

Glasgow Centre for Population Health
Response to Glasgow City Council's climate emergency consultation 2019
May 2019

1. What more, if anything, do you think the Council and the city should do to prevent major climate change?

Introduction

GCPH welcome this opportunity to comment on how Glasgow City Council should respond to climate change. We recognise the growing threat of climate change to population health and we understand the urgent need to respond through both mitigation and adaptation.

Climate change is the biggest threat to human health that we have known in recent centuries. This makes climate change a public health priority. Although there has been strong scientific evidence of accelerating climate change for several decades, action at the required scale is only beginning to be considered by public bodies. This means that the actions we take must happen quickly and extensively if we are to avoid the looming 'tipping point' after which major climate change is expected to be irreversible.

The relationship between climate change and inequality is worth noting. The most vulnerable people in our population – in particular the old, the very young, and people living in poverty – are likely to be the most at risk from the direct impacts of climate change such as extreme weather events e.g. storms, flooding, etc. In addition, these population groups are likely to have contributed the least to carbon emissions.

We commend the City Council for declaring a 'climate emergency' and support its leadership on this agenda. We hope and encourage other public and private bodies in Glasgow to follow this lead and to recognise the benefits that pursuing a sustainable, carbon neutral agenda can bring: from a public health perspective, effective action to address climate change can and should also contribute to progress on other public health priorities such as improving air quality, increasing physical activity, improving our diets, increasing local high quality greenspace and building strong communities.

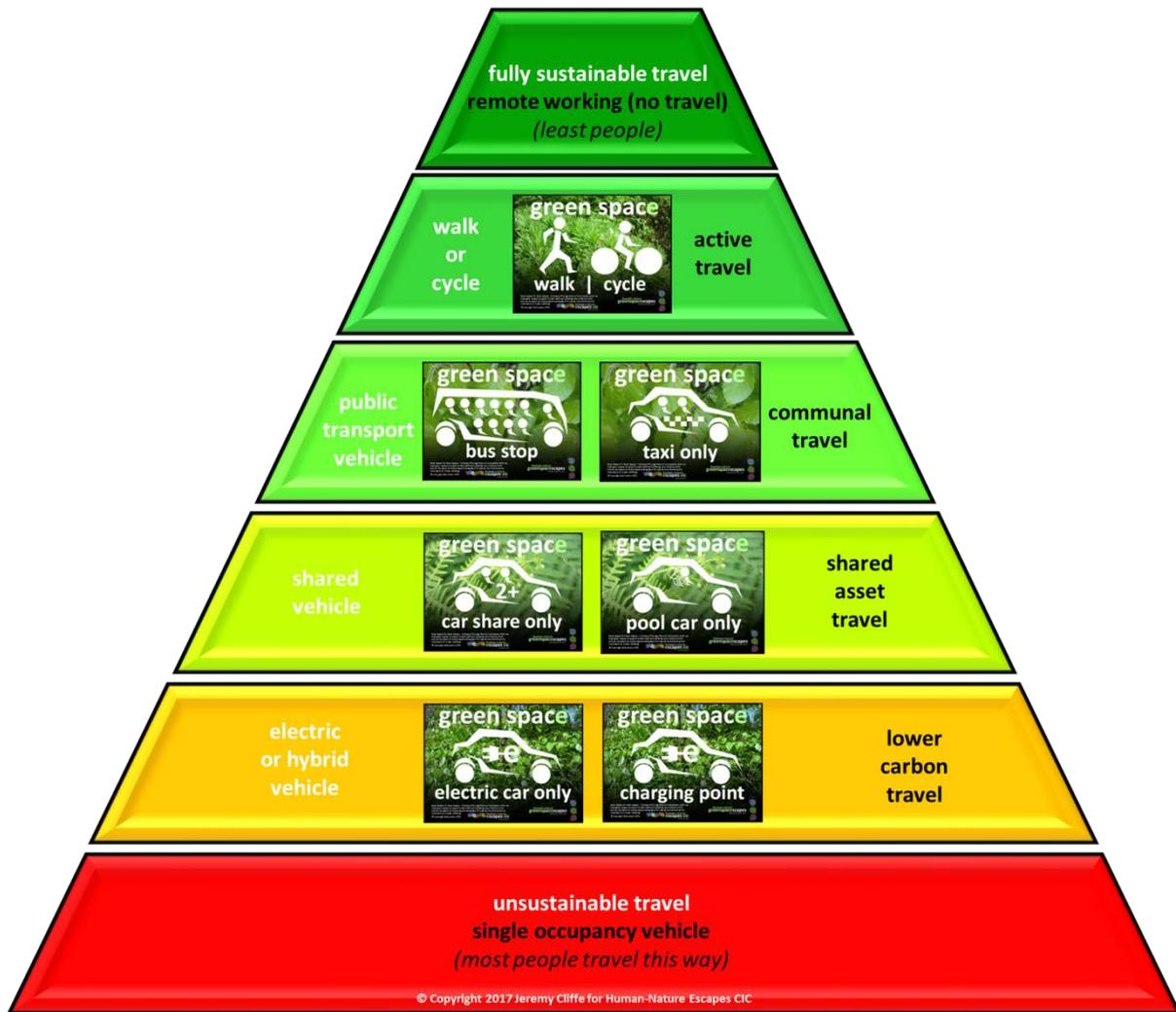
In considering how the Council prevents major climate change, we feel it is important to make the distinction between actions that are within the Council's direct control and those that are intended to support or encourage sustainable actions from residents. In terms of direct control, major changes could be implemented to shape: employee behaviour; actions as a landlord or landowner; how food, services and contracts are procured; and, where resources are allocated. Other actions can influence the choices and behaviours of residents. For example, in relation to travel, changes to road layout and design, speed restrictions and the provision of cycling and walking infrastructure can all help support a shift away from car use to more sustainable active travel. Similarly, planning regulations which support sustainable development, making recycling easier for residents and campaigns to change behaviour all have their place. To understand potential impacts – and to therefore identify suitable actions – we recommend that a climate change audit is undertaken to assess all Council activities. Where the City Council has more direct control, we believe that it should

be leading by example by minimising carbon emissions and environmental impact wherever possible.

To help with identifying the range of such actions that the Council should consider we have used a number of broad categorisations: 'transport'; 'food'; 'energy use'; 'planning'; 'waste'; 'urban greening and sustainable urban drainage systems (SUDS)'; 'finance and procurement'; and 'strategy and policy'.

a. Transport:

In terms of its own fleet of vehicles, the City Council should consider investing in more electric cars and other low-emission vehicles. We suggest researching the potential and feasibility of using pedal-powered gritters to clear cycle ways and public paths during cold weather. The Council might also consider reviewing its staff travel and expenses policies. For example, train journeys rather than flights should be the default option when traveling around the UK. The same principles should be applied to organisations that are funded/commissioned by the Council in order to promote and encourage more sustainable practice. Furthermore, flights paid for by GCC should only be undertaken when absolutely necessary with video conferencing and other virtual means used as an alternative. To inform the Council's approach to staff travel, the 'active travel hierarchy' should be considered – see image below. To be fully sustainable, working from home is the preferred choice. This should be considered in relation to other factors, but we that feel that sustainability should be a key consideration in determining staff travel/working practices.



Source: <http://human-nature.org.uk/green-spaces-green-spaces-sustainable-travel-project/human-nature-escapes-cic-sustainable-travel-hierarchy/>

The City Council should continue to actively promote and encourage more active transport, increased use of (cleaner) public transport and reduced reliance on private cars. A transport system built on the principles of sustainable travel and transport can help mitigate carbon emissions, reduce transport-related pollutants and support sustainable local economies. A supportive infrastructure and range of incentives can be catalysts for helping to make the shift to a more sustainable transport system that enables people to travel more actively (on foot, by pedalling or on public transport). There is also evidence that local transport systems and placemaking that prioritise walking and cycling can be attractive to residents and benefit local economies¹. The City Car club could also be expanded, promoted and incentivised to enable more people to access a car when required without having to own one.

Active travel infrastructure (principally, for walking and cycling) has the potential to provide a low carbon transport network and long-term population health benefits. However, scale and sustainability of investment is important. We would advocate sustained investment in infrastructure to transform levels of active and sustainable travel, and that this should be prioritised and co-ordinated alongside approaches to improve air quality, to reduce carbon emissions, to reduce related health inequalities and to improve liveability.

b. Food

The City Council provides food directly in a number of different ways: within staff restaurants and canteens; schools; museums; leisure centres; etc. The food system contributes between 20% and 30% of carbon emissions and most of this is from the production of meat and dairy produce, from non-seasonal produce being 'forced' out-of-season or being flown in from other parts of the world, and from the surplus food that becomes methane-producing waste in landfill. Food waste continues to be a major contributor to greenhouse gas emissions, contributing about 8% of the world's emissions. The City Council has the opportunity to adopt a much more sustainable approach to food provision, for example, by:

- incorporating a number of principles into menu planning and food procurement such as reducing the meat and dairy content of recipes and introducing more plant-based products and meals. One meat-free day per week could also be considered, as is already the case in a number of other cities (e.g. Gothenburg). This is supported by the EAT Lancet report that came out earlier this year: <https://www.thelancet.com/commissions/EAT>.
- using more locally-grown, seasonal produce (this would have the benefit of helping to build a stronger local food economy) and providing more support to develop local growing spaces and locally grown food.
- stopping the use of any air-freighted food products.
- using a range of approaches to reduce surplus food and food waste. For example, encourage pre-ordering of school meals so that children are more likely to get the meals they want irrespective of when they reach the front of the queue.
- increasing the composting of food waste and reducing the food waste going into landfill from GCC food providers. The food that is wasted and composted could also be used more effectively by opening more anaerobic digestion units that, in turn, can produce energy to power greenhouses to grow more locally produced vegetables. Case studies are available here: <http://adbioresources.org/library/case-studies>.
- discouraging use of single-use plastic containers, cutlery, cups, bottles and disposable coffee cups, and introducing a phased reduction.

c. Energy use

The Council should ensure that all buildings in the Council estate conserve energy whenever and wherever possible, for example, via adequate insulation, building maintenance and smart technology to reduce wasted energy. A further measure would be to ensure that all buildings in the Council estate use a sustainable energy provider. Finally, building renewable energy into new infrastructure – for example, solar panels and turbines – and retrofitting this type of technology where practical in existing buildings, are advised.

d. Planning

Planning plays an important role in shaping the individual and collective behaviour of residents. From the perspective of climate change, this can include travel behaviour, energy use, food choices and general consumption patterns. Current planning policy supports a placemaking approach to planning. Placemaking is a recognised and endorsed approach to development in Scotland, defined in Scottish Planning Policy as a creative and collaborative process that includes the design, development, renewal or regeneration of the built environment. In light of potential for climate change to be tackled through placemaking approaches, there is a strong case for planning policy to include specific policy relating to climate change mitigation and adaptation. Further to this, there is

scope for the Place Standard tool to be adapted to include a more specific focus on climate change: <https://www.placestandard.scot/>.

We would like to see the Community Planning Partnership have environmental and social sustainability as a core component of the Community Plan, with all partners committing to the development of their own plans for carbon reduction. The CPP should publish an annual progress report that details the progress that all Community Planning Partners are making on their sustainability/carbon reduction plans.

The Council should also incorporate social and environmental sustainability, with detailed carbon reduction plans, into the local economic strategy.

Council and Community Planning Partners should all seek to embed the principles of climate change mitigation and low carbon procurement into their own plans and processes.

Given current climate change forecasts and the enhanced Scottish Government targets for reducing carbon emissions, much tighter criteria on carbon emissions (and air pollution) will need to be developed with respect to any major new development (e.g. a new road, housing or building development).

e. Waste

It is essential that the amount of organic matter going into landfill is reduced. The introduction of food waste collections across the city is welcome but must be extended beyond residential homes if there is to be a dramatic reduction in food in general waste. Consideration should be given to opening more anaerobic digestion units that, in turn, can produce fuel to power greenhouses to grow more locally produced vegetables.

The re-introduction of water fountains across the City is welcome and should continue to be rolled out.

f. Urban greening and SUDS

Urban greening is a cost-effective way of moderating climates at a local level. Trees and vegetation have a natural cooling effect as they provide shade. In addition, evapotranspiration from vegetation consumes a significant proportion of the available heat energy in the atmosphere. Green infrastructure can also help to prevent flooding. A combination of living roofs, large trees and soft landscaping can absorb heavy rainfall, store and recycle it for summer irrigation. A shift is needed in public spending from grey projects, like road building and heavy engineering projects, to green schemes like street trees, parks, green roofs and waterways. Greenery in urban areas can also provide a co-benefit of helping to absorb air pollutants.

Green infrastructure provides areas where natural processes such as evapotranspiration and runoff interception can occur. However, ecosystem services provided by green infrastructure are often overlooked and undervalued. Instead, harmful processes such as tree felling to reduce hazards near roads, development of infill in gardens and the redevelopment of biodiverse 'urban wastelands' degrade the ability of the city to regulate temperature and provide other valuable services to inhabitants.

Sustainable urban drainage systems (SUDS) provide areas within the built environment where the natural processes of rainwater interception, storage and infiltration can take place, offering a more

sustainable approach to the management of urban storm water runoff than impermeable surfaces, conventional underground pipe and storage-based solutions. However, SUDS also have wider environmental benefits, including an impact on microclimates in urban areas.

The removal of vegetation and increase in hard impervious surfaces rapidly removes water from the immediate environment, preventing cooling by evaporation. Dark materials absorb solar radiation and urban street canyons prevent the heat escaping. SUDS can replace some of the evaporative cooling lost through urbanisation and can provide climate change adaptation and mitigation against 'urban heat island' (UHI) effects.

h. Finance and procurement

Public sector procurement practice has an important role in shaping climate change. An important aspect of any internal audit would be to assess how procurement takes place and what changes are needed for more sustainable practice. This could include commissioning local businesses and prioritising local products, as well as ensuring that food is locally sourced.

i. Strategy and policy

We would like to see climate change embedded within all Council strategies and policies. While there is a strong emphasis on sustainability in many Council strategies, a more explicit focus on carbon reduction, reduced waste and climate adaptation is welcomed. A focus on climate justice should also be included, given the Council's commitment to reducing inequality. This is not intended to add further work, but instead we would hope that it would become embedded in Council practice over time.

2. What more, if anything, do you think the Council and the city should do to prepare for the impacts of a changing climate?

A changing climate presents a number of direct and indirect threats to public health, some of which are already impacting on people in the UK. Direct threats include flooding, heat stress, drought and an increased frequency of extreme weather events, while indirect threats include reduced air quality, vector-borne disease, food insecurity and displacement. Rising temperatures, meanwhile, and the associated heat-related impacts resulting from increased injury, worsening respiratory conditions and even increased mortality, may be compounded by demographic shifts towards a more elderly population. Although warmer winters are likely to result in fewer excess deaths, this reduction is not predicted to offset the increased risk to mortality posed by heat. Projected climate trends for the West of Scotland include:

- Average temperature will increase in all seasons, with the greatest increases in summer.
- Heatwaves and extremely hot summers will occur more frequently in the future.
- Rainfall is projected to become more seasonal, with an increase in average winter and autumn rainfall.
- Average summer rainfall may decrease.

- Heavy rainfall events may occur with more frequency in winter, spring and autumn.
- Winter storms with extreme rainfall may become more frequent.
- Sea level will rise.

We welcome the Council's proposals to mitigate the impact of major climate change but recognise that some level of climate change is now inevitable: indeed, we are increasingly seeing unpredictable weather here and across the world. In order to prepare adequately we suggest the following:

a. Transport

Infrastructure should be built to withstand extremes of heat and cold and with adequate drainage to deal with flash flooding. Waiting areas for passengers should be covered to protect from sun/rain. To support active travel, the Council's winter maintenance plan should include clearing and gritting pavements, paths and cycle ways of snow and ice and this should be given equal priority to roads.

b. Food

It is very likely that global food production will become more unpredictable due to changing weather patterns. Droughts and floods will affect harvests across the world and supply chains and food prices will be affected. By sourcing more food locally, and in season, some of these challenges will be reduced while, at the same time, providing support for a stronger local food economy that provides local employment.

c. Energy use

Where possible, the Council should support initiatives that support people living in fuel poverty, such as G Heat: <https://www.g-heat.org.uk/>. Continuing to support this partnership initiative would help to alleviate poverty and reduce energy use.

d. Planning

Climate change (both mitigation and adaptation) needs to be at the forefront of infrastructure planning. New and existing infrastructure needs to be resilient to likely climate change impacts e.g. higher temperatures, higher rainfall/flood risk, etc. Consideration should be given to adopting a presumption that new infrastructure will be carbon neutral i.e. will not make a net contribution to climate change emissions. In addition, existing buildings should be protected from the adverse effects of climate change. The Council should, where possible, make reasonable efforts to protect existing infrastructure from the adverse impacts of climate change. In particular, tenemental housing in parts of the city that are vulnerable to the effects of wetter weather should be upgraded.

In addition, embedding learning on community resilience to climate change within Community Planning should be a priority, drawing on the example of the Weathering Change project in the north of the city: https://www.gcph.co.uk/publications/762_weathering_change.

f. Urban greening and SUDs

Effective adaptation encourages better use of resources, can save money and can deliver wider health benefits too. For instance developing green spaces and infrastructure to help prevent overheating can help prevent flooding, save energy and promote biodiversity. It can also encourage people to go outdoors, be more active and promote mental wellbeing.

One study of adaptation activities such as installing green roofs and increasing urban vegetation found that residents within a two-block radius of the intervention had improvements in mental health, increased sense of community, and an overall expansion of social capital (Ebi *et al.*, 2008).

GCC should encourage innovative SUDs development such as that installed in the Commonwealth Games village. This type of development not only provides a solution for surface water drainage, but also a green corridor and a movement network.

3. What action and or policies, if any, should the Council and the city introduce specifically to reduce carbon dioxide and other greenhouse gas emissions?

Staff at the GCPH met to collectively agree on what policies we feel could make an important contribution to reducing carbon dioxide and greenhouse gas emissions. Specific policy suggestions are listed below:

a. Transport

- Increase funding for active travel infrastructure.
- Adopt a default 20mph limit across the city, in line with the Safer Streets Bill. (This will not only help to reduce casualties but will help embed a slower road speed environment which will encourage more people to walk and cycle.)
- Support investment in a higher quality, cleaner and more affordable public transport system (to encourage the shift away from car use).
- Enact a workplace parking levy (to reduce car use and encourage shift to other more sustainable modes).

b. Food

- Prioritise local food procurement.
- Consider reducing the amount of dairy and meat in food provided.
- Use locally grown, seasonal produce.
- Support local growing.

c. Energy use

- Reduce energy use
- Shift to low-carbon, clean energy.

d. Planning

- Ensure that planning decisions do not add pressure to existing drainage systems and do not put people at flood risk.
- Embed explicit climate change considerations within planning policy.
- Embed climate change considerations within the Place Standard.
- Ensure that new developments incorporate design which supports active travel.

e. Waste

- Reduce use of single-use plastic (internally) and encourage reduction by organisations and citizens.
- Encourage residential and community composting.

f. Urban greening and SUDs

- Continue to invest in green infrastructure.
- Support the temporary greening of vacant and derelict land where development is not a short-term solution.
- Incorporate SUDs and permeable surfaces into new developments.

h. Finance and procurement

- Review investment policy and remove investment in unsustainable industries/businesses.
- Incorporate a specific responsibility within procurement policy to reduce carbon emissions.

i. Strategy and policy

- Have an explicit focus on climate change in the Council Strategic Plan, highlighting specifically how climate change will be addressed.
- Ensure that climate change is a material consideration in the development of any new policy or strategy.
- Conduct an internal carbon audit and set targets for organisational improvement.

4. What are the barriers, if any, to the Council and the city taking action on climate change?

Overall, we feel that the main barrier to taking real action on climate change is partial commitment. In dealing with the climate emergency, it will not be enough to make a variety of small scale changes. David Pencheon recently gave a lecture as part of the Glasgow Centre for Population Health's seminar series in which he spoke of the need for 'transformational change' in relation to action on climate change – the lecture and presentation slides are available

here <https://www.gcph.co.uk/events/197>. This applies across all of the domains we have discussed in this consultation response.

The City Council is both an employer and an influencer and can therefore make transformation possible both directly and indirectly. We would encourage that the Council leads the way for Glasgow in this regard.

We believe that the barriers to change lie not in changing attitudes to climate change, but instead in changing established behaviours. This is reflected in findings in the Scottish Household Survey, whereby the percentage of the population who feel that climate change is an urgent problem has increased since 2013. It is also worth noting that people in the most deprived 20% of the population were less likely to feel it is an immediate issue, and although the percentage is increasing for both groups, the gap is widening². In addition, most people know what actions they need to take. A key role for the Council, therefore, is to ensure that the population are better able to make choices in their daily lives that are sustainable. This will be more likely if people are able to reach amenities easily, can recycle, good quality local food options are available, and people live in energy efficient homes. A key barrier, we feel, is the use of the private car. Reducing car reliance should not come only through parking restrictions and other barriers to use, but these measures should coincide with improvements in public transport and better conditions for walking and cycling.

5. Are you aware of actions that other places have taken on the issue of climate change which Glasgow can learn from?

There are several websites (some of which are listed below) that provide case studies exemplifying good practice regarding climate change actions.

The Committee on Climate Change Adaptation Subcommittee commissioned Aecon and Sniffer to collect case studies to explore the characteristics of successful actions or projects that could potentially be transferable. The report is based on 25 case studies across the Glasgow City Region, Greater London, Greater Manchester, Leicester and Newcastle upon Tyne.

<https://www.theccc.org.uk/wp-content/uploads/2018/11/Adaptation-actions-in-cities-what-works-final.pdf>

'Climate Just' showcases case studies throughout England that have endeavoured to address socially vulnerable groups who are sensitive to climate change. The website can be searched by category (e.g. academic research, local authority, etc.), region or theme (relating to climate change impact or vulnerable groups).

<https://www.climatejust.org.uk/case-studies>

The European Climate Adaptation Platform (Climate Adapt), supported by the Covenant of Mayors for Climate and Energy Europe, have developed an online Urban Adaptation Support Tool to provide guidance and resources to cities in developing and implementing an adaptation strategy. The tool includes case studies of cities and towns that have successfully implemented adaptation actions. The case studies can be searched by climate change impact and sector.

<https://climate-adapt.eea.europa.eu/knowledge/tools/urban-ast/step-3-2>

The United States Environmental Protection Agency have collected case studies of climate change adaptation from across the United States, which are available in a searchable online database.

Searchable domains include area of interest, level of government and region. Searches can also be made using key words.

<https://www.epa.gov/arc-x/searchable-case-studies-climate-change-adaptation>

6. In your opinion what help, if any, should the council ask both the Scottish and UK government for in order to address climate change?

With international scientific consensus of the destructive impacts of global warming on our planet and the Scottish Government's recognition that we are in a global climate emergency³, there is clearly growing recognition of the pressing need for action to adapt and mitigate in relation to global warming, locally, nationally and internationally. National leadership, at a UK and Scottish level, is needed and at a practical level investment to shift the way our economy and society provides services and consumes resources.

In terms of **transport**, the Council should be seeking resources from the national governments to shift to a more sustainable transport system. This will include investment to: create cleaner, low carbon public transport services; to build the active travel infrastructure we need across the city; and, to create an integrated sustainable transport system. In relation to **food**, investment will be needed to support more local food procurement and production and to shift away from carbon intensive agriculture. Other areas such as **energy use, waste processing** and **urban greening** mentioned earlier within this response, may well also need extra resources.

In summary, making this change to a low carbon economy and society will require concerted leadership, policy and investment at all levels of government.

7. The council is keen to involve local residents in discussions about tackling climate change. What would be the best method(s) to allow residents to contribute?

- Public meetings/workshops
- Online consultations
- Social media
- Community councils
- Community groups/organisations
- Other, please specify

It is our opinion that – based on our community engagement work and research evidence on this subject – as broad a range of engagement methods as possible should be used when seeking to involve local people in discussions, to capture a diverse a population. Those who are willing and able to take the time to make a particular effort to engage are likely to be one section of the population already engaged with the issue. Other people (the 'seldom heard voices') may need some support to get involved. Engaging with local residents will mean going to where people are – this may involve

looking for existing groups, community organisations, or other natural ‘bumping spaces’ where people are coming together.

The learning from the Glasgow Centre for Population Health’s ‘Weathering Change’ project in relation to engagement was:

- Using a conversational approach was useful at encouraging people to talk about what was important to them. At times it could be difficult to steer the conversation towards, or keep the conversation related to, the subject of climate change. However, people were eager to talk about what had changed and what needed to happen to improve the area.
- Having props and materials was effective at engaging people at specific community events, rather than on-street engagement where people were generally more sceptical and reluctant to participate.
- People were more likely to approach researchers when an activity was taking place (e.g. setting up) than when a pro-active approach was taken to consultation.
- The approach was most effective at engaging older people who had lived in the area most of their life. Working-age people were more difficult to engage with and were more sceptical of the researchers’ intentions.

8. How can we make sure that action on climate issues supports human rights and equality in the city?

A range of socioeconomic factors can shape people’s experience of climatic events, including income, housing tenure, affordability of property insurance and how well connected they are to protective or supportive services. This means that climate change can intensify existing problems for vulnerable people, bringing the potential for certain health inequalities to increase⁴. Climate justice can be considered in terms of climate impacts, capacity to adapt, contribution to climate change and access to climate related decision-making⁵. Generally the most vulnerable populations and those with the fewest resources contribute the least to CO₂ emissions and are most at risk from the negative impacts of climate change.

When putting in place new approaches, it will be crucial that the Council ensure they do not increase inequalities. It is very likely that there will be mass global migration as some parts of the world become uninhabitable due to climate change. Glasgow may need to accommodate more migrants in the future as a result and should start to plan for this now.

Climate justice is an important and growing aspect of our work given the additional burden that climate change will bring to poverty, inequality and vulnerable population groups. Adaptation opportunities (e.g. SUDS, planting and other nature-based solutions) can be developed on vacant

land, which tends to most concentrated in the most deprived urban areas. We would therefore like to see an emphasis on promoting nature-based adaptation solutions in these areas. Overall we would like climate change to be considered from a climate justice perspective and for the Council to be demonstrating how it will address this.

9. The Council has currently set a target year of 2037 for the city to achieve carbon neutrality. How do you think we might be able to deliver that by an earlier year?

It would be helpful to have the Council's definition of 'carbon neutrality' laid out. We would like to see that the definition used includes the carbon emissions resulting from the manufacture and transit of purchased goods and services as well as emissions made more directly by the City Council to ensure that any reduction is real and not simply a result of shifting emissions offshore.

To assist with monitoring, marketing and public scrutiny of the Council's progress towards carbon neutrality we would like to see annual public reporting from the Council which includes detailed breakdowns of the carbon emissions relating to different parts of the Council and its services, and an assessment of how this relates to planned reductions.

We would like to see real carbon neutrality in Glasgow being reached earlier than 2037 given the imperative that carbon neutrality needs to be achieved as soon as possible to avoid irreversible climate change and increasingly bleak scientific assessments of current progress – "global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate"⁶. However, we recognise that this will be extremely challenging and will require strong and focused political leadership, concerted action from the Council along with public understanding, support and significant behaviour change. However, we support an ambitious approach. We would like to see the Council take a strong leadership position, mobilising wide political and popular support for climate change adaptations and taking clear, consistent policy decisions aimed at achieving carbon neutrality.

10. Do you have any further comments on the climate emergency?

It will be important to evaluate new policies and actions to reduce carbon emissions and adapt to climate change in order to understand their effectiveness, to pick up on unexpected consequences and to be able to adapt approaches where necessary.

References

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- ³ Scottish Government. The Global Climate Emergency - Scotland's Response: Climate Change Secretary Roseanna Cunningham's statement. May 2019. Available at: <https://www.gov.scot/publications/global-climate-emergency-scotlands-response-climate-change-secretary-roseanna-cunninghams-statement/>
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- ⁶ IPCC. Special Report: Global Warming of 1.5°C. 2018. Available at: <https://www.ipcc.ch/sr15/>