34% of these in the G7), resulting in over 3.2 million deaths (33% in the G7), and an additional 150 million people in the world falling into extreme poverty. Mounting hunger is further undermining population health. In 2020, the World Food Programme estimated that the number of people in low- and middle-income countries facing acute food insecurity would nearly double to 265 million by the end of the year. This builds on a worrying reversal of development since the mid 2010s, with the number of chronically undernourished people increasing by almost 60 million between 2014 and 2019. The pandemic has also **disrupted education** for 90% of the world's children.
- The **diminished prospects for economic output and employment** against a backdrop of **rising public debt**. Global output is estimated to have contracted by 3.3% in 2020 (with some countries seeing their biggest contractions on record) amidst what was already a secular slowdown in the G7 associated with declining productivity growth and weak private investment. The unemployment rate in G7 countries is projected to rise from 4.3% in 2019 to 6.7% in 2021. Global government debt rose to 97% of GDP in 2020 for the first time on record, compared with 84% in 2019, according to the International Monetary Fund, though debt service remains relatively moderate.
- The rising threats of **climate change, environmental degradation and biodiversity loss,** documented by mounting scientific evidence**,** with the decade from 2011 to 2020 being the warmest on record, increasing severity of losses from extreme weather events and fires, a **loss of natural capital of over 40%** in the last three decades, and **1 million species at risk of extinction.** It is important to note in this context that climate change and environmental degradation have a much sharper impact on poor people and poor countries. Furthermore, the increasing pressure on the natural environment, through land-use change and consumption and production patterns, has been identified as a **leading driver of the risks of infectious diseases**.
- **Growing inequality** that has been exacerbated by the pandemic, with lower-paid workers hit particularly hard, including the informally employed, women, immigrants, and low-skilled workers. For example, while women hold 39% of global employment, they have accounted for 54% of overall job losses due to the pandemic, according to McKinsey. Inequality has also been exacerbated as a result of assets held by the wealthiest (mostly property and shares) rising in value, while public spending that supports the poorest has been squeezed. There has been substantial divergence between advanced economies and emerging markets and developing countries in terms of impact and capacity to respond, including uneven access to the vaccines and treatments. Divergent recoveries also create the potential for unexpected policy reactions and spillovers.

Forceful and urgent action at scale is required both to tackle shorter-term economic, social and health impacts and to set the world on a path of growth that is economically and environmentally sustainable over the medium and longer term.

Opportunities

As the world tackles the COVID-19 pandemic, there is a unique opportunity to realise the **growth and jobs story of the 21st century and ensure environmental sustainability.** It will be defined by the investments, innovation, and policies that together underpin a sustainable, resilient and inclusive recovery and growth.

The transition to a net-zero emissions, climate-resilient world represents not a cost or a burden but the greatest economic, business and commercial opportunities in modern times. Technical progress and cost reductions have already been remarkable, as reflected, for example, in the development of digital technologies, and in solar and wind energy. This historic growth opportunity is acknowledged by and reflected in the stimulus and recovery packages of individual G7 countries.

The Carbis Bay Summit offers a unique opportunity for the G7 to take bold action to 'build back better'. The realisation of this opportunity requires **fundamental systemic change and significant investment, together with decisive leadership** to manage the transformation in ways that build social cohesion and create greater prosperity and well-being for all. The large gains to be had from determined action, however, do not imply that the task is easy.

The world has already committed to ambitious **Sustainable Development Goals** (SDGs) for 2030, and a growing number of countries are setting **net-zero targets** for their greenhouse gas emissions. These targets are mutually reinforcing and provide a **strong signal to markets and businesses** to align their strategies and investments with net-zero and the SDGs. Businesses are already taking advantage of opportunities and working together to accelerate action. Public support for green solutions is growing, green finance is expanding, interest rates are low and an increasing number of companies are developing green business strategies and supporting the growth of green products and supply chains. Momentum is building. The SDGs and bold climate action can be **principal drivers of investment and innovation** in the decades ahead. There is increasing recognition that change, which might have looked difficult or impossible a few years ago, is not only achievable but also full of reward for individuals, businesses and society.

If the world fails to seize this opportunity, the dangers and fragilities of the old economic model that were mounting before the COVID-19 crisis will become ever more severe. There could be a lost decade for development in poor countries and weak or stuttering recovery and growth in the world as a whole. This is therefore a special moment in history, offering the chance, indeed duty, for the G7 and the world to lead **a global, coordinated recovery, driven by sustainable investment and innovation by both the private and public sectors.**

PART TWO: Vision and strategy

Vision

The world must act forcefully on **four interrelated priorities** to overcome the impact of the COVID-19 crisis and set a path to sustainable, resilient and inclusive growth:

- Overcoming the pandemic and strengthening **health** systems
- Restoring **growth and delivering the jobs of the future**
- Confronting inequality and fostering **social cohesion, inclusion and gender equality**
- Tackling at scale the immense threats of **climate change, biodiversity loss and environmental degradation**.

Much will be shaped by governments, but the private sector will be critical to the response to all four priorities.

Pursuing these interrelated priorities will require major initiatives and action at scale, with urgency, and in an integrated and well-coordinated way. Given the growing COVID-19 crisis in many emerging market and developing countries, international cooperation is first and foremost required to ensure a timely, effective and global roll-out of vaccines and treatments, based on principles of common humanity, mutual responsibility and self-interest. Unless this is achieved, the likely development of virus variants will prolong the pandemic and delay the shift to recovery. As the communiqués of the Development Committee, International Monetary and Financial Committee (IMFC) and G20 Finance Ministers all stressed in April 2021, strong international cooperation is needed "to accelerate vaccine production and support affordable and equitable distribution to all", including "support to the work of the World Health Organization, the Access to COVID-19 Tools (ACT) Accelerator collaboration, and its COVAX Facility." An immediate priority is closing the $20 billion funding gap of COVAX and providing adequate support to developing countries so that effective vaccines and treatments are available everywhere no later than the end of 2022.

At the heart of the proposed vision for the economic response to the pandemic is a coordinated global programme of investment for recovery, reconstruction and transformation that can boost all forms of capital – physical, human, natural and social. This programme of investment, involving sustainable infrastructure development, the preservation and restoration of nature, and greater focus on innovation and skills, can provide strong economic multipliers to increase activity and jobs in the shorter run, and unleash discovery and productivity growth in the medium term. It constitutes **the only credible path to longer-term sustainable growth that can deliver for people and the planet**. It is indeed the growth story of the 21st century.

That programme will be inclusive in its new job opportunities and stronger growth, in its attention to the management of change, in its reduced waste and pollution, and in its internationalism. And the growth and revenues will enable the strong investment in education and health that are central to justice and well-being and are critical to sustained recovery and growth.

Investments in physical and natural capital are the immediate focus of this strategy for sustainable recovery and growth, but they are interrelated with and not separate from efforts to improve human and social capital. On the contrary, the strategy embodies and enables actions on these issues. Thus, **education and health** are crucial priorities for the fiscal space created within a medium-term framework, and for policies to incentivise private investment. Investment in health systems will be vital for managing and containing the future impacts of COVID-19 and relaunching the economy. **Retraining and the learning of new skills** are both necessary to create and drive an enhanced knowledge economy and innovation, and to managing dislocation arising from structural change. Further complementary work should be undertaken by the G7 to identify specific actions in education and health, including a focus on skills development and innovation to support the proposed path to sustainable recovery and growth.

Acting together, based on a shared vision and strategy, will be critical in an interconnected world. Strong international cooperation around stimulating demand for goods and services, technology and finance is an integral part of this vision. By acting together the world will benefit from stronger demand expansion and investment recovery, economies of scale, learning by doing, lower costs for new technologies and the necessary collective actions on climate and biodiversity that are urgently needed. The returns to **collaboration and innovation are uniquely powerful** at this moment in history, with high unemployment following the pandemic, the need to ensure global access to vaccines, the risk of a lost decade of development, and the threats of climate change, biodiversity loss and environmental degradation. A failure to act on any of these dimensions will weaken progress on the others.

Ambition will be less risky and yield far greater returns than caution, and strong progress will require decisive leadership. The G7 has the opportunity now to chart a clear course of action for the next three years, working closely with the Italian G20 Presidency and reaching out to the G7 and G20 presidencies that will follow in 2022 and 2023. **2021 can be a turning point towards a more prosperous and sustainable future.**

Strategy

The task now is to move from rescue to sustained economic recovery. A clear and coherent strategy for coordinated action to 'build back better' includes the following six components, which drive the **scale and quality of the investment programme**:

1. **Anchoring plans for growth and investment strategies in the SDGs and environmental sustainability (drive to net-zero emissions, climate adaptation/resilience and nature/biodiversity targets), starting with a strong and coordinated green recovery.**

   All G7 members have now committed to net-zero emissions of greenhouse gases by 2050, and all have increased ambition on commitments on emissions targets by 2030 at President Biden's Leaders Summit on Climate and the Major Economies Forum on Energy and Climate. The G7 is thus well positioned to seek an ambitious global commitment, working with other major emitters including the G20, with China of special importance; so too India and other emerging markets and developing countries. The G7 can lead in setting out long-term strategies towards this collective goal, and in putting in place **credible pathways to meet the stepped-up commitments**. This must include: the **preparation and submission of well-specified nationally determined contributions (NDCs) ahead of COP26;** putting in place **sufficiently strong and green recovery programmes** for delivery; and recognising the dangers from attempts to 'backload' action. G7 countries should also set out their climate adaptation/resilience and nature/biodiversity strategies. The valuation of natural capital must go beyond its contribution to carbon sinks and reflect the full range of associated environmental, health and economic benefits. Of special importance to a sustainable future will be the G7 contributions in support of the most vulnerable countries and those with the greatest endowments of natural capital.

2. **Scaling-up quality investments to boost output and jobs in the short term and positioning the world on a new growth trajectory consistent with the above targets.**

   Such investments in sustainable infrastructure and natural capital will be critical for economic recovery and transformation, and for action on climate, biodiversity and environmental degradation. Particular attention needs to be given to establishing policy frameworks that unlock investments in sustainable infrastructure, create market opportunities for private sector investment and finance, promote gender equality, and support a just transition to a net-zero emissions and climate-resilient economy. Significant opportunities can be found across all sectors, but particularly energy, buildings and transport.

3. **A supportive but prudent macroeconomic framework that enables fiscal stimulus for the recovery and a strong increase in investment, while at the same time responsibly managing debt and deficits over the medium term.**

   These aims can and should be mutually supportive, with investment of the right quality and scale driving growth, jobs and public revenues, and confidence in medium-term fiscal responsibility supporting investment. Fiscal policy, on both the revenue and expenditure sides, can promote

sustainability and inclusion, and boost investment in all forms of capital. There is significant scope to boost fiscal revenues everywhere through international tax cooperation. Sustainable public finances require particular care in managing debt levels, as well as in the proper use of debt. Current low interest rates provide an opportunity both to drive investment and growth and to maintain clear principles for sustainable public finance.

4. **Structural policies that set expectations and a clear sense of direction. This must include making faster progress on carbon pricing, phasing out fossil-fuel subsidies, introducing supporting regulations that accelerate the drive to net-zero emissions, valuing natural capital, and building climate and environmental resilience into all policies.**

   Public policy can foster R&D and innovation and work with markets to accelerate the technical progress needed to achieve climate targets. Labour market and other policies to foster a **just transition** to a net-zero emissions and climate-resilient economy will also be crucial as rapid change will involve dislocation, in both production and consumption, requiring investment in and support for people and places. The changes embodied in the strategy are often necessary and beneficial, but active policy is required to secure the skills and jobs necessary for the 21st century economy. This means supporting workers in acquiring new skills to enable those affected by change to participate in the new economy. Renewed global cooperation on a trade system that is perceived to be fair and that eliminates barriers to shared environmental solutions will be critical for recovery and sustained transformation.

5. **The re-alignment of the financial system to support sustainable growth, climate action, and responsibilities towards the environment and biodiversity.**

   Private finance is moving in this direction and will be a powerful force for change. The financial system must work to deliver the right kinds of finance rapidly, on the right scale and in the right place, with a clear and transparent assessment of risks. This includes the quantification of corporate and sovereign exposure to zero-carbon transition and climate risks.

6. **An urgent, concerted and enhanced international effort to tackle the debt, fiscal and financing constraints of emerging market and developing countries.**

   Low-income countries, including fragile and conflict-affected states, have been severely harmed by the pandemic and are the most vulnerable to the impacts of climate change, biodiversity loss and environmental degradation. G7 leadership will be critical to the resolution of the debt difficulties of poor and vulnerable countries, to the **delivery of the $100 billion per annum climate finance commitment by developed countries** under the United Nations Framework Convention on Climate Change, and to the scaling up of support from the international financial institutions. Multilateral development banks working with the private sector can play an important role in both unlocking investment opportunities and mobilising the finance needed. Low interest rates and 'secular stagnation' **signal that there are more than enough global savings to finance the needed investment.** Low interest rates also make public debt more affordable, with public borrowing enhancing the medium- to longer-term sustainability of debt through improved productivity of public assets and enabling higher productivity of private assets.

While the transition to a net-zero emissions and climate-resilient economy brings a broad range of economic and environmental benefits, there are **risks and challenges,** which need to be understood, addressed and mitigated. For example, dislocation challenges resulting from the shift from fossil fuels to zero-carbon energy will require particular attention and a focus on a just transition. The **distributional impacts** of policies related to the transition need also to be carefully understood to ensure equity in terms of both who bears the costs and who accesses the benefits of zero-carbon solutions. Governments should avoid the risks of 'picking winners' and instead focus on **creating the enabling environment for innovation**. This includes, for example, providing backbone infrastructure, such as transmission grids, and signalling and establishing demand for solutions that contribute to the creation of new markets, such as alternatives to the internal combustion engine, cleaner and more efficient cooling and heating, and environmentally-friendly agriculture.

Much of the action in this strategy will be greatly enhanced by, or require, **more effective use of international institutions**, which must be enabled to act on the necessary, and sustained, scale; they will be crucial catalysts and vehicles for building a better world.

A clear connection should be established between the **G7 summit and COP26.** The setting of a strong basis for a sustainable recovery by the G7 will provide a crucially supportive context to an ambitious outcome from a committed COP26. Progress at COP26 will accelerate the transformation to a net-zero emissions and climate-resilient economy. **COP26 must be a landmark** in international decision-making and cooperation.

PART THREE: Investment, policy and finance

Investment

For the recovery to be strong and sustained it must be driven by investment. Output growth is closely associated with the investment-to-GDP ratio and the long-term trend decline in that ratio has undermined productivity and growth across the world. Further, as a result of the pandemic, investment has declined more than output in all G7 countries except Germany and Japan.

It is now important to ensure that investment levels are restored to pre-pandemic levels, and then increased still further for the augmentation and transformation of all forms of capital. In our assessment, to both raise growth and accelerate the drive to a net-zero emissions and climate-resilient economy, global investment needs to be **increased and sustained above pre-pandemic levels by around 2% of GDP p.a. over this decade and beyond**. This calculation takes into account several factors, all of which point to increases of similar orders of magnitude. First, investment growth had been on a secular decline since the global financial crisis of 2008–9 in both advanced and emerging market and developing economies, and the investment rebound following the collapse in 2020 is expected to be much weaker in 2021 than in 2010. Second, there has been a persistent gap in infrastructure spending – key to both growth and transformation – in both developed and developing economies that has been estimated at 2–3% of global GDP. Third, as documented in the main report and summarised in the Appendix, there are significant opportunities for scaling up sustainable investments to accelerate the transition to a low-carbon and climate-resilient economy and restore natural capital. This 2% p.a. increase would enable the investments in green physical and natural capital presented in the Appendix and will involve establishing the right set of expectations, incentives and finance to restore investment levels.

For the G7 countries, a 2 percentage-point step-up would reverse the decline in the investment ratio over the past decade, driven in part by cuts in public investment, and would be much less than the cumulative decline over previous decades. For the seven G7 countries, this would amount to **an additional investment of around $1 trillion per year from now until 2030**. That increment, if well executed, would have high returns in terms of productivity, new opportunities and the environment.

While the majority of investment will be in the private sector, public investment will have to play a key role in the early period, particularly for sustainable infrastructure. For emerging market and developing countries, these magnitudes will likely be higher, given the range of investments required to meet the SDGs. For China the main challenge will be to change the composition, rather than the level of capital.

A focus on quality investments across a range of vital physical, natural and intangible assets can drive both recovery and transformation to a sustainable, resilient and inclusive economy. Many of the investments necessary for sustainable recovery and growth can be quickly implemented, can mobilise significant private sector involvement, are labour-intensive in the short run, can promote greater equality of opportunity, and can drive productivity growth through their strong innovation potential in the medium to long run. These investments have large net economic and social benefits and strong potential to improve well-being across its many dimensions. The high economic multipliers of these investments will also be a key driver of economic recovery, job opportunities and enhanced future revenues. The IMF estimates the total output effect over two years of public investment in a period of high uncertainty to be a multiplier of 2.7, assuming good quality investments and debt and financing conditions allowing the private sector to be responsive (IMF Fiscal Monitor, October 2020).

If countries act together, these investments can deliver quadruple wins: 1) **recovery** (a Keynesian demand recovery story, with countries mutually benefiting from increased demand); 2) **growth** (with strong expectations around the shared strategy driving sustained investments); 3) **innovation** (with learning-by-doing and cost reduction from scaling up, which will be much stronger if countries move in similar directions); and 4) **tackling the immense threats from climate change, biodiversity loss and environmental degradation**.

A programme of investment in the following action areas can drive recovery, deliver financial and broader economic returns, promote strong and sustainable growth, protect nature and biodiversity and support an effective transformation to a net-zero emissions and climate-resilient economy:

- **Electricity generation from renewable energy sources, storage and network development** (including grids) underpinning an accelerated transition to a zero-carbon energy sector with declining costs to deliver affordable energy.
- **Energy efficiency of buildings and industry** through retrofits, enhanced standards for new construction aiming at zero-carbon buildings and the application of advanced industry production techniques, design and digital technology.
- **Transport,** including scaling up of charging infrastructure for electric vehicles supporting a transition to zero-emissions road transport, shifting to sustainable aviation (including new fuels) and electric aeroplanes, scaling up green shipping fuels and zero-emissions vessels.
- **Accelerated innovation** to transform 'hard to abate' sectors such as steel, cement, and air and sea transport, to include hydrogen and carbon capture, utilisation and storage (CCUS).
- **Adaptation and resilience,** including making infrastructure, both physical and natural, more resilient to a changing climate, strengthening early warning systems and enhancing disaster risk preparedness and response (including timely disaster finance).
- **Nature protection and restoration,** including forests, peatlands, mangroves, seagrasses and saltmarshes, through investment in land, establishment and maintenance of protected areas, and restoration of degraded landscapes, supported by the necessary incentives, institutional changes and collaboration with local communities.
- **Productive, sustainable and efficient agriculture** to support livelihoods, improve nutritional and health outcomes, and ease pressure on natural resources**,** including sustainably enhancing yields, enabling a shift to regenerative practices, diversifying alternative protein production, and reducing food loss and waste.

The Appendix provides a preliminary assessment of investment requirements at the global and G7 levels for each of these areas, together with a summary rationale.

Cross-sectoral actions will play a major role, including developing **circular economy models** across economic sectors, and **digitalisation,** to increase inclusion, manage complex systems, and increase productivity and new working methods.

Reflecting the urgency and scale of action required to position the world on a sustainable trajectory, the full report identifies a set of specific targets and measures in the short to medium term for consideration by the G7 in each of these investment areas. For example, **a global target for nature should call for the protection of 30% of land and ocean areas by 2030** (in line with the commitments made by over 50 countries as part of the High Ambition Coalition for Nature and People), **accompanied by appropriate domestic targets**. The full report also examines and demonstrates the rationale for these investments in terms of productivity and efficiency, employment, climate change mitigation and adaptation, and social and health benefits. The description of each investment area identifies the main barriers to scaling up and the policy measures required to overcome them. Overall, these represent investments with high potential for strong economic, social and environmental returns.

Driven by appropriate policies, and supported by foundational public investments, these investment areas can provide significant market opportunities for private-sector activity and financing. Electricity generation and energy efficiency, which account for a high share of the proposed investment (see Appendix), would involve the private sector heavily. Most areas would include close partnerships between the public and private sectors. For example, public investment in R&D on hydrogen energy and CCUS would provide a solid base for establishing market-driven growth.

Investment in these areas both addresses the main challenges in realising net-zero emissions and enables the many opportunities for innovation now emerging. Thus it directly supports COP26 priorities,

including accelerating the energy transition and the move to zero-emissions road transport, adaptation and resilience, and the safeguarding of ecosystems and the protection of natural habitats.

Drawing through and delivering these investments requires macroeconomic/fiscal frameworks, specific policies, and finance.

Enabling frameworks for investment-led sustainable, resilient and inclusive recovery

The pandemic is causing historically severe shocks, both human and economic. The global fiscal response, largely for rescue and short-term support, has been equally unprecedented, exceeding $16 trillion to date for health measures and to support incomes, employment and financial lifelines for businesses, according to the IMF (as at March 2021).

As the world moves out of rescue and towards recovery, **the challenge for policy is threefold:**

- To stimulate recovery and growth through investment while preserving fiscal sustainability
- To change the level and composition of investment, consistent with resilience and environmental sustainability
- To ensure that the transition is fair and inclusive, contributing to a decline in inequality and promoting access to opportunity across gender, race and geography.

The G7 can respond strongly to this set of challenges by:

- **Orienting and calibrating the near-term fiscal stimulus** to reduce unemployment quickly, particularly via investment, including by the public sector, and recognising regional differences and needs within countries.
- **Supporting an economy-wide and lasting step-up in green investments based on a multi-level strategic infrastructure investment plan.**
- **Setting a medium-term framework for fiscal sustainability.**
- Complementing the macroeconomic stance with **policies that shift relative prices away from the dirty and towards the clean,** thereby incentivising the supply of and demand for green solutions; **manage the distributional impact within the population and across locations;** and **ease labour mobility.**

Specific measures that should be carried out by the G7 include:

- Some **frontloading of public investment** aimed at creating high-return assets financed by government borrowing that can pave the way for a **sustained expansion in private investment.**
- Developing **credible medium-term consolidation plans** that include **committing to both growth and fiscal responsibility**, anchoring investor expectations and offering both predictability and flexibility. Frameworks might contain fiscal rules and planned paths to restore public finances as **growth returns.**
- **Appropriate tax and other fiscal reforms** consistent with a path to net-zero and climate resilience, promoting inclusion and greater equity, stimulating private investment and innovation, and buttressing fiscal sustainability. This could include carbon pricing as a fiscal measure.

It is crucial for investment that fiscal policy and public debt are perceived to be sustainable. Understandably, there are concerns over both the build-up of public debt and possible inflationary pressures as a result of the considerable demand-side stimulus and monetary accommodation. The medium-term fiscal outlook therefore needs to contain a credible path towards consolidation.

The lesson from the global financial crisis of 2008–9 is that, despite short-term deficits, fiscal policy that focuses initially on the demand and growth conditions for economic recovery is more likely to bring debt ratios under control over the medium term than a focus on sharp immediate reductions in the deficit itself.

Measured inflation has increased, following record-low prices for key commodities a year ago. However, that base effect as well as some expected volatility in the coming period should be short-lived, given subdued labour markets and continued economic slack, according to the IMF's World Economic Outlook of April 2021. **Markets generally continue to take the view that interest rates will remain 'low-for-long'**, and inflation swaps reflect confidence that inflation will remain moderate. Guidance from the major central banks is reinforcing these expectations.

Aligning policy with structural change

Policy must be aligned with the nature and timing of structural change. The G7 should lead the way on major adjustments in structural policies – policies that impact the composition of economic activity directly or through relative prices – to accelerate progress towards net-zero emissions and climate resilience, while boosting recovery and social cohesion.

The G7 can play an important leadership role on carbon pricing. Putting a strong **price on carbon**, through a tax or emissions trading system and including carbon-offset markets, is a crucial, powerful and economically efficient mechanism to shift energy use towards lower-carbon sources – directly and through innovation. It can generate additional fiscal revenues or can be designed to be revenue-neutral. Carbon pricing must be complemented by **a range of policies and regulatory measures that provide clarity and confidence on future expectations, at the economy-wide and sectoral levels. It must take into account distributive effects and transition costs**. The strength, clarity and stability of such signals are key to the pace of scaling-up and to mobilising private sector activity and finance. As noted by Kristalina Georgieva, Managing Director of the IMF, consideration should be given to "an international carbon price floor among large emitters, such as the G20". With implementation of carbon pricing, consideration also needs to be given to border adjustments for carbon-intensive, trade-exposed sectors.

In particular, it is urgent that **subsidies for fossil fuels are phased out,** as they exacerbate the problems to be tackled and function as a negative carbon price. They are damaging and inefficient. Current volumes of subsidies represent a multiple of the revenues from carbon pricing ($180 billion in fiscal support in the OECD area, or more than $5 trillion globally when factoring in externalities, as per the IMF). Eliminating these subsidies, including externalities through fiscal measures, would generate a fiscal gain of around 4% of global GDP. This is substantial in the context of current revenue mobilisation needs.

Reflecting the rising urgency to accelerate the reduction of greenhouse gas emissions from fossil fuels, the **G7 should lead in the global energy transition by setting targets for zero-carbon power and road transport**; investing strongly in clean energy and energy efficiency at home and in developing countries; phasing out **unabated coal power generation domestically by 2030**; **ending overseas support for fossil fuel investments, starting with coal power generation**; defining a clear phase-out strategy for fossil fuels other than coal, in line with the goals of the Paris Agreement; and foster and share research and development in energy and beyond. Policies and structural/institutional reforms and transparency should **promote competition** to limit lobbying from vested interests seeking rents in a more active policy and regulatory environment.

Strong action to halt and reverse biodiversity loss and emissions from agriculture is also needed to secure the productivity, resilience and security of the global economy, and for its inherent value. Nature-based solutions could provide an estimated 30% of the emissions reductions needed to limit global warming to 2°C, while playing a critical role in adaptation to climate impacts. The G7 should increase the scale and catalytic use of public climate finance for protection and restoration of ecosystems. Decisive action is also needed on making an **appropriate valuation of nature**, in line with the findings of the Dasgupta Review on the economics of biodiversity, including incentivising and supporting the **integration of climate and nature risk into investor decisions**. Market and legislative tools can also be leveraged to strengthen international rules and create disincentives for investment in unsustainable practices, such as commitments to **deforestation-free supply-chains** and the introduction of **import mandates**.

Both stronger policy and further technological innovation are needed to reach deep decarbonisation goals, with one complementing the other. Innovation will be central **to change and can be directly supported through well-oriented and creative R&D and innovation** institutions such as Mission Innovation and the International Solar Alliance. **Standards and regulations** can play a powerful role in the

complementing of innovation policy. So too the **design of cities** and the development of **circular economies** and similar frameworks that are crucial to innovation at both individual and system levels. The key systems are cities, energy, transport and land.

It is important that the post-pandemic recovery and the transition to a net-zero emissions and climate-resilient economy are, and are perceived to be, **'just'**, both for ethical reasons and to maintain support within society. **This means ensuring that the benefits and opportunities are shared widely, while protecting those who are most vulnerable to economic losses**. Committing credibly and in advance to managing dislocation, especially when concentrated in particular locations, will be a crucial part of this process and will involve investment in places and people. It will also be important to tackle inequalities between countries, and particularly to ensure that poor and fragile states are not left behind.

Finance

Public finance has a crucial role in supporting demand, enabling investment and helping to shift incentives economy-wide. The design of public finance is also important because of the signals it sends about the stability of the macroeconomic framework. The perception of a lack of medium-term fiscal sustainability deters private investment and would reduce the output and jobs multipliers associated with fiscal action. Public expenditure frameworks, for instance in planning and procuring infrastructure, should reduce existing gaps with respect to efficiency benchmarks. And tax policy should help ensure a revenue buoyancy that is sufficient – and seen to be sufficient – over the medium term to support fiscal consolidation. In that context, closer international tax cooperation could help to bolster public finances by providing clarity on the global tax regime, including through the consideration of a minimum floor for corporate taxation. A convincing proposal that has been made would be to set the minimum tax rate on corporate profits at 21%.

Finance ministries will be central in these efforts and they will need to ensure that climate is mainstreamed into their operations. It is important in this context to **ensure that the policy and investment components of recovery plans support the Paris Agreement goals.** The Coalition of Finance Ministers for Climate Action, currently involving over 60 countries, is helping finance ministries accelerate the mainstreaming of climate into macroeconomic policy, fiscal planning, budgeting, public investment management and procurement practices; developing climate-oriented fiscal tools; and promoting the mobilisation of private sources of climate finance. And there are potentially powerful cost-reduction effects from sharing sustainability standards around procurement. Furthermore, reflecting the growing role of cities in developing and implementing sustainable, resilient and inclusive action at the local level, close attention to strengthening sub-national finance capacity is required.

Transforming the financial system is a major component of action to help both scale up and shift the composition of investment, and also enhance its quality. This is reflected in the work of the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) and in the COP26 Private Finance Strategy, which both aim to ensure that every financial decision takes account of climate change.

Key finance actions that should be carried out by the G7 to accelerate the transformation of the financial system include:

- **Working together with the private sector** to improve the availability of consistent, comparable, and reliable information on climate-related financial risks, including by:
  - **Supporting mandatory disclosure.** This involves making the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) mandatory and complementing this with a new regulatory focus on climate transition plans for large companies and financial institutions within clear time horizons and annual accountability mechanisms.
  - **Strengthening risk management.** This involves developing the activities of the NGFS and encouraging central banks to further strengthen the analytical tools in the financial sector to assess climate-related risk, and requiring all financial institutions (insurance, banks, funds) to include climate risk assessment as part of the banking supervision function.

- **Supporting efforts to identify opportunities for green investments.** This will involve strengthening and unifying green and ESG standards and protocols for measurement and transparency of the sustainability of all investment products.
- **Stepping-up sovereign green/sustainable bond issuance** to finance the recovery and develop the green finance market.
- **Encouraging financial institutions to align their portfolios with the Paris Agreement.**

In G7 countries, **the private sector is already allocating finance towards specific market segments,** where the combination of declining capital costs and favourable investment conditions is becoming established due to sound policy and clear regulatory signals. This positive trend must be accompanied by the curtailment of financing for coal investments.

The role of public finance will remain crucial, however, particularly in areas where policy and regulatory risk is perceived to remain high, for example due to the lack of established markets, the long-term nature of investments or high early-stage or first-mover costs. In this case, public policy and innovative finance will be key to accelerating the mobilisation of private-sector finance. Infrastructure and development banks, national and international, could have a significant role in this context. The public sector has a major role in shifting perceived risks and opportunities associated with key assets. The G7 will need to assist emerging market and developing countries in tackling their greater debt and finance constraints as a result of the pandemic and embark on programmes of green recovery and transformation. At a time when the world was hoping to make quick progress towards the SDGs and net-zero emissions, the needs of emerging market and developing countries have increased by more than $2.5 trillion as a result of the pandemic, according to the Managing Director of the IMF.

Accordingly, there is a considerable risk that:

- Many, especially the poorer countries, will be unable to access vaccines, provide health care, pay their debts and restart their economies.
- The increase in poverty rates caused by the pandemic will be lasting and deeply scarring.
- There will be little or no capacity to embark on a climate path consistent with the Paris Agreement for a long time to come.

As part of G7 global support and cooperation, the following actions should be carried out:

- Acting strongly to alleviate the debt constraints of low-income and vulnerable countries. This could include extending the **Debt Service Suspension Initiative**, requiring comparable treatment of the private sector and tackling over-indebtedness by strengthening the G20 Common Framework for Debt Treatments, reprofiling and reducing the cost of official debt, and considering the potential of debt-for-nature and debt-for-climate swaps.
- **Collectively committing to double climate finance, improve quality, and raise the proportion of grants, to deliver on and go beyond the $100 billion per year UNFCCC target that is critical to the success of COP26; and a commitment to adequate support for green recovery and climate action by developing countries.** With over half of the 70 low-income countries at high risk of debt distress or in debt distress, the role of grants and concessional finance is particularly important for these countries and those in fragile and conflict situations with a high incidence of poverty, many of which are where the impacts of climate change are already the most severe. Bilateral climate finance plays a crucial role in building capacity and governance, and support for adaptation, biodiversity protection and natural capital preservation. And in fragile and conflict situations, support for scaling up distributed renewable energy can address fundamental development needs as well as climate goals.
- Strengthening support to emerging market and developing countries to formulate **long-term strategies for decarbonisation, climate adaptation/resilience and biodiversity with dedicated funding**.

- Following the agreement of a new allocation of Special Drawing Rights of $650 billion, **supporting re-allocation mechanisms** that can widen financing options for recovery programmes in low-income and vulnerable countries, support effective vaccination and health campaigns, and promote green transitions.
- **Enable the multilateral development banks (MDBs) to scale up support for a green recovery, the drive to net-zero emissions and climate adaptation/resilience, and the fight against biodiversity loss** through: an **accelerated IDA replenishment** in 2021; **more effective use of MDB balance sheets**; enhanced **private-sector finance mobilisation**; accelerated **alignment with the Paris Agreement**; and proactive **MDB capital increases** within a requirement to work better together.
- Calling upon the **IMF and the World Bank to fully integrate climate into surveillance/development assessments,** including the implications for the drive to net-zero emissions and for climate resilience, and the monitoring of financial systems' exposures to climate and environmental risks when conducting Financial Sector Assessment Programme (FSAP) and Article IV consultation.

CONCLUSION: The leadership of the G7 at a special moment in history

The transition to a zero-emissions and climate-resilient world provides the greatest economic, business and commercial opportunity of our time. This historic growth opportunity is increasingly reflected in initiatives by individual G7 countries. But, as the OECD has shown, the overall commitment to sustainability in COVID-19 rescue and recovery packages is not yet sufficiently strong. Now is the time for the G7 to embark on further joint actions for a **safer, stronger, healthier and more dynamic world**. The next decade could mark a transformation to a much better path of growth and development: sustainable, resilient and inclusive. However, if we as a world are to realise the better outcome, there must be determined action across all the fronts described in this report; just choosing a few 'items from the menu' would simply fail to deliver on the scale and urgency required. Particular focus must fall on linking the immediate macroeconomic imperatives with the medium-term structural requirements to effectively manage transition. This will require coordinated policies and institutional reform.

G7 countries have strong resources, skills, influence in international organisations, innovation, policy and analytical capacity. Their actions together, at scale, serve as powerful examples. Together, on the basis of G7 example and leadership, the world can build a new form of growth and development that is far more attractive than what went before. But this requires investment across a whole range of activities and across the world. Recovery, growth, innovation, climate and environmental benefits will all be much stronger with the world acting together. **There has never been a more crucial moment for leadership from the G7**.

Appendix: Investments for green recovery and transformational growth

This Appendix summarises the results of a detailed review of investment opportunities that would support a transition to net-zero and climate-resilient growth, as described in the full report. These numbers do not cover the whole 'investment universe', and some types of investment would be expected to decline while green investments grow. The numbers in this table are therefore not directly comparable to the increase in the macroeconomic investment ratio proposed in this report.

Investment area	Investment rationale CO_2e reduction by 2030 (vs. BAU with no investment)	Public/ private	Investment estimate* ($ trn p.a.)	
			Global	G7
Energy transition				
Electricity generation, storage and networks • Solar and wind generation and storage • Upgrade and extend transmission networks Solar and wind installation rate needs to double by 2025 to meet growing demand from electrified transport and heat	• **Solar/wind lowest cost** new generation in **73% of countries** (by GDP) • Solar/wind/batteries **further 30-60% cost declines** over 2020s, undercutting price of **existing** coal/gas plants**.** 70% current coal plants economically stranded by 2025 • **Solar/wind deliver 3x more jobs/$ spending** vs. fossil • Potential for over **40% reduction in power emissions** underpinning decarbonisation of transport and industry	Mostly private	1.5–1.6	0.4–0.5 (25%)
Energy efficiency in buildings and industry • Building insulation, low-carbon efficient heating and cooling • Shift to net-zero carbon buildings • Efficient industrial energy equipment and onsite renewable energy	• **Up to 50%** building energy savings. Tackle **fuel poverty** • **Reversible heat pumps cost competitive** with gas boiler and air conditioner • **10-20%** energy usage reduction in heavy industry • **9-30 jobs/$1m** invested in buildings energy efficiency • Potential **20%** reduction in building emissions via energy efficiency. Potential **15%** reduction in heavy industry	Private and public	0.6–0.8	0.2–0.3 (30%)
Transport • Charging infrastructure (**cars, trucks**) • Green **shipping** fuel • Sustainable **Aviation** Fuels (SAFs), electric planes	• **EV sticker price parity by 2024** vs. petrol/ diesel; EVs offer **3-4x cheaper fuel**; 50% less to maintain • **6m new direct jobs** in EV charging by 2030 • Short-haul electric/H_2 flights could be **cost competitive with jet fuelled planes by mid 2030s** • **66** zero-emission shipping pilots and projects launched • Potential **10-15%** reduction in light road and heavy road transport emissions and **10%** each shipping / aviation	Private and public	0.1	0.03 (35%)
Innovation • **Hydrogen** production facilities, pipes, storage • **Carbon capture, utilisation and storage** (CCUS): transport and storage	• **50,000 jobs** in CCUS in UK by 2030; growing H_2 industry • **H_2 costs to decline** from $3-6/kg to <$2/kg by 2030 • **$6-12bn p.a.** green hydrogen export market by 2030 • Around **0.3 GT CO_2e p.a.** reduction via CCUS by 2030	Private and public	0.06-0.07	0.03 (45%)

Investment area	Investment rationale CO_2e savings by 2030 (vs BAU with no investment)	Public/ private	Investment estimate ($ trn p.a.)	
			Global	G7
Adaptation and resilience				
Adaptation and resilience • Making physical and natural infrastructure resilient • Strengthening early warning systems • Enhancing disaster risk preparedness and response	• **$7.1trn returns on $1.8trn invest:** 2-10x benefits vs. costs • Reduce losses: **$12trn p.a. flood damage** in 2°C pathway • **$236b business opportunities** • Reduce **health costs**; **50m displaced** by desertification	Private and public	>0.1–0.3	Insufficient data
Nature, agriculture and food				
Nature protection and restoration, including forests, peatlands, mangroves, seagrasses, saltmarshes. Investment in land, natural CAPEX, infrastructure, salaries, training	• **45m jobs** in sustainable land management and ocean economy by 2030 • **$8trn Gross Value Added** with construction, agriculture, food and drink all highly dependent on nature • **Twice as expensive to delay** action to stabilise biodiversity intactness globally as to act immediately • Reduce **$1.7trn p.a. losses** via deforestation/degradation • Reduce **zoonotic disease risk:** land use change caused emergence of **>30% new diseases** reported since 1960 • Potential 90% emissions reduction and avoid ecosystem collapse	Mostly public	0.1-025	<0.01** (3%)
Productive, sustainable, efficient agriculture • Enhancing productivity and shifting to regenerative practices • Reducing food loss and waste • Transitioning to healthy diets (alternative protein production and R&D)	• **Growing corporate demand** for regenerative agriculture, e.g. Cargill, Danone, General Mills, Walmart • **$100b p.a. business opportunity** in boosting yields in Sub Saharan Africa by 2030 • **$225b p.a.** opportunity in reducing food loss and waste by 2030 reducing **$1.2trn food lost p.a.** • Enhance **food security and improve nutrition** • **Alternative protein** industry to grow to **$85bn** by 2030 • Soil degradation costs EU **€100bn p.a.** • **Reduce input costs** via precision tech and smart practices • Help to reduce **$3trn p.a. air pollution** healthcare costs • Potential **40%** emissions reduction	Private and public	0.15	0.03 (20%)
TOTAL			**2.6 – 3.2**	**0.7–1 (25%)**

* Investment estimates do not map directly into national account concepts.

** The G7 countries estimate for nature protection and restoration covers only investment within G7 countries. Considering the global public good feature of natural capital in emerging markets and developing countries and taking account of the financial challenges confronted by these countries, the G7 should provide strong support to these countries in this area.