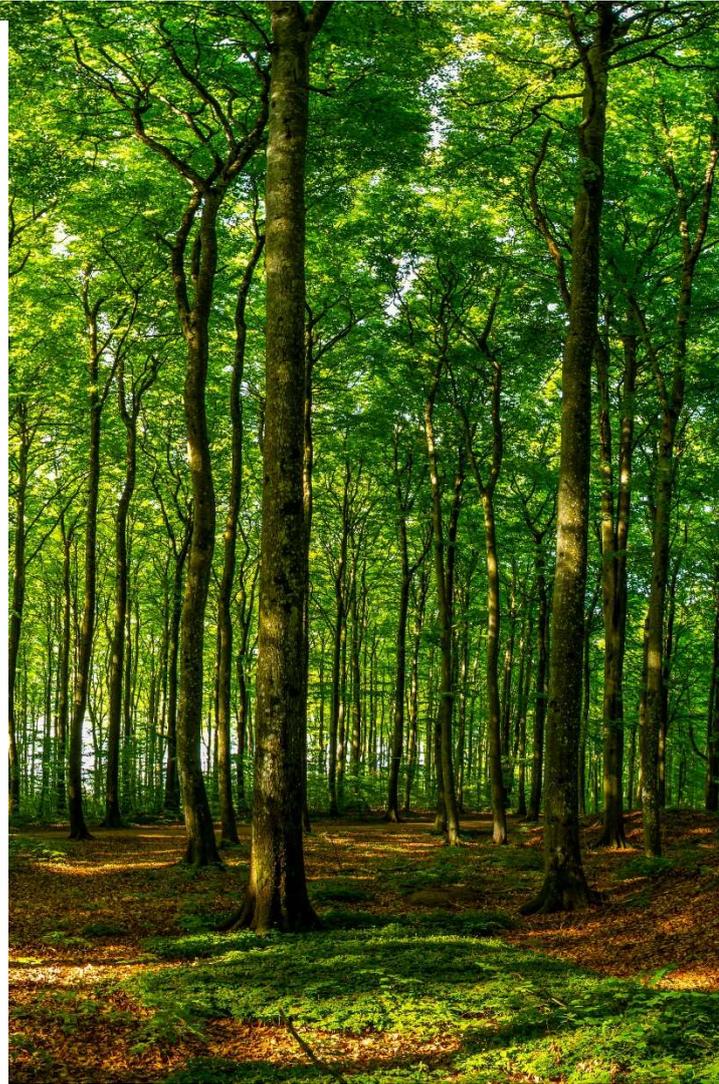

Dorset 2030

Executive Summary



Zero Carbon Dorset

Dorset 2030

Executive Summary

This is the first in what is proposed to be a series of annual reports assessing the current level of greenhouse gas (GHG) emissions across the county of Dorset, setting out the changes required to achieve a zero emissions scenario by 2030 and tracking progress towards this goal. It aims to document what must be achieved, while acknowledging that the two local Councils cannot make all these changes themselves, that the sum of actions by individuals alone will be insufficient within the required timescales, and that there will be significant reliance on wider Government policies. It is a transformative report that requires engagement across every sector of society.

Dorset 2030 is a volunteer led and produced report from the Zero Carbon Dorset project that has taken input, directly and indirectly, from more than a hundred people, from a wide variety of backgrounds; from academics to activists, students to sustainability professionals, community leaders to elected councillors. It aims to define a vision of what living in a county where the climate and ecological crises are being solved while ensuring that quality of life is not only maintained but, for many, actually improved. Having defined a vision for each of the key areas (transport, housing, energy, land use etc.), it then seeks to measure where we are now, set out what we need to do to get to where we want to be and presents over 120 case studies to share and inspire others to act.

Dorset 2030 Vision

By 2030 we have risen to the greatest challenge humanity has ever faced and, as well as preventing environmental breakdown, the solutions we have implemented have started to address many of society's long-standing issues. The overwhelming majority of the population are leading happier, healthier lives. Communities across Dorset are more connected, work-life balances have improved and everywhere the return of nature is evident.

Our Approach

The Centre for Alternative Technology has been publishing Zero Carbon Britain reports for more than a decade. These have shown how, with known technology and no nuclear, we already have all the tools we need to address the climate crisis while living healthier, happier lives. These reports were the initial inspiration for this project, prompting the question, if we can get to zero, what would that look like and feel like for those of us living in Dorset.

The aim of this report is to focus on the ten areas or ‘dynamics’ we need to change (see Figure 1). Seven of these areas have been assessed against a set of qualitative measures set out in five categories (see Figure 2), one area (Adaptation & Offsetting) has been held over for future reports.

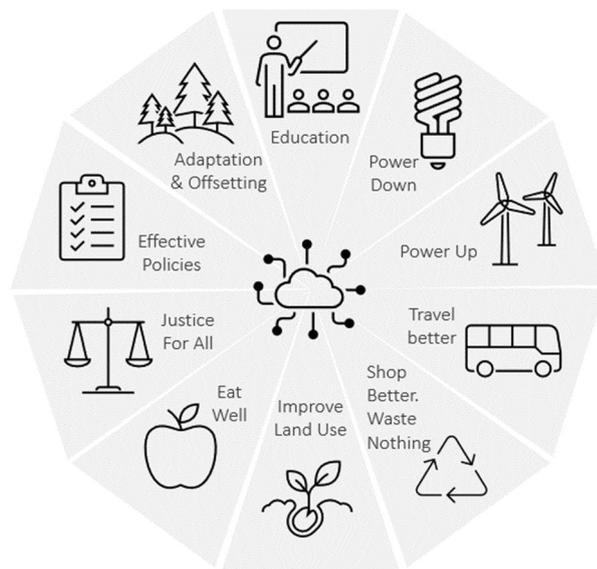


Figure 1. The 10 ‘Dynamics’ assessed in the report.

Category	Assessment Criteria
1	Little evidence of any action being taken to address the area in question.
2	Some evidence of action being taken but this is more ad-hoc than planned or coordinated across the county.
3	Detailed plans have been set out which, if implemented, will move the area <i>towards achieving</i> the vision, but current activities are insufficient to achieve the vision by 2030.
4	Detailed plans have been set out which, if implemented, <i>will achieve</i> the vision by 2030. Current activities are sufficient, if maintained, to achieve this.
5	The vision has been achieved or activities are sufficiently robust to have confidence this will be achieved by 2030.

Figure 2. Assessment Criteria

Setting the context

Reports from the United Nation’s **Intergovernmental Panel on Climate Change (IPCC)** have identified that the consequences of allowing temperatures to rise by 2° centigrade above pre-industrial levels (rather than the 1.5°c ‘ambition’ set out in the Paris Agreement) are stark. Extreme weather events, rising sea levels, disruption to food supplies and potential societal instability will directly affect 100’s of millions more people and indirectly threaten the whole of humanity. Continuing emissions at business-as-usual levels threatens our very existence. Despite this, emissions are still increasing in many locations; they are little better than flat in western economies and, as can be seen from Figure 3 below, even after COP26 in Glasgow, global action is still nowhere near the levels required to keep temperatures to 1.5°c.

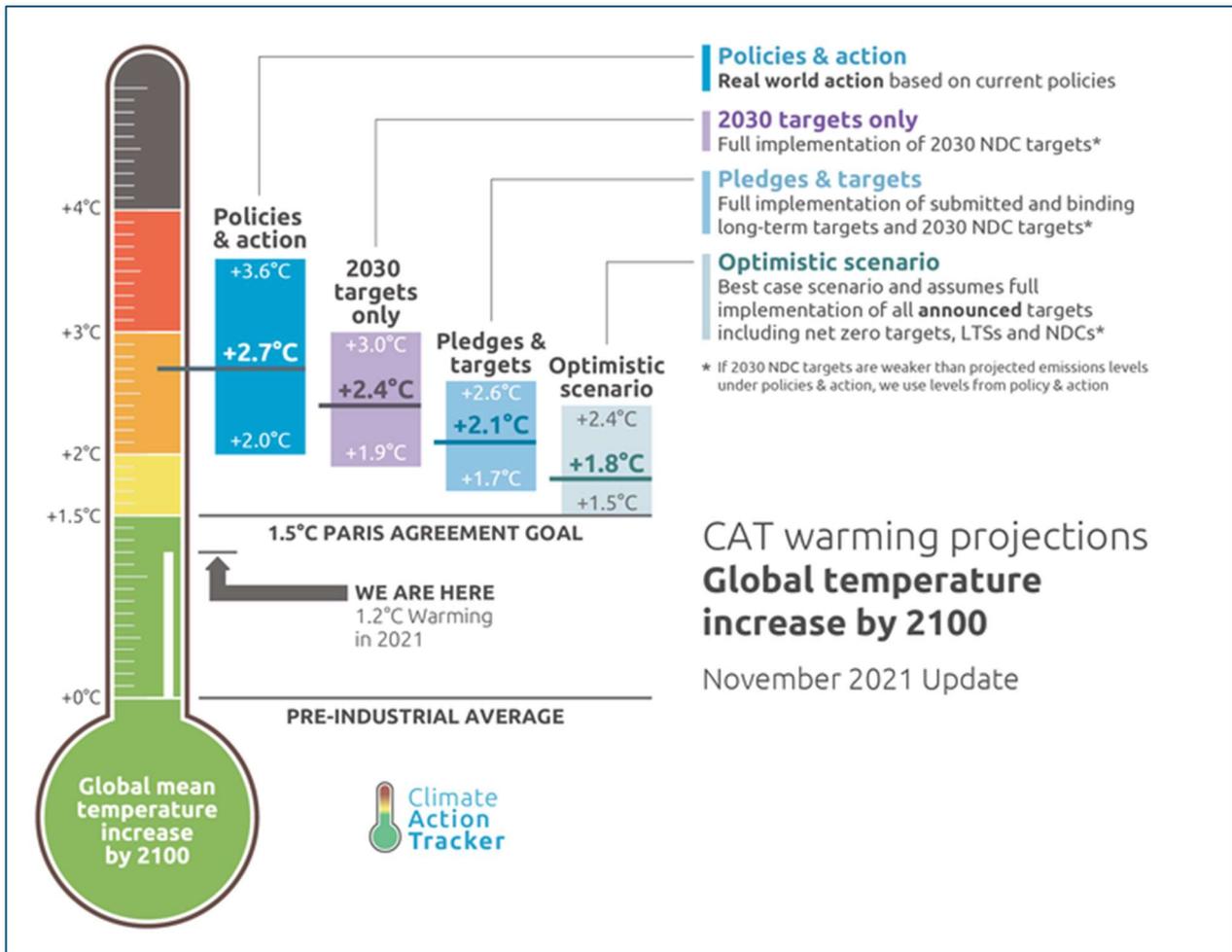


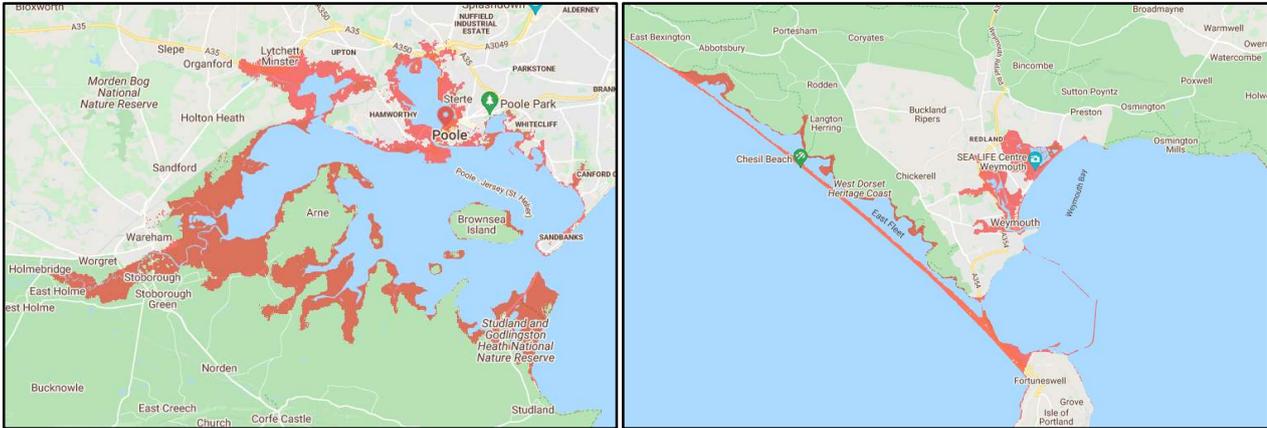
Figure 3. Climate Action Tracker. Global Temperature Projections. Source: <https://climateactiontracker.org/>

Alongside, and in part due to, the climate crisis we are facing **ecological breakdown**, with many of the earth’s natural systems including our soils, water supply, air quality and biodiversity under threat (predominantly through expansion of human activity, over consumption, and the impacts of waste and chemical pollution).

Dorset Impacts

Locally, we are not only susceptible to increasingly extreme weather events (both drought and intense rain storms) but could also witness the loss of species unable to cope with a warmer environment; our heaths and countryside may change dramatically, exacerbated by the arrival of invasive species which were once incapable of taking hold in a temperate climate.

Sea level rises could impact a swathe of our coastal regions by mid-century as outlined in **Climate Central's** global sea level rise projections. Many of the areas in and around Poole Harbour, Weymouth sea-front and Chesil Beach, shown in red in Figures 2 & 3, (as well as many others not shown here but available to view on the website) are at risk of rising sea-levels and storm surges by 2050. The climate crisis is also a health crisis, with the impacts of air pollution already evident and the threat of heat stroke a growing issue (something that could



Figures 4 & 5. Climate Central Global Sea Level Rise Projections. Source: <https://coastal.climatecentral.org/map/>

disproportionately affect the above average older population in Dorset). As with most of the above areas, the cost of prevention will be far less than the cost of delayed action.

Dorset GHG Emissions

We emit around 3,129,000 tonnes of greenhouse gases (3,129 ktCO₂e) while the way we use our land (including trees and all natural carbon sinks) takes up ('sequesters') just 145,000 tCO₂e (see Figure 6 below). These figures do not include emissions associated with goods we import, aviation or shipping. This is the immediate challenge, to reduce emission levels and increase sequestration, initially to net zero*, then ultimately to a negative number to cover exported emissions.

*By net zero we mean the balancing of emissions by natural means, not through purchasing offsets, as these do not reduce existing greenhouse gas emissions.

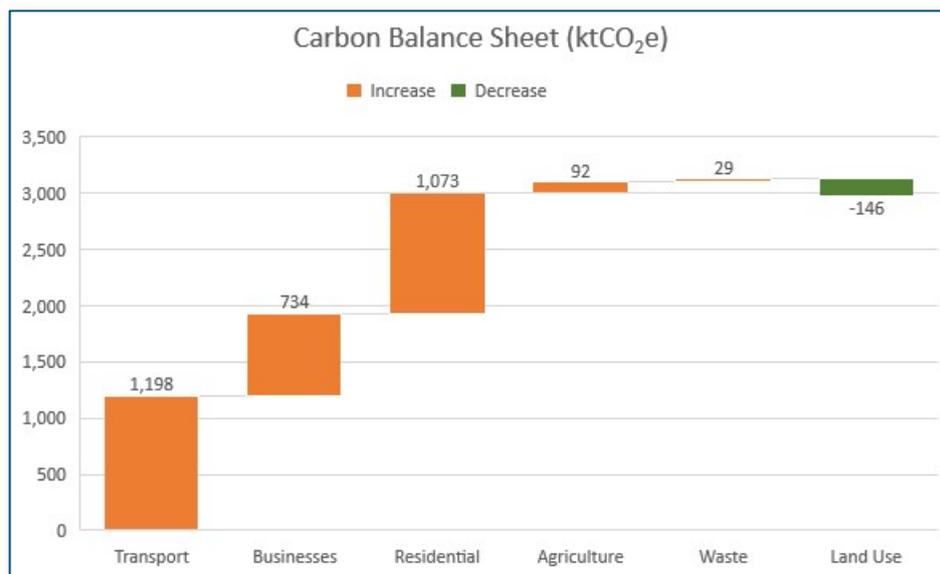


Figure 6. Combined emissions data for both council areas

Key Findings

Overall

A clear picture has emerged which suggests that while there are some really encouraging actions (led by both Councils, individuals, community groups and businesses), many of which we have included as case studies, we

are nowhere near the level of activity required to address the issues we face. Both Councils need to accelerate the implementation of their CEEs, both to cut their GHG emissions and through their leadership inspire others to take action across the county.

However, in collating this report, it is clear we have the solutions. They just need to be scaled exponentially and at pace.

Assessment

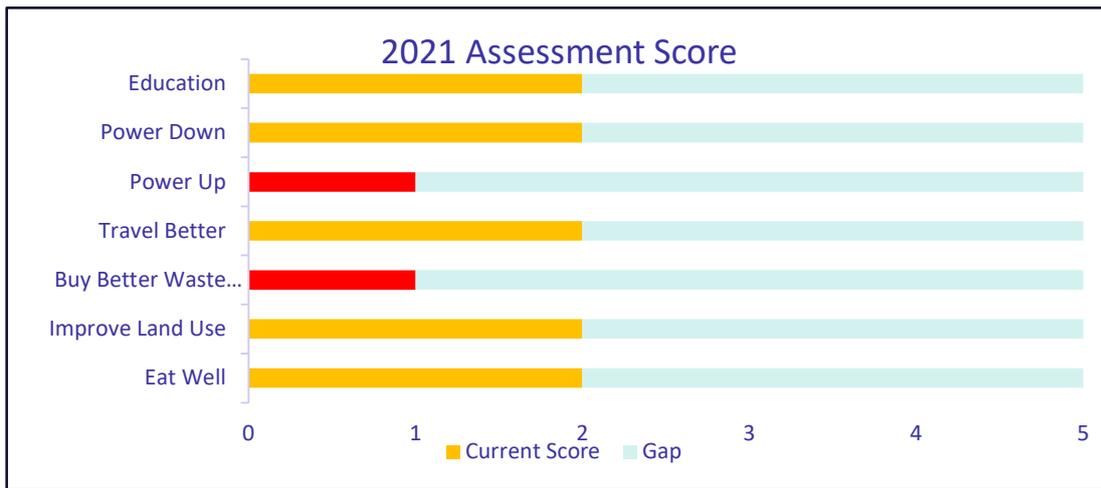


Figure 7. Assessment Score by Area.

Based on analysis to date, across 7 key areas, we believe the assessment rates at 12 out of 35 (the score for each area is shown in Figure 7). We have chosen not to score the areas of Justice or Policies for this first report; choosing to focus on areas which can be more readily quantified. Adaptation and Offsetting will be included in the next report.

Findings by area

Common threads

Both **Dorset** and **Bournemouth, Poole & Christchurch (BCP)** Councils declared climate and ecological emergencies in 2019. These declarations are based on the scientific evidence that we have **less than a decade** to take sufficient action to prevent greenhouse gas emissions exceeding levels which scientists agree will lead to irreversible and catastrophic climate change. While their plans are still emerging (and we have commented on the information we could access at the time) both appear to be developing too slowly and lack the desire to take a leading role.

Note * by 'net' zero we mean the balancing of emissions by natural means, not through purchasing offsets, as these do not reduce existing greenhouse gas emissions.

In common with most of the western world, there is an unnatural separation and disconnect between our daily lives and the natural environment and our energy needs. The latter may be understandable given the historic reliance on power generated elsewhere. However, with so much natural land and such a large farming presence in the county it is disappointing that we appear to fair no better with regard to understanding our food chain or the impact our daily activities are having on the wider environment.

Education

Some schools, colleges and universities are embedding climate change and the UN SDGs (Sustainable Development Goals) in their curricula to equip students with the skills and knowledge to tackle the crisis. There is a great opportunity for people to re-train for the skills for a low/zero carbon economy. All citizens need continued support in understanding the crisis and what they can do to help tackle it.

Communications from both Councils are not adequate in raising awareness of the wider environmental and climate problems faced by the area, do not outline or engage the wider community with the changes required and do not reflect the 'emergency' that both have declared.

Power Down

By 2030, energy use needs to reduce by 60%. 265,000 homes will need some form of retrofitting to make them more energy efficient; helping create jobs, reduce energy bills and provide more comfortable homes. All new homes must be built to zero carbon standards. Both Councils need to lobby government to legislate for this.

Power Up

Dorset needs to massively accelerate the installation of renewable energy (solar and wind) to meet energy demands. Currently renewables account for **just 5% of Dorset energy needs**. **Dorset Local Enterprise Partnership** research shows Dorset could produce enough wind and solar energy to meet its energy demand, attracting £2 billion of investment and creating jobs and other benefits. Our analysis shows the impact of attempting to move to 100% renewables without reducing energy use.

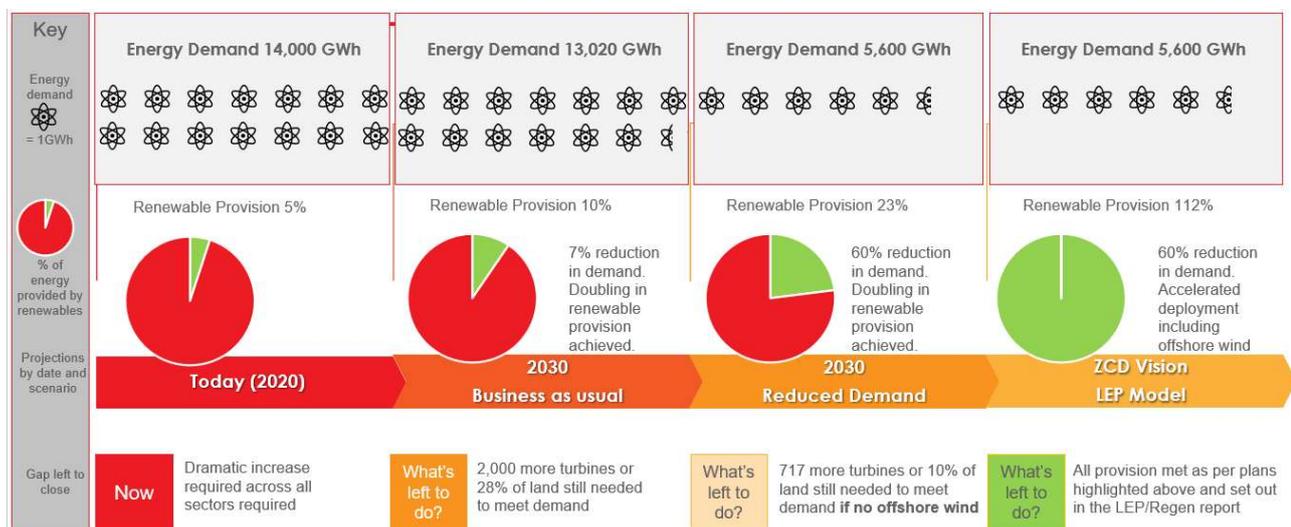


Figure 8. Routes to 100% Renewable Provision

Travel Better

Dorset needs a fundamental shift in thinking about how we move around and stay connected, reconfiguring our streets and developing a comprehensive vision and plan for the whole area. It needs superfast broadband provision across the whole county, to help employees work from home and so reduce the need to travel. Continued investment in active travel, public transport and EV charging infrastructure is also essential to decarbonise transport.

Energy infrastructure needs to be upgraded to support the electrification, from renewable energy, of heating and transport.

Buy Better Waste Nothing

We remain a highly wasteful county and, despite the higher awareness of issues such as single use plastic and the damage to the environment caused by fast fashion, food waste etc., Dorset's waste has dropped by **just 2.6% over the past 4 years**. Little more than ½ of our waste is recycled, with the majority of the remaining waste sent for incineration with energy recovery. The good news is that there has been a significant reduction in waste sent to landfill.

All of us, as informed consumers, need to buy better (including buying less) to reduce the overall amount of waste we produce. There are encouraging 'win on waste', 'war on waste' and 'repair café' initiatives across the county that provide practical solutions. Businesses need to embrace the circular economy, so that materials stay in the supply chain longer.

Land Use

Agricultural subsidies must be transformed to support a food system that is good for the environment and our health; rewarding farmers for producing quality foods and protecting/enhancing soil and habitats. Dorset has some of the UK's best habitats and biodiversity, but modern farming practices and urban development have significantly degraded the land over recent decades.

Nature based solutions, such as tree planting, will help mitigate climate change and reduce the worst impacts of climate induced extreme weather events, whilst also providing space for nature. The pandemic showed the importance of local green spaces for people's health and wellbeing and there's a great opportunity to improve such access for all and address the climate and ecological crisis.

Eat Well

Reducing the amount of meat and dairy we eat, buying local and seasonal produce, and reducing food waste will all cut carbon emissions and can save money. However, we also need to recognise the issues of food poverty and the attraction of cheap processed foods. Solving this issue is wider than simply encouraging people to change their eating habits.

Justice

There is little recognition in CEE plans or general discourse regarding the interlinked issues of justice and environmental breakdown. Community engagement is essential to tackle social justice issues. Both Councils and community groups need to recognise that the most disadvantaged and least resilient in society will be disproportionately affected by the crises and action is needed to help these communities adapt to the changes.

The way in which we **work** is one of the biggest contributors to energy consumption. In moving to a way of life that is sustainable, many occupations may no longer be required but many new ones will also be created. We may not need to work as many hours. We may not need to travel to work as often or at all. How we manage our environmental impact at work, and what this means for our wider social well-being, needs to be opened up for discussion as these changes could fundamentally alter our working lives, creating numerous social justice considerations.

Policies

The nature and scale of changes needed will require central government support. Comprehensive legislation such as the **Green New Deal, Climate and Ecological Emergency Bill** and the **Local Energy Bill** is required to deal with the crises we face.

Public bodies and businesses need to integrate the climate and ecological crisis across their policy frameworks, so that decisions are consistent with tackling the crisis. Action on the environment will only be effective if all areas, especially transport, housing, planning and procurement, are guided by the same principles. We encourage all organisations to declare a 'climate emergency' and consider how their operations and policies need to be adapted to address the crisis.

Conclusion

While we acknowledge the limitations of the Council's finances and spheres of influence, in most areas there was evidence of where both could be taking a leading role in addressing issues but are not yet. Encouragingly many of the solutions required are already in their CEE plans but disappointingly few of these have yet to result in any action. Both Councils need to **act like this is the emergency they have declared**.

The climate and ecological crises we face can seem overwhelming, creating a sense that individuals can do little to solve it. Throughout this report our aim has been to clearly set out why this is a real emergency while also highlighting that we already have the necessary solutions and, by sharing more than 120 positive case studies from across the county, demonstrate how many of these are already being deployed. We now need to scale these at pace to avert the worst of the crisis.

We have also shown how by abandoning business-as-usual and building a new way of doing things we can create a healthier, happier and more inclusive society for all; centred around a circular, green economy with well-paid, skilled jobs. We hope our vision statements provide an idea of what this might look like and invite everyone to join the conversation to enhance these and bring them to life.

We hope the report inspires everyone to do something, no matter how small and insignificant it may seem; we hope many will join us on this journey by taking collective action with others in your community.

We'll continue to monitor progress and collate positive stories and look forward to continuing the conversation and championing a vision for Dorset 2030.