



## The Progress of Green New Deals in Europe and the US

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# Sustainability Report

The Al-Attiyah Foundation



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## INTRODUCTION

### THE PROGRESS OF GREEN NEW DEALS IN EUROPE AND THE US

Governments in Europe and the USA want the recovery from the Covid-19 pandemic to be the springboard for environmentally and socially progressive policies. The EU has proposed the 'European Green Deal' and 'Fit for 55', while the administration of President Biden has put forward a 'Green New Deal' and the strategy of 'Build Back Better'.

What are key factors and differences between the two continents' green deals, and how do these compare to eco-environmental policies in other countries? What are the challenges and chances of success on the environmental and economic aspects?



### Sustainability Report

This research paper is part of a 12-month series published by The Al-Attiyah Foundation every year. Each in-depth research paper focuses on a prevalent sustainable development topic that is of interest to The Foundation's members and partners. The 12 technical papers are distributed to members, partners, and universities, as well as made available online to all Foundation members.



## EXECUTIVE SUMMARY

- 'Green New Deal' and the 'European Green Deal' have become brand names for a broad platform of linked environmental, economic and social policies.
- These have a long historical pedigree, going back to the New Deal of the 1930s.
- The recent trend back in favour of 'industrial policy' and activist government has its roots in several concerns: rising economic inequality and a declining working class; much greater government spending to deal with the 2008-9 financial crisis and then the 2020-21 Covid-19 pandemic; competition from China and its state-driven model; and recognition of the urgent need for climate action.
- The GNDs aim to deliver decarbonisation, economic equality and employment, and social progress for marginalised groups and those negatively affected by the energy transition.
- The EU has the most comprehensive and coherent strategy, while the US reflects more political compromises and bargaining. Other countries have plans for decarbonisation and 'just transition', but not in such an overarching framework.
- The European Green Deal has a more balanced mix of targets, regulations, incentives and a carbon price, while the US policy is contained mostly in two large bills, one passed to date, relying more on tax credits and direct spending.
- Both are likely to include a Carbon Border Adjustment Mechanism (CBAM) to avoid 'carbon leakage' to countries with less stringent climate policies. This could drive positive change, but also risks disputes between the two blocs and with other trading partners.
- The GNDs have international counterparts – Global Gateway (EU) and Build Back Better World (US-G7), which are intended as more socially and environmentally responsible responses to China's Belt and Road Initiative.
- The GNDs are likely to be durable because they create large coalitions of parties who benefit.
- They will create long-lasting infrastructure and institutions and, possibly, catalyse new technologies.
- They also face risks and negative consequences, including stoking inflation, creating special interests and legitimising protectionism.
- The US, EU and like-minded partners should seek to work together as far as possible, specifically by aligning their CBAMs and their international development programmes. They should also be open to specific collaboration with China in areas of mutual interest.



## THE NEED FOR GREEN NEW DEALS

The latest proposals for a 'Green New Deal' (GND) or a 'European Green Deal' should be seen in the context of a long history of activist government, dating back even to the Progressive Era in the US (1896-1916) which featured restrictions on corporate power and moves towards more economic equality. The ups and downs of such policies over the 20<sup>th</sup> and 21<sup>st</sup> centuries include changing opinions on:

- The proper role and size of government in the economy
- The acceptability and efficacy of deficit spending
- The ability of government to shape desirable economic, environmental and social outcomes while limiting negative consequences.

The original New Deal was a package of measures introduced by the administrations of US President Franklin D. Roosevelt (FDR) to combat the Great Depression of the 1930s. It included public works such as the Tennessee Valley Authority, financial reforms including the Securities and Exchange Commission (SEC), and other reforms. It marked an activist and progressive era of government that continued into the early 1970s. As such, it was a political programme as much or even more than an economic one.

The economic success of the New Deal continues to be debated, since the US did not fully emerge from the Great Depression until the mobilisation for the Second World War (WW2). Nevertheless, its legacy in areas such as rural electrification, flood control and irrigation, continues to be highly influential and has shaped thinking about subsequent development economics in lower-income countries.



The New Deal did not follow the precepts of British economist John Maynard Keynes, for deficit spending to lift economies out of economic slumps. But Keynes was highly influential in post-WW2 economic thinking on both sides of the Atlantic, as governments took on a much larger role and sought to keep unemployment low. As energy prices remained moderate, and productivity and the labour force were growing, this could be achieved without accelerating inflation, until the early 1970s.

The New Deal was followed by a number of imitative programmes after the war: Harry S. Truman's 'Fair Deal', John F. Kennedy's 'New Frontier', which including the goal of the Moon landings, and Lyndon B. Johnson's 'Great Society'. The Great Society was LBJ's own attempt to outdo FDR, including civil rights, the environment, health, culture and education. And parts of this approach even continued into the Republican administration of Richard Nixon, notably the Environment Protection Agency (EPA) and the Clean Air Act.

However, this era was followed by the oil shocks of the 1970s; the stagflation (recession plus inflation) of that decade; a loss of faith in the capability of government stemming from the Vietnam War, economic malaise, and labour unrest in the UK; 'public choice theory' which dismissed government as a neutral arbiter of the public good; and the rise of Monetarist economics which argued against Keynesian deficit spending and in favour of shrinking government spending and raising interest rates to reduce inflation. The governments of Ronald Reagan in the US (1980-88) and Margaret Thatcher in the UK (1979-1990), aimed to cut government spending, taxes and regulations, and to privatise state-owned businesses. The later centre-left governments of Bill Clinton





and Tony Blair continued many of these policies and only softened some slightly. Even Sweden, a paradigmatic of high-tax, high-welfare social democracy, carried out major reforms following its 1991-94 economic crisis<sup>1</sup>. The collapse of Soviet-backed Communism across Eastern Europe and the USSR during 1989-91 discredited the 'command economy' and state-led industrialisation.

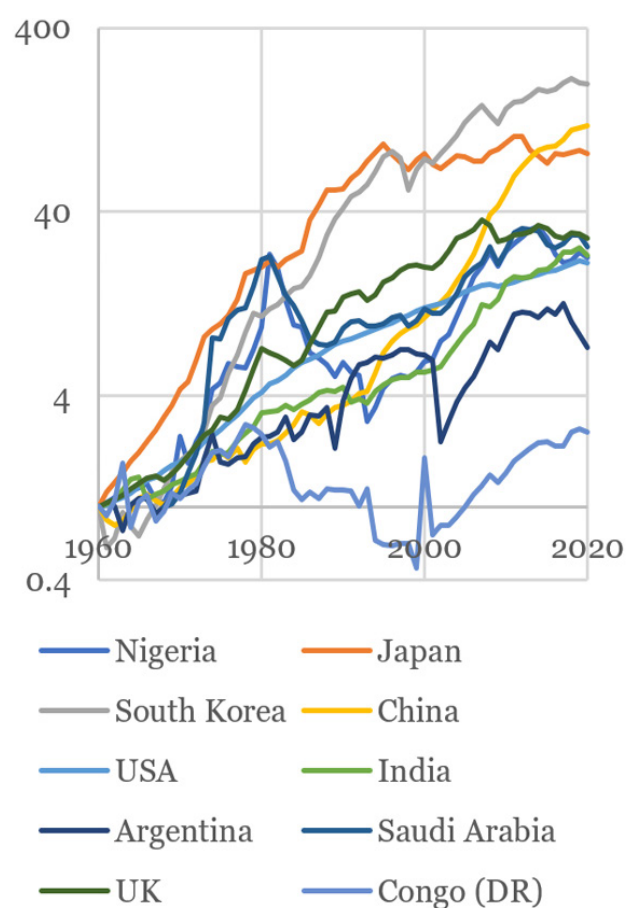
The experience of the developing world across this era was quite distinct. In South Asia, Latin America and Africa, state-led industrialisation, protectionism, import substitution, populist policies of redistribution, and foreign aid-backed infrastructure, yielded growth up to the 1960s but a severe slump in the 1980s, accompanied by serious debt crises.

In contrast, in several East Asian countries, state-guided but largely private-sector growth was highly successful, led by export-oriented manufacturing. Japan was the first, followed by Singapore, South Korea, Taiwan and then by other 'Asian tigers' such as Thailand, Malaysia and Indonesia. Although affected by the 1970s oil shocks, and then severely by the 1997 Asian financial crisis, strong growth has continued across the region, with the exception of Japan.

Major economic reforms came in China from 1980 onwards under Deng Xiaoping, bearing fruit particularly in the 1990s and then with explosive growth from 2003 onwards. The main motor of growth has been the private sector, but heavily influenced and guided by both central and regional (provincial and municipal) government in terms of personnel, policies, subsidies, capital and infrastructure provision. China's success provided a template for heavily state-backed industrialisation, which has been imitated on a much smaller scale by countries such as Ethiopia. The reforms of India under

Manmohan Singh as finance minister (1991-1996) and subsequent governments have been much less far-reaching, and more reliant on the private sector, but have also triggered a period of rapid albeit volatile growth. In India, the key has been the reduction rather than the increase of government influence and regulation.

Figure 1 GDP per capita, selected countries 1960-2020 (1960=1) <sup>2</sup>



#### Data Sources

1- <https://academic.oup.com/wbro/article/34/2/274/5522304>

2- Data from World Bank, <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD>

The 2008-9 financial crisis and the 'Great Recession' had a profound impact across most of the world. China, through a massive stimulus programme, escaped relatively intact. The oil exporters were boosted by swiftly rising prices. But otherwise, the downturn was severe and the recovery in employment and earnings was slow, with rising inequality of incomes and wealth across Western countries in particular. Fiscal stimuli were undertaken but were undersized and terminated too early, and most of the response was monetary and borne by central banks in the form of 'quantitative easing' programmes which suppressed interest rates and pumped-up asset values. Despite low and sometimes negative interest rates, governments did not choose to spend heavily on public works or infrastructure. This combined with the lack of action against those blamed for the crisis, the long-term loss of mining and manufacturing jobs, greater employment insecurity, and hostility to perceived unfair competition from China and trade liberalisation. The rise of populist and often authoritarian politicians was prominent in Italy, and subsequently in the UK with Brexit (2016) and the election of Donald Trump in the USA (also 2016). China, which launched a giant stimulus programme and came through the crisis relatively unaffected, saw a big gain for the perceived attractiveness of its development model.

Meanwhile, since the Rio Earth Summit of 1992 and the Kyoto Protocol (1997), attention to the dangers of climate change had steadily risen, but it was clear that global action to limit emissions was proving highly ineffective. The sharp acceleration in Chinese greenhouse gas (GHG) emissions from 2003 exacerbated concerns. As China, India and other large emerging economies were not part of Kyoto's

'Annex I' of developed countries with binding GHG cuts, this was seen as a further example of unfair competition. From the side of the developing countries, they argued that their per capita emissions were still low compared to developed economies, and that they bore little responsibility for the historic burden of emissions. However, this argument has become increasingly untenable at least in China's case.

The Paris Agreement (2015) marked a shift in climate diplomacy, with countries required to submit Nationally Determined Contributions (NDCs) laying out their plans for emissions mitigation and climate adaptation, to be revised on a 5-year schedule. The agreement set a goal of limiting warming by 2100 to no more than 2°C, with an aspiration of no more than 1.5°C.





## THE PANDEMIC AND RECOVERY

The Covid-19 pandemic, striking worldwide from early 2020, was met with stringent lockdowns and travel restrictions across most countries, particularly higher-income states and China. Subsidies for affected businesses and workers caused sharp rises in government debt; nevertheless, economic activity plunged while unemployment rose.

The arrival of effective vaccines from early 2021 has been accompanied by a large-scale re-opening of economies, despite subsequent waves of infection. This episode has had several important effects:

- A sharp drop in energy use, prices and GHG emissions, followed by an almost equally strong rebound.
- Government direction of personal activity, the economy and direct support of employees, to a level unprecedented outside wartime.
- Impressive technological success in the very rapid development of vaccines.
- A recognition that massive economic reconstruction is necessary and should have the goals of reducing social inequalities and environmental injustice, tackling climate change and delivering a 'just transition' to a new energy system.



## THE US 'GREEN NEW DEAL'

In the USA, a 'green New Deal' had been sporadically mentioned by commentators and politicians from the early 2000s. The concept marked a turn away from market-based policies on the environment, such as the carbon tax or cap-and-trade proposed unsuccessfully by the Clinton and Obama administrations. It had more comfort with 'big government' and sought to drive environmental advances by a combination of mandates and incentives. And it prioritised reducing inequality and improving the position of historically marginalised groups such as African Americans. The loss of white working-class votes in 'Rust Belt' states such as Michigan and Pennsylvania, contributing to the narrow defeat of Hillary Clinton in the 2016 presidential election, drew attention to the long-term problem of deindustrialisation and the need to ensure that a transition to low-carbon energy took care of such states.

The Green New Deal label gained more prominence when in 2019, two prominent Democratic members of Congress, Representative Alexandria Ocasio-Cortez and Senator Ed Markey, introduced a resolution 'Recognizing the duty of the Federal Government to create a Green New Deal'. This had as key components:

- Delivering environmental justice and equality
- Reducing greenhouse gas emissions to stay below 1.5°C of global warming
- Creating well-paid unionised jobs
- Investing in infrastructure and industry
- Ensuring other environmental goals including clean water, air and food, and a sustainable environment

The resolution was not brought to a vote.





## THE BIDEN ADMINISTRATION AGENDA

The campaign platform of Joe Biden during the presidential election of 2020 did not contain a Green New Deal policy either, as it was felt too close to the party's left wing. However, the 'Biden Plan for a Clean Energy Revolution and Environmental Justice'<sup>i</sup>, part of his successful election run, did contain very similar elements, as well as to those of his defeated left-wing challenger in the party primaries, Bernie Sanders. Given the economic damage caused by the Covid-19 pandemic during 2020, following his election victory and before his inauguration, Biden announced a 'Build Back Better' agenda with seven main elements:

1. Build modern infrastructure and train American workers.
2. Position the US car industry to "win the 21<sup>st</sup> century" with US-invented technology.
3. Convert the US electricity generation sector to zero greenhouse gas emissions by 2035.
4. Upgrade energy efficiency in buildings, upgrade schools and build affordable housing.
5. Invest in clean energy innovation.
6. Advance sustainable agriculture and conservation.
7. Deliver environmental justice, a just transition, and an equitable economy.

The three major pieces of relevant legislation, and two of President Biden's flagship international initiatives, are very much in keeping with the Green New Deal framework.

The Infrastructure Investment and Jobs Act 7 was signed into law in November 2021, with a total of \$1.2 trillion of spending.

It has many key environmental-related provisions, including<sup>ii</sup>:

- Grid stability and power system reliability, including \$65 billion for expanding the grid
- Accelerating carbon capture, hydrogen, electric vehicle charging and energy efficiency
- \$7.5 billion for low-emission buses and ferries and \$7.5 billion for a network of electric vehicle chargers
- \$39 billion for modernising public transport and \$66 billion for rail
- \$21 billion for cleaning up pollution and abandoned gas wells
- \$8 billion for four clean hydrogen hubs, and \$1 billion for research and development of clean hydrogen with the aim to reduce its costs to \$2 per kg by 2026.
- Providing resilience to extreme weather events
- Reversing factors that hinder environmental justice



The Build Back Better Bill<sup>iii</sup> was passed by the House of Representatives on 21st November 2021, but as of the time of writing, was still facing reconciliation in the Senate, with hopes of passage before Christmas. It has a total cost estimated at \$2.2 trillion. Key areas relevant to a 'Green New Deal' include:

- \$555 billion for clean energy, estimated to deliver a reduction in greenhouse gas emissions of 1 billion tonnes of carbon dioxide equivalent in 2030 (2019 emissions were 6.6 billion tonnes)<sup>iv</sup>.
- Increase the tax credit for carbon capture from \$35-50 per tonne to \$60-85 per tonne and include a \$180 per tonne credit for direct air capture of CO<sub>2</sub>, potentially enabling 210-250 million tonnes of reductions annually by 2035<sup>v</sup>.
- Introduce a tax credit for low-carbon hydrogen, ranging from \$0.45-3 per kg of hydrogen depending on the carbon intensity of its production<sup>vi</sup>. Given the Infrastructure Act's \$2/kg cost target, it can be seen this is potentially a very attractive incentive.
- Saving money for middle- and lower-income Americans via home efficiency upgrades and electrification (e.g. \$1250-4000 for heat pumps, \$2000-4000 for efficiency retrofits), rebates for solar panel installations (up to 30% of system cost) and electric vehicles (\$7500-\$12500 each), and grants and loans for rural communities.
- Incentives for manufacturing of low-carbon technologies in the USA, and for the decarbonisation of heavy industries such as steel, aluminium and cement.
- Environmental justice through investments in disadvantaged communities, and a diverse 'Civilian Climate Corps' modelled on the Peace Corps, working on public lands and climate resilience.
- Investment in natural ecosystems for conservation and boosting climate resilience.

As well as their energy- and environment-related aspects, both these bills contain many other provisions on social welfare, health, education, tax and other areas. The tax provisions of the Build Back Better Bill in particular target tax loopholes and unjustifiably low rates used by corporations and high-income taxpayers. They raise taxes and royalties for fossil fuel companies and introduce a fee for methane leakage<sup>vii</sup>.

Like the EU (discussed below), the US is considering a carbon border adjustment mechanism (CBAM) that would impose tariffs on carbon-intensive goods imports: iron and steel, cement, fertilisers, aluminium, electricity, natural gas, oil and coal. This may also help swing business behind a carbon price or least a continuation of GND-type policies, even if the Republicans retake control of Congress and/or the presidency.



## INTERNATIONAL ASPECTS

The GND and, in general, the greater comfort with an enlarged role for government in the economy has been justified by the perceived need for the US to compete with China.

The 'Build Back Better' concept has its international extension in the Blue Dot Network between the US, Australia and Japan, launched in November 2019<sup>viii</sup>, and 'Build Back Better World' (B3W), announced at the G7 summit in June 2021. These programmes might partly be considered as 'Green Marshall Plans', but their clear primary inspiration is as a counterweight to China's Belt and Road Initiative (BRI). The BRI emphasises massive investment in physical infrastructure to improve connectivity across Eurasia and the Indian Ocean. But it has been criticised as leading countries into debt dependence on Beijing, taking little account of local social and environmental needs and serving as an outlet for surplus Chinese industrial capacity. Its power generation projects have focussed almost entirely on coal, not low-carbon energy.

B3W, an initiative of the G7 countries, now seeks to mobilise public and private funding for some of the estimated \$40 trillion of infrastructure required in low- and middle-income countries by 2035.

The Biden administration has ruled out funding unabated fossil fuel projects, except in some very limited cases of geostrategic importance, where they aid low-income countries with no alternatives, or have significant environmental benefits. Therefore, B3W projects and funding are likely to be more environmentally focussed.



## THE EU 'EUROPEAN GREEN DEAL'

The specifically climate-focussed parts of European Green Deal (EGD) have a longer pedigree than in the US. The Emissions Trading Scheme (ETS) began operations in 2005 and prices have recently risen to €80 per tonne of CO<sub>2</sub> (\$90)<sup>ix</sup>, a level that has a major impact on investment decisions. Greenhouse gas emissions per person in European countries range between a third and half of American levels, making the job of decarbonisation less challenging. A series of European directives have set legal requirements for shares of renewable energy and improvements in energy efficiency.

The EU also has a more recent robust tradition of 'industrial policy'. France was long a proponent of such an approach and did not go through such deep economic liberalisation in the 1980s as the US and UK. Paris and Rome in particular have tried to maintain 'national champions' in the oil and gas, electricity, nuclear and aerospace sectors, with preferential government shareholdings or at least close political coordination.

The EU operates five structural funds intended to support under-developed regions and sectors<sup>x</sup>. In July 2020, a € 750 billion fund, Next Generation EU, was launched to promote recovery from the pandemic. Alongside economic revival, this fund also intends to promote the green transition, a just climate and digital transition, and economic modernisation. Therefore, the EU has long running and substantial experience of deploying structural funds to tackle issues of underdevelopment.

The integration and restructuring of post-Communist states in Eastern Europe during their accession to the EU between 2004-11, slow recovery from the 2008-9 global financial crisis and the complex negotiations to rescue

the Euro have improved coordination on economic policy. Still, the EU is a group of 28 countries with differing levels of development, and varying environmental positions, including states such as Poland with a heavy legacy of coal mining and use. A high degree of consensus is required for decisions.

The European Green Deal was actually presented just before the pandemic, in December 2019. Its primary intention is to make the EU the world's first carbon-neutral bloc by 2050. Within this overall concept are a broad range of targets, policies, regulations, laws and institutions, for instance the EU Strategy for Energy System Integration to support greater electrification and clean fuels, and the European Clean Hydrogen Alliance. The EGD mostly concerns energy but also has important aspects of recycling and 'circular economy', biodiversity, pollution reduction, and agriculture via the 'Farm to





Fork' programme. Its resulting policies must also work within a long tradition of European energy policy cooperation, which includes neighbouring countries such as Switzerland, Norway and the UK; non-EU but nevertheless Europe-centric institutions such as the Energy Charter Treaty; and other bodies, notably the International Energy Agency based in Paris.

The Green Taxonomy is an important adjunct to the EGD. It defines which activities can be considered 'sustainable', to avoid 'greenwashing' by companies and define the acceptable areas for public funds. However, its definition has become highly politicised, due to divergent energy systems and philosophies between countries. In particular, France has strongly pushed for the inclusion of nuclear power which Germany has opposed. There has also been debate over the inclusion of natural gas as a 'transition fuel'.

'Fit for 55' is the legislative package intended to deliver a 55% cut (on 1990 levels) in the EU's GHG emissions by 2030. It is thus the short-to medium-term climate-focussed component of the EGD, and could enter law by 2023<sup>xi</sup>. Key components include extending the ETS to cover shipping, road transport and buildings; and introducing a CBAM. There are sectoral targets and rules for renewable energy deployment, bio-sequestration (by forestry and other land use changes), and low-carbon fuels. A Social Climate Fund is intended to address energy poverty or – a somewhat novel concept – 'mobility poverty', caused by higher energy prices during the transition to new energy sources. Building renovations to improve efficiency will also create skilled manual jobs and improve resilience to extreme weather. The reform of the Common Agricultural Policy (CAP), which makes up a third of the EU's

budget, will shift spending from promoting food self-sufficiency, to supporting smaller farms, and rewarding cuts in greenhouse gas emissions, and increases in 'carbon farming' and more sustainable land management.

Within the EU, individual countries have pandemic recovery and economic plans which may be aligned with the European Green Deal, such as Germany's Package for the Future<sup>xii</sup>.

Like the US, the EU has also sought to develop its international financing capacity to compete with the BRI. The 'Global Gateway' is a €300 billion initiative with a focus on digital, health and renewable energy, in contrast to the 'hard' traditional infrastructure of the BRI. It is, at least at the moment, significantly smaller, but intends to reflect European values by being transparent and respectful of host countries and giving higher priority to environmental standards<sup>xiii</sup>.

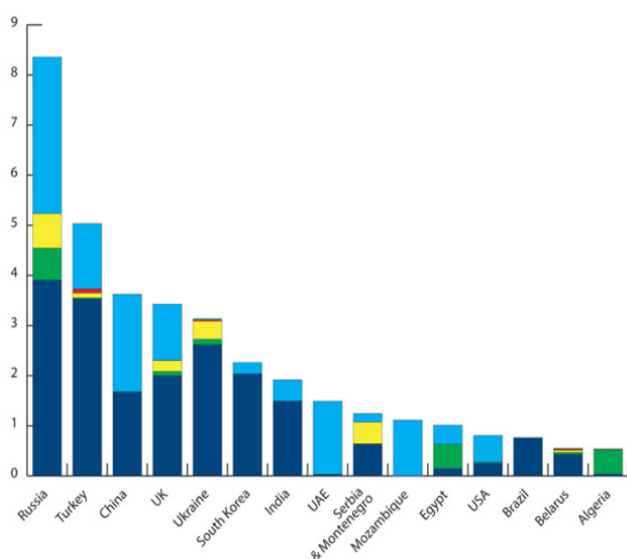


## CARBON BORDER ADJUSTMENT MECHANISM

The EU intends to protect its energy-intensive industries via a CBAM. Its current list of such products is similar to that of the US, though not currently including fossil fuels (these may be dealt with by a maximum carbon footprint standard). The CBAM is intended to prevent 'carbon leakage', i.e., the loss of business to countries with less stringent climate policies. It is furthermore designed to encourage those countries to reduce their emissions. This would affect neighbouring trade partners of the EU that export energy-intensive goods to it: notably, Ukraine, Russia, Turkey, and to some extent North Africa and the Middle East.

The CBAMs of both the US and EU have another clear objective, if less openly spoken, which is to limit Chinese imports and ensure that the blocs can develop indigenous 'green' manufacturing industries in areas such as electric vehicles and advanced batteries. They do not want to repeat the experience of the solar industry, which was supported by

Figure 2 EU imports potentially affected by a CBAM, top 15 countries<sup>xiv</sup>



European subsidies but has now mostly moved to China. Because of its heavy reliance on coal, China will find it more difficult to comply with a CBAM.

The hope is that the EU and US would be able to harmonise their CBAM mechanisms, perhaps including sectoral deals in areas such as 'green' steel, phasing out internal combustion engine vehicles, and low-carbon aviation. Major trade partners, notably the UK, Mexico, Canada, Japan and South Korea, would then be likely to comply too, whether from choice or necessity.





## EGD CHALLENGES

The challenges faced by the EGD relate to the scope of its ambition, to the potential side-effects, and to the divergence in interests between EU member states.

Environmental groups and activists have criticised the aims and their supporting policies as insufficient or unclear. But a 40% cut in GHG emissions by 2030 still represents an enormous change. The 25% cut from 1990 to 2019 took three times as long and was assisted by the closure or refurbishment of highly inefficient industry and housing in post-Communist eastern Europe. Particularly difficult areas include residences, where the EU has an enormous legacy of old buildings to upgrade; aviation, where 'sustainable aviation fuels' (SAFs) are only produced today in tiny and very expensive quantities; and heavy industry, where new processes including electrification, CCUS and hydrogen will have to be introduced without damaging competitiveness.

Despite the social funds, there are still significant concerns over the impact of green measures increasing energy prices in the short term, and potentially damaging reliability. Several Eastern European countries, notably Poland but also including the Czech Republic and Romania, have been vocal about slowing decarbonisation or giving them special treatment. EU funds will help achieve agreement but likely at a significant cost. The creation of 'green jobs', though touted as a major benefit of the EGD, is also questionable. The cost per job created tends to be high; renewable energy creates many jobs in installation but very few once in operation; and a labour-intensive energy system does not play well to the EU's strengths in high-skilled, high-tech businesses.

Nevertheless, EU institutions and key member states are solidly behind the EGD and 'Fit for 55', and public opinion has moved steadily in the

direction of more radical climate action. This could be derailed by a period of blackouts or energy price spikes, but the advance of green technologies such as electric cars, heat pumps and rooftop solar panels in everyday life also tends to make the EGD visible, familiar and popular.





## COMPARISONS TO OTHER REGIONS

Politicians and parties in various other countries have at times proposed 'Green New Deals' to cover a range of policies. The Covid-19 pandemic has given impetus to these via economic recovery platforms. These include the Green Party in Australia, and a coalition of environmental groups in Canada. The Democratic Party in South Korea won a majority in 2020 and proposed its GND, covering carbon-neutrality by 2050, a carbon tax, an end to coal investments domestically and internationally, a Regional Energy Transition Centre to help coal workers into new jobs, and expanded spending on renewables. Most of these are energy/environment-focussed policies, but the transition centre is a proviso in line with the broader ambitions of GNDs elsewhere.

The UK has become one of the most successful European countries at decarbonisation. This has mostly been driven by eliminating coal in favour of gas and renewables, backed by a carbon price floor. Now, having set a 2050 net-zero target, it is facing the more challenging tasks of decarbonising industry, home heating and transport. It is pursuing this via a wider-ranging and less ideological plan than that of the EU, which includes major roles for heat pumps, EVs, offshore wind, nuclear, CCUS and hydrogen. The Conservative government's social agenda is reflected under the 2019 manifesto slogan of 'levelling up'<sup>xv</sup>, intended to address wide regional disparities, particularly between the wealthy south-east, and Wales and northern England which suffered badly from deindustrialisation. It has a strong legacy oil and gas industry. Its North Sea Transition Deal of March 2021 is intended to reduce emissions on the path to net-zero, with £14-16 billion to be invested by 2030 jointly by government and industry.



CCUS clusters in north-east England, Teesside and Scotland would support decarbonisation of industry there and, along with wind power, a continuing future for the North Sea offshore industry.

The Liberal (right-wing) government in Australia, by contrast, has proposed a 'gas-led recovery', and its climate plan focusses almost entirely on new technologies without addressing mechanisms and incentives for deployment.

Russia has a low-carbon development strategy with a net-zero goal by 2060. It is significantly more ambitious than previous iterations, but still relies heavily on forestry offsets<sup>xvi</sup>. It also does not appear to have the social agenda of GNDs.

Both China (2060) and India (2070) have set net-zero goals. China in particular has used its version of 'industrial policy' and fiscal stimulus extensively, but usually with a strong focus on heavy industry and thus emissions. The government has been seeking to improve air quality via a switch from coal to gas for heating and reducing energy intensity with targets for high-emitting industry such as aluminium. Prime Minister Narendra Modi 'Make in India' initiative is intended to boost domestic manufacturing. But neither has a comparable policy to a GND.

The relevance of the GND concept for lower income developing countries is debatable. Many of them wish, of course, to develop value-adding industries and to create jobs for rapidly expanding working-age populations. But they have often been hit hard by the pandemic, still struggle to achieve adequate levels of vaccination, and have much less fiscal space for new spending programmes. Energy access remains a more pressing issue than climate neutrality.

South Africa is one relevant example. At COP26, it, along with the UK, USA, France, Germany and the EU, issued a declaration on a just transition<sup>xvii</sup>. This aims at decarbonisation and phasing out coal in South Africa, while protecting workers and communities, initially by mobilising \$8.5 billion over the next 3-5 years. This is significant as probably the most prominent case of a developing and highly fossil fuel-dependent economy committing to decarbonisation and being supported to address the social consequences.





The various Green Deals interact in a complex way with other international initiatives and trends. Most obviously, these include:

- Monetary policy, via the currency effects of government borrowing and spending. This is within the purview of institutions such as the IMF and the ECB.
- Financial policy, via the World Bank and the regional development banks, including the ESG frameworks applied, which types of projects will not be funded (e.g., fossil fuel extraction), and which may receive preferential funding.
- Trade policy, via the WTO, trade blocs such as the EU and USMCA, and multilateral trade agreements such as the Regional Comprehensive Economic Partnership. This includes labour and environmental standards, "buy local" requirements, import and export tariffs and quotas, and other policies that may conflict with trade agreements.
- Environmental agreements, notably the Paris Agreement (2015) and the associated NDCs. Since each country determines its own NDCs, they should be consistent with a green new deal.
- The Sustainable Development Goals (SDGs) set up by the UN General Assembly in 2015, which relate to economic, environmental, health, employment, education, and other issues of wellbeing. The Green New Deals have a large area of overlap, particularly in environment and employment. However, the SDGs are global whereas the green new deals described here relate to the EU and US.





## POLICY IMPACTS

Concerns over the 'Green New Deals' cover five main areas: accusations that the post-pandemic spending was not well-targeted to climate compatibility and often favoured fossil fuel interests; government over-spending and inflation; excessive reliance on government fiat rather than market mechanisms; lack of true innovation; complex and possibly conflicting social, environmental and economic objectives; and the negative global economic and diplomatic implications of a turn to protectionism.

Initial fiscal stimulus during the pandemic was not well-targeted to environmental goals. It contributed to a strong rebound in 2021 greenhouse gas emissions after the steep drop in 2020. Some politicians, particularly from eastern Europe, wanted to ease climate goals in the pursuit of short-term economic recovery.

Inflation has already spiked as part of the post-pandemic rebound, particularly in the US. That in turn may lead to rising interest rates, which would undermine the case for expanded government spending. Much of this was predicated on the concept that ultra-low interest rates made it optimal for the government to spend on long-lived infrastructure.

The Green New Deals do attempt to focus on the future, at least the near-term and apparently reasonably foreseeable future, with support for technologies such as hydrogen, batteries and CCUS. However, their focus on preserving or repurposing manufacturing jobs, including a nostalgia for heavy industries such as steel, may commit the government to prop up underperformers, or those who are skilled at political lobbying. This is a particular threat in the US given the oversized political importance of certain states.

This leads into the numerous and potentially conflicting goals of the GNDs. Preserving traditional manufacturing jobs may not be compatible with encouraging new industries. But the employment generated by innovative sectors is likely to require very different skills, making it hard for workers in older industries to retrain and relocate. Fossil fuel jobs are often well-paying, and even somewhat similar new roles such as solar and wind installation do not offer comparable salaries. But ensuring the required rapid transition away from high-carbon extractive and manufacturing industries will have negative effects on individuals and communities.



## IMPLICATIONS FOR LEADING OIL AND GAS PRODUCERS

The post-pandemic spending has led to a strong economic recovery, particularly in Europe and the US, which has driven up energy demand and hence oil and gas prices, especially for liquefied natural gas (LNG).

It is hard to disentangle the effects of the GNDs from concurrent climate policy around the Paris Agreement and COP26. For instance, bans on financing new fossil fuel development are increasingly widespread and have an important effect in entrenching the capital-rich and low-cost oil and gas producers.

The GNDs, though, will likely have a long-lasting impact in four main areas:

- They will reinforce a coalition of business, workers, unions and government institutions, thus making it harder to slow or reverse climate policies.
- They will create a legacy of long-lived low-carbon infrastructure.
- They may, depending on design, lead to breakthroughs or rapid advances of some emerging low-carbon technologies.
- They will externalise carbon pricing (whether explicit or implicit) and thus push trade partners of the main blocs (US and EU) to deepen their own climate action.

High, sustained levels of government spending and construction will create energy demand, even if this is met increasingly by low-carbon alternatives. Associated materials, notably petrochemicals and plastics, steel, aluminium, cement and transition-related minerals (copper, silver, nickel, lithium, rare earth metals, graphite, silicon and others) will be heavily required. Plastic recycling, the 'circular economy' and the incorporation of bio-feedstocks are increasingly important.





Such areas create opportunities for oil and gas producers who have access to the relevant resources or who can create them using hydrocarbons in a low-emissions way.

Support from the GNDs could help hydrogen and derivatives (ammonia, methanol, other synfuels) take off as a major business. Carbon capture and storage, and direct air capture, should advance substantially given the strong support now provided by European carbon pricing and US tax credits. Both of these technologies play well to the existing assets and skills of petroleum producers.





## CONCLUSION

Green New Deals are not a programme in themselves, nor a governing philosophy. They are, though, a platform for numerous initiatives which aim to deliver, simultaneously, environmental and climate improvement; economic development, employment and reduced inequality; and social gains especially for marginalised communities. These goals are associated with the left wing of politics in Europe and the US. But the right wing too could potentially support a version that emphasises industrial communities alongside strong national defence and competition with China.

The GNDs will likely create a large constituency in favour, which will give them staying power, even when they are more costly or less successful than hoped. They will have an important influence beyond their borders, particular on close trade partners.

The potential negative consequences of the GNDs could be ameliorated by:

- Setting clear phase-out dates for targeted support, while ensuring these are not so soon that they deter investment.
- Giving more attention to the research and demonstration of genuinely breakthrough technologies and rewarding achievement of objectives rather than specific technologies.
- Keeping environmental standards objective, without ruling out any technologies, on ideological grounds. So, technologies such as nuclear, CCUS, and 'blue hydrogen' should be considered, as long as they can compete in cost, performance, and emissions reductions.

- Avoiding narrow protectionism and broadening the scope of alliances as far as possible. B3W and Global Gateway should cooperate or at least coordinate rather than trying to compete individually with BRI.
- Limit the extent to which GND policies are framed as a geopolitical competition with other countries (particularly China) and seek environmental and economic cooperation with them in specific areas.
- Using market-based methods (e.g., carbon pricing) to incentivise emissions reductions, with separate and clearly defined policies to achieve social and employment objectives.
- Be flexible and willing to change course where policies are clearly having counter-productive effects, without losing site of the end-goals.

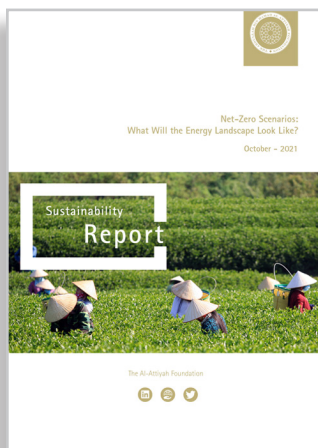


## APPENDIX

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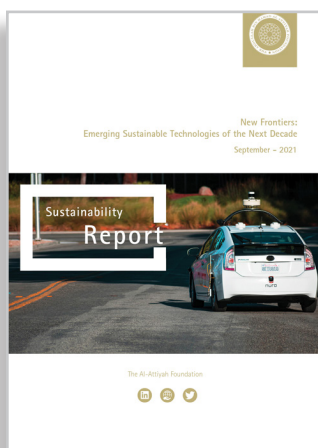
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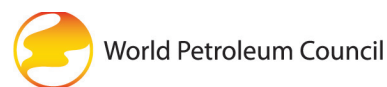


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