The transition just stepped up a gear

The Green Economy Barometer 2017
The Green Economy Coalition is the largest global movement for green and fair economies. Active since 2009, the coalition brings together diverse constituencies – environmental NGOs, development NGOs, businesses, trade unions, UN agencies and think tanks.

We are a broad coalition, but we are all committed to the same vision: prosperity for all within one planet limits.

We know the transition to fair, green economies is urgent, possible and desirable. www.greeneconomycoalition.org.
The 2017 Green Economy Barometer brings you the view from the frontline of the transition to fair, green economies.

**The highs**

**Green solutions hit the mass market:**
The end of the combustion engine is now in sight; off-grid renewable energy systems are scaling up; clean cook stoves are becoming affordable.

**Dawn of new global leadership:**
In an increasingly fragmented global political landscape, the story of green economy is starting to become a powerful and unifying political narrative.

**The global energy transition has taken off:**
For the second year in a row, renewable energy accounted for more than half the new power generation capacity added worldwide. Heads of the world’s largest oil companies have spoken of a “global transformation” (Saudi Aramco) that is “unstoppable” (Royal Dutch Shell) and “reshaping the energy industry” (Statoil).

**The lows**

**Financial systems are unchanged:**
10 years since the global financial crash and capital markets are still dominated by institutions ‘too big to fail’; governments continue to subsidise the fossil fuel industry; and the majority of our natural assets are valued at zero.

**Small businesses and informal workers are being forgotten:**
The majority of national green economy plans make little mention of informal workers or small business. Green investment is not yet reaching the ground.

**Biodiversity is in crisis:**
While there have been some important conservation wins, global biodiversity is in rapid decline. Our economies remain blind to environmental risk.

**Jobs for the next generation:**
From Uganda to the UK, our partners are reporting a growing youth unemployment crisis.

**The new green revolution:**
Big green ‘bankable’ projects are currently focused on urban centres, large renewable schemes and the transport sector, but rural economies are being left behind.

**The gap is getting bigger:**
The gap between rich and poor is getting bigger, not smaller.
Introduction

The light on the global green economy horizon has brightened this year: markets are booming; new narratives are emerging; investment is flowing. But that same story looks different from the ground: young people need jobs; biodiversity is in crisis; and rural economies are being left behind.

The global view
Our global geopolitical bedrock has shifted in the last eighteen months. Our world is feeling more fragmented, more unstable. Across the globe, headlines speak of nationalism and secessionism, of humanitarian crises and natural disasters, of voters feeling let down by their political systems.

But from these fissures, something new is emerging. A different story is taking shape— one of renewal, hope and collaboration. French President Emmanuel Macron has pledged to “Make Our Planet Great Again” and announced a raft of ambitious environmental policies – including the creation of the Ministry for an Inclusive and Ecological Transition. Jacinda Ardern, the world’s youngest female leader, has won office in New Zealand with an ambitious environmental agenda. China, now a green technology superpower, sees the green economy as an essential part of their national development strategy and emergent global leadership.

Clean and green markets are booming. Sales of electric vehicles in 2016 jumped 42% from the previous year, growing eight times faster than the overall market. The lithium-ion batteries that power them are getting cheaper too – prices are down 75% since 2011 – opening the way to a massive increase in energy storage capacity. From cook stoves to electric vehicles, from solar lighting to smart homes, green solutions are flooding into everyday life.

But, let us be clear: The brown economy is not dying quietly. Oil, gas and coal still account for about 86% of the energy keeping the world’s lights on, cars running and homes warm — a share that has barely changed in 25 years. Coal and gas-fired power plants are still being built, especially in developing countries. GDP growth continues to dominate government decision-making, despite the glut of new sustainability indicators and performance metrics. Most of our natural and societal assets have a value of zero in the economy.

Ten years on from the financial crisis, our capital markets remain unchanged.

Views from the ground
Our networks and national hubs are restless for change. They are cheered by the plethora of national action plans: Peru has signed off on their National Guidelines for Green Growth; Uganda has a draft Green Growth Development Strategy and Climate Change Law; the UK has published its Clean Growth Strategy; India has set ambitious mitigation targets as a part of the COP21 Paris Agreement. But our members also report that laws and frameworks for protecting nature are being dismantled in the name of economic progress. From renewable incentives in South Africa to Environmental Impact Assessment procedures in India, nature is under threat.

Our partners speak of their growing frustration as big green ‘bankable’ projects are focussing on urban centres, large renewable projects and the transport sector. Little, if any, investment is being directed towards rural economies, and smallholder farmers are being left behind.

We are also hearing that the world of work is changing. Jobless growth is no longer a distant threat. Despite GDP growth in many countries, there is a growing employment crisis – particularly for the next generation. The advent of automation threatens to leave millions of poor, low-skilled workers around the world out of work.

The disconnect between the global picture and the view from the ground should sound alarm bells. The green transition is underway and gathering speed. But if it fails to be relevant to people’s lives – their homes, health, jobs, security – the cracks in the geopolitical landscape will only become deeper and wider.
Is nature being valued and protected?

Some conservation wins: Last year countries broke a four-year-long impasse to create the world’s largest marine reserve in the Ross Sea off the coast of Antarctica. The UN International Civil Aviation Organization curbed emissions from international flights. And 197 countries agreed to amend the Montreal Protocol to phase out hydrofluorocarbons, powerful greenhouse gases commonly used in air conditioners. From 2010 to 2015, the annual net loss of forest area globally was less than half that of the 1990s. And worldwide coverage of terrestrial, freshwater and mountain biodiversity protected areas has increased from 35 per cent to 49% since 2000. In more eye-catching headlines, giant pandas populations are on the rise again.

Nature is making the news: Climate impacts are making front pages around the world: hurricanes in the Caribbean, wildfires in the US, flooding across South and South-East Asia, and drought in East Africa. The ongoing water crisis in South Africa has become a hotly debated problem in the national press coverage, while air pollution is hitting headlines regularly in China, UK, India, Brazil and the Philippines.

Business is starting to see nature’s value: Natural capital approaches and methodologies are increasingly being taken up by the private sector. Companies as diverse as Jaguar Land Rover, Skanska, Roche, AkzoNobel, Novartis, Yorkshire Water and Dow have signed up to stringent protocols on the sustainable use of natural capital, issued by the Natural Capital Coalition. And the 2017 World Forum on Natural Capital was the biggest yet, and saw the publication of a raft of guides to help businesses incorporate natural capital into their planning.

“From 2010 to 2015, the annual net loss of forest area globally was less than half that of the 1990s"
Governments are taking stock of their natural assets:
At the global level, the World Bank’s Wealth Accounting and the Valuation of Ecosystem Services (WAVES) continues to support countries to value nature at scale. Recent highlights are the Philippine Statistics Authority’s development of draft mangrove ecosystem accounts at the national and pilot levels; Zambia and the Kyrgyz Republic joining the WAVES programme; Costa Rica updating its accounts for water, forests and energy, and developing whole ecosystem accounts; and the Central Bank of Costa Rica establishing an Environmental Statistics Unit within its Macroeconomic Statistics Department.

But plans and accounts aren’t yet enough: Despite recent wins, our members are alarmed by the big gap between rhetoric and reality. Germany is almost certainly going to miss its 2020 carbon targets by a wide margin. Despite India’s recent commitment on climate change, the government is dismantling legal protections, particularly the Environmental Impact Assessment process. Europe continues to invest in major gas projects, despite evidence it has drastically underestimated carbon emissions from the fuel. And a recent survey from KPMG found nearly three quarters of firms are still failing to acknowledge climate risks.

And biodiversity is in crisis.
Some sixty per cent of the world’s ecosystems have been degraded over the past fifty years. While climate change has made it into mainstream discourse, biodiversity is not widely understood. Conservationists are predicting a “biological annihilation”, a global mass extinction that is already well underway. Populations of mammals, birds, reptiles, amphibians and fish have more than halved since 1970. And three-quarters of flying insects in nature reserves across Germany have vanished in 25 years. Earth Overshoot Day, the date when humanity’s annual demand on nature exceeds what Earth can regenerate fell on August 2, the earliest date yet.

As the Global Environmental Facility reached its 25th birthday last year, Naoko Ishii, CEO and Chairperson, reflected that although there have been plenty of successes ‘the uncomfortable truth is that we, like the rest of the international community, are failing to reverse the sharp downward trend in the global environment. We have won battles, but the war is still being lost’.

“WE HAVE WON BATTLES, BUT THE WAR IS STILL BEING LOST
Are people thriving? Are our economies getting fairer?

The gap is getting bigger: The first year of SDG implementation was marked by the slowest rate of economic growth since the 2008-2009 global financial crisis, weak investment growth and stagnant global trade. Oxfam’s 2017 report reveals that inequality is worse than had been understood. Seven out of 10 people live in a country that has seen a rise in inequality in the last 30 years. The gap has implications for nature as well. 20% of the world’s population accounts for 76.6% of total private consumption, compared to the poorest 20% which makes up only 1.5%.

SEVEN OUT OF 10 PEOPLE LIVE IN A COUNTRY THAT HAS SEEN A RISE IN INEQUALITY IN THE LAST 30 YEARS.

The Multidimensional Poverty Index, which measures deprivation in health, education and living standards, counted 1.6 billion people living in multidimensional poverty in 2016 – nearly twice the number of people living in extreme poverty measured by income alone.

In happier news, from 2015 to 2016, official development assistance (ODA) rose by 8.9% in real terms to 142.6 billion USD, reaching a new peak. But bilateral aid to the least developing countries fell by 3.9% in real terms.

Jobless growth is a reality: While there has been progress in reducing the global unemployment rate, nearly 201 million people worldwide were estimated to be unemployed in 2016, including 71 million young people. Automation is hitting the poor, low skilled and informal economy the hardest says IIED.

Our partners in Uganda, South Africa and India confirm the trend of jobless growth. In India, technology and automation are already driving low-skilled manual workers into unemployment, while over 60% of young people in Uganda do not have a job. There are concerns that green investment cannot create new jobs quickly enough.

In this context, green growth could prove even more important, says the Director of IIED Andrew Norton. But this requires “valuing the development potential of the informal economy, rather than seeking to substitute it. Helping small farmers achieve higher yields, better prices and reduced risk. And focusing on access to finance, energy and infrastructure for the small informal enterprises that form the bulk of the economy in many developing countries.”
Green investment isn’t reaching the poorest:
Economic losses from natural hazards are now reaching an average of 250 billion to 300 billion USD a year, with a disproportionate impact on small and vulnerable countries. Yet, a new report by Oxfam has found that international climate finance is not reaching poor countries: “The Least Developed Countries (LDCs) are being left with far too little support and adaptation continues to be seriously neglected, when in reality both should be first-order priorities”. Work carried out by CAFOD shows that the vast majority of green growth and green economy national plans make little or no reference to poor or marginalised groups.

Civil society lobbies for a carbon damage tax:
A growing number of civil society organisations are calling for a ‘carbon damage tax’. Modelled on the push for a transaction tax, also known as the Robin Hood tax, the idea is to tax the fossil fuel majors to pay for the climate damage their coal, oil and gas is causing. This money can be split between national efforts to green the economy, such as supporting innovation in home industries, and funding overseas climate finance for communities in the global south, who are already facing serious climate impacts.

Universal basic income rises up the agenda: Rising inequality is energising the campaign for a universal basic income. Mark Zuckerberg, founder of Facebook, has come out in favour of the policy, the “new social contract for our generation”. Enthusiasts include Silicon Valley’s Elon Musk, former Clinton labour secretary Robert Reich, the French Presidential candidate Benoît Hamon, and South Korean presidential candidate Lee Jae-myung. Switzerland hosted a referendum on the policy, which was rejected, while trials are now underway in Finland, Scotland and Namibia. It even made it onto the agenda at the World Economic Forum in Davos in 2015 and 2016.
Are we growing greener industries and sectors?

**Renewable energy exceeds all projections:** Sixteen years ago, projections indicated that by 2010 the world would be able to install 30 gigawatts of wind capacity. In 2015, we installed 14.5 times that amount. The Solar energy story is even more dramatic. Fourteen years ago, projections said that the solar energy market would grow 1 gigawatt per year by 2010 – that goal was exceeded 17 times over.

**Investment in renewables** excluding large hydro fell by 23% to 241.6 billion USD, but the amount of new capacity installed increased from 127.5GW in 2015 to a record 138.5GW in 2016. Together, the new renewable sources of wind, solar, biomass and waste, geothermal, small hydro and marine accounted for 55.3% of all the gigawatts of new power generation added worldwide last year.

These advances have become too significant for the oil and gas industry to ignore. As reported by the Financial Times, in the first three months of this year the heads of some of the world’s largest oil companies have spoken of a “global transformation” (Saudi Aramco) that is “unstopable” (Royal Dutch Shell) and “reshaping the energy industry” (Statoil). Isabelle Kocher, chief executive of French power and gas group Engie, calls it a new “industrial revolution” that will “bring about a profound change in the way we behave”. And all the major oil firms are now planning for peak oil demand – some as soon as 2025.

**The war on coal is over—coal lost:** By all measures, the global coal industry is collapsing – and the speed of its demise illustrates the possibility of rapid change. Pollution-choked China has cancelled plans for 151 coal plants. Half of all US coal is owned by companies that have declared bankruptcy. In the UK, where coal-burning began the industrial revolution, it has fallen from 40% of power supply to 2% in the past five years. The UK & Canada recently announced a global alliance to phase out coal power entirely, while the new Dutch coalition government has agreed to shut down all coal-fired plants by 2030 – including 3 which were only built in 2015.

**But brown energy is not dying quietly:** However, fossil fuels still account for about 86 per cent of the world’s energy use — a share that has barely changed in 25 years. Coal and gas-fired power plants are still being built, especially in the developing world where 1.2bn people lack electricity. In 2016 the carbon intensity of the world’s economy fell 2.6%, a continuation of the “step change” in the pace of decarbonisation seen since 2014. But this is much slower than the 6.3% per year needed to deliver emissions cuts compatible with keeping temperature increases to under 2°C.
Circular economy takes hold: The circular economy continues to capture the imagination of brands, cities and innovators. Stories of big companies such as Levi Strauss using recycled jeans for the insulation of buildings, or of Timberland producing soles from tyres, are helping to build a generation of corporate champions. According to the Ellen Macarthur Foundation, the circular economy offers big investment opportunities. But recent research shows that circular economy activities can actually increase overall production, “partially or fully offsetting their benefits”.

Indeed, global consumption shows no signs of going down. By 2050, the global demand for food is expected to increase by 60%, and, by 2035, global energy consumption is expected to increase by up to 50%.

Organic farming is due a boost: Organic farmland has more than doubled in the last decade and each year 500,000 hectares of land are converted into organic production. In June 2017, the EU agreed to overhaul existing rules on organic production, in order to guarantee fair competition for farmers and operators, prevent fraud, and improve consumer confidence in organic products.
Are our capital markets capable of supporting the transition?

**Green investment is booming:** Excluding government investments, over 8.13 trillion USD has been invested in the green economy since 2007. According to Ethical Markets Media, private green investment is on track to hit 10 trillion USD by 2020.

**Capital markets are waking up:** Major financial institutions are finally taking affirmative steps to respond to the risk of climate change and develop greener financial systems.

- The industry-led Task Force on Climate-related Financial Disclosures (TCFD), chaired by Michael Bloomberg, has published recommendations for disclosure.
- The European Union has established a High-Level Expert Group on Sustainable Finance, aiming to transform the EU’s rules and financial policies to facilitate green and sustainable investment.

**OVER $8.13 TRILLION IN PRIVATE INVESTMENTS AND COMMITMENTS HAS BEEN INVESTED IN THE GREEN ECONOMY SINCE 2007**

The green bond market in particular has taken off. According to the Climate Bonds Initiative, climate-aligned bonds now stand at 895 billion USD, a jump of 201 billion from the previous year. Globally, development banks are the largest green issuers, with the European Investment Bank, KfW and World Bank making up the top three.

Issuance from corporations and commercial banks has grown, but demand from institutional investors outstrips supply. Chinese companies have started investing heavily in green bonds, accounting for around 39% of the market. Last December, Poland became the first country to issue green sovereign bonds, followed by France a few weeks later. Several emerging economies, including Nigeria, Morocco and Kenya, have similar plans in the pipeline.
Globally, the total value of emission trading schemes and carbon taxes in 2017 is US$52 billion, an increase of seven percent compared to 2016.

- The Bank of England has begun to probe insurance companies and banks’ exposure to climate change risks.
- Dutch, Swedish and German financial authorities have been examining the potential financial threat of global warming, and France has introduced requirements for institutional investors to explain how their portfolios line up with climate change targets.
- China has adopted “Guidelines for establishing a green finance system”, which include re-lending operations by the People’s Bank of China, specialized green guarantee programmes, interest subsidies for green loan-supported projects, and the launch of a national-level green development fund.

Carbon is starting to be priced: The move to price carbon is slowly scaling up. Since 2016, eight new carbon pricing initiatives have been put in place – three at a national level and five at a subnational level. As of 2017, over 40 national and 25 subnational jurisdictions representing almost a quarter of global greenhouse gas emissions are putting a price on carbon, and the number of jurisdictions with carbon pricing initiatives has doubled over the past decade. Globally, the total value of Emission Trading Schemes and carbon taxes in 2017 is 52 billion USD, an increase of 7% compared to 2016.

But governments are still bankrolling fossil fuels: A new study from the IMF has calculated that, when externalities like environmental damage and health impacts are taken into account, fossil fuel firms are being subsidised globally by 5.3 trillion USD every year. To put those numbers in perspective, that’s more than double the size of the entire UK economy, or the equivalent of 10 million USD every minute, every day.

And more systemic reform remains at large: 2017 marked 10 years since the beginning of the financial crisis. Campaigners, researchers, policy and industry experts came together in September to ask if the capital markets had reformed, and the answer was a resolute ‘no’. As reported by the Financial Times (paywall), “Yes, banks are better capitalised than they were, and the pure investment banks that depended on short-term financing are gone or absorbed into deposit-funded institutions. But despite years of hand-wringing about too big to fail, the big banks are more dominant than ever. If malfeasance played a role in the crisis, virtually no one has been successfully prosecuted for it”. GEC members are calling for much more systemic reform to the mandates of central banks, monetary policy and lending criteria.

Fossil fuel subsidies have risen to over $5.3 trillion.

A further study released this year by the Stockholm Environment Institute (SEI) found that almost half of the new oil fields in the US rely on government subsidies to be profitable. Without those subsidies, about 20 billion barrels of oil would stay in the ground – equivalent to about 1% of the world’s remaining carbon budget under the Paris Agreement’s 2°C target.

World leaders pay lip service to the need to end such subsidies, but waver on firm commitments. In 2016, the G7 pledged to end all “inefficient” fossil fuel subsidies by 2025, but that promise disappeared from the text of the 2017 communique. The G20 have affirmed their commitment to phasing out “inefficient fossil fuel subsidies that encourage wasteful consumption”, but have not set a deadline.

But despite years of hand-wringing about too big to fail, the big banks are more dominant than ever.
Are our institutions capable of leading the transition?

New leaders and laggards:
Over the last eighteen months the global landscape of a green economy has fragmented. At one extreme, President Trump is busy dismantling environmental legislation in the USA. The U.S. Environmental Protection Agency is poised to withdraw the Clean Power Plan, and the Department of Interior is set to auction oil and gas leases for 77 million acres of federal waters within the Gulf of Mexico—the largest sale of its kind ever announced. Trump has signed an executive order revoking federal flood-risk standards that incorporated rising sea levels predicted by climate science.

At the other end of the spectrum, the vision of a green economy is becoming a unifying narrative amongst a new generation of leaders.

- Pledging to “Make Our Planet Great Again”, President Emmanuel Macron has established environmental action as a core pillar of France’s foreign policy – laying down a marker with the first ever Minister for the Ecological and Inclusive Transition.

- China, now a green technology superpower, sees the green economy as an essential part of their national development strategy and emergent global leadership.

- The European Union is doubling down on policy support for its burgeoning green economy, with decarbonisation as one of the 5 core planks of its long-term industrial strategy.

- And President Trump’s attack on the green agenda has unleashed a wave of collaborative action between cities and states in the US.

Meeting Global Goals: Thanks to the SDG framework, for the first time the world now has annual reports that provide accessible updates across the 17 action areas. The SDG Index and Dashboard provides a useful tool to assess the performance of different countries, and – crucially – now measures “spill-over effects”, where one country’s policies and actions affect the ability of others to achieve the SDGs.

There are positive signs that the SDG framework is being taken up by businesses. According to PricewaterhouseCoopers, there is much higher awareness of the SDGs amongst the business community than the general public; and over 40% of business are planning to integrate the SDGs into their strategies in the next 5 years. However, the vast majority of businesses are cherry picking specific goals rather than assessing their strategies against the whole framework.
Green economy agenda matures: The green growth agenda has matured in the last eighteen months. The UN Partnership for Action on Green Economy’s (PAGE) understanding of a ‘green economy’ has evolved beyond simple resource efficiency to encompass a holistic reckoning of nature’s capital. It is working directly with 11 governments to advance green economy planning, and a further 14 countries are part of the PAGE exchange network to share practical experiences of the transition.

In some cases, such as Peru where the national plan has been completed, countries are now ‘graduating’ and UNPAGE is reducing their support. The UNPAGE Ministerial Conference in March 2017 attracted high-level participation from Environmental and Planning Ministries the world over, though attendance from Treasuries and Ministries of Finance remained disappointingly low.

The Global Green Growth Institute (GGGI) continues to mature. With 27 member states, operations in 25 developing and emerging economies, and a 1 billion USD project portfolio, the GGGI has sharpened its focus on the social dimensions of green growth both operationally and through its policy research. It is also scaling up work on agriculture and landscapes. However, the majority of ‘bankable’ green investment continues to flow to cities and large infrastructure projects.

The OECD Green Growth Programme continues to mainstream green economy approaches into all of the OECD’s work. The Green Growth Knowledge Platform has played a critical role in documenting policy and research on green growth, and has established a series of ‘Working Groups’ to lead research themes across the agenda, collecting a library of good practices of the transition in action.

Finally, the EU is doubling down its support for the green economy transition – particularly through the SWITCH to Green Initiative that provides technical support to EU Delegations and Directorates in effecting an inclusive green economy.

Taken together, it is clear the green economy is growing up. The agenda has widened and deepened, large international institutions are collaborating and investment starting to flow. But, as our local partners are telling us, the larger challenge remains that these large global initiatives and financial initiatives struggle to reach the ground.

---

i Giant panda populations have undergone a 17% increase since 2003, and their occupied habitat has increased by 11.8% thanks to reforestation and protective measures.

ii A major reason why installations increased even though dollars invested fell was a sharp reduction in capital costs for solar photovoltaics, onshore and offshore wind. On a less positive note, there were clear signs as 2016 went on of slowing activity in two key markets, China and Japan.

iii An initiative launched by the Sustainable Development Solutions Network and Bertelsmann Stiftung
The next frontier

The brown economy is flagging. In its current form, the economy is not capable of protecting the world’s most vulnerable people or our most important natural assets. It is not stable enough to withstand financial or environmental risks, and it is not compelling enough to unify nations and citizens.

The vision of fair, green economies offers a different path. It asks us to look forward, not backwards. It offers a positive agenda for cooperation across borders. It offers hope to communities and sectors that have been left behind by globalisation. It speaks to a younger generation who are seeing the impacts of climate change and have technology at their fingertips but who feel worried about their future. But today’s citizens, voters and consumers are impatient for results beyond the rhetoric. This makes it ever more important that the transition is rooted in local economies, brings real investment to the ground and is owned and shaped by the people.

Green Economy Coalition’s response to the state of the green economy agenda:

- We have launched a 7 year programme - Economics for Nature – to ensure economic policymaking recognises natural capital.
- We are driving new research into the substitutability of natural capital.
- We will be launching a global campaign on financial system reform to ‘Change Finance’.
- We’re looking to expand our base of 7 GEC national hubs across the world, pioneering community action.
- We are stepping up our focus on small and informal green economies.
- We are championing the voices of civil society and communities in the development of green economy national plans.
The transition just stepped up a gear