### Item 6



**Glasgow City Council** 

8th August 2023

### Net Zero and Climate Progress Monitoring City Policy Committee

Report by George Gillespie, Executive Director of Neighbourhoods, Regeneration and Sustainability

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### **Purpose of Report:**

To provide Committee with an update on the Thriving Cities Initiative and the creation of the Thriving Glasgow City Portrait.

### Recommendations:

The Committee is asked to:

- 1) Note the contents of this report
- 2) Note the Thriving Glasgow City Portrait definitions
- 3) Note the next steps outlined to move the Thriving Glasgow City Portrait to action through the Thriving Cities Initiative
- 4) Refer the Thriving Glasgow City Portrait Definitions to the City Administration Committee for approval.

| Ward No(s):                         | Citywide: ✓           |
|-------------------------------------|-----------------------|
| Local member(s) advised: Yes ☐ No ☐ | consulted: Yes □ No □ |

#### 1 Introduction

- 1.1 During COP 26, the City of Glasgow made a political commitment to become a Thriving City. A thriving city is defined by the C40 as one which reduces overall levels of consumption and creates an economy where everyone is given an opportunity to thrive without harming other people or the planet (<a href="www.c40.org">www.c40.org</a>).
- 1.2 To progress this work, Glasgow committed to working with <u>C40</u>, who are a global network of mayors from the world's leading cities that are united in action to address the climate crisis.
- 1.3 C40's mission is focused on tackling climate change through urban action that reduces greenhouse gas emissions and climate risks, while increasing the health, wellbeing and economic opportunities of urban citizens. 55% of the world's population live in cities, which account for over 60% of global energy use, and more than 70% of global greenhouse gas emissions, in large part due to the global footprint of the products they import and consume<sup>1</sup>. 75% of Europe's population currently live in cities and urban areas and this is expected to rise to 84% by 2050<sup>2</sup>.
- 1.4 The Thriving Cities Initiative (TCI) is a key programme of work led C40, to address these issues. TCI uses an iterative approach to support cities in addressing unsustainable consumption to help achieve the targets of the Paris Agreement and improve equity, quality of life and economic livelihoods in cities.
- 1.5 Glasgow, through its hosting of COP26 and its work in addressing the climate and ecological emergency was invited to be part of this work.

### 2. Thriving Cities Initiative

- 2.1 The primary aims of a TCI city are to co-create solutions to inspire collective behaviour change to mainstream low carbon living and create jobs, improve wellbeing and equity.
- 2.2 The TCI project in Glasgow is led by the Council, however it requires collaboration across all sectors within the city to address the key issues. It is also acknowledged that TCI is an innovative model and one which identifies that the rate of change needed is beyond an incremental approach and requires a change in lifestyle choices and individual and collective behaviour.
- 2.3 It is recognised by C40 that the TCI in Glasgow needs to build on elements of existing work across the City, such as our <u>Circular Economy Routemap</u>, and <u>Glasgow's Food Plan</u>. It is also underpinned by the work led by the University of Glasgow on the development of the Thriving Glasgow City Portrait, as the first step towards becoming a thriving city (See section 3).

<sup>&</sup>lt;sup>1</sup> The Future of Urban Consumption in a 1.5°C World

https://knowledge4policy.ec.europa.eu/foresight/topic/continuing-urbanisation/developments-and-forecasts-on-continuing-urbanisation en#:~:text=Europe's%20level%20of%20urbanisation%20is,a%20smooth%20and%20constant%20increase

- 2.4 Glasgow's involvement in the TCI project was officially launched at COP26 and will run until August 2024. It has the following goals:
  - a) To develop an action pathway to move towards a thriving city. These actions will be based on the definitions which have evolved through the Thriving Glasgow City Portrait process. The action pathway will serve to enhance existing Council approved plans and frameworks, such as the Circular Economy Route Map. Any actions identified will be integrated into the city's overall Climate Action Plan.
  - b) To develop a methodology for measuring progress towards becoming a thriving city and addressing urban consumption, and pilot its use within a project based in Glasgow.
  - c) To develop communications tools and resources to mainstream sustainable lifestyles, focused on ensuring that Glaswegians have the necessary support to make decisions that will benefit them and their communities.
  - d) To share lessons learned from the Thriving Cities process demonstrating how cities can move towards thriving and address unsustainable consumption.
- 2.5 The timeline for delivery of these goals is outlined below in fig 1.

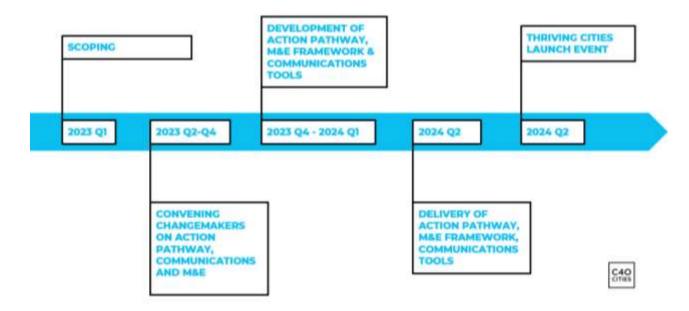


Fig 1.

- 2.6 Initial work on the TCI project has been completed and includes:
  - Commencement of the Thriving Glasgow City Portrait process
  - Glasgow City Council and C40 have agreed the project goals and outcomes.
  - Holding briefing sessions for internal and external stakeholders.
  - And convening 'changemakers' (including cross sector representation) in a workshop which focussed on measurement and evaluation for consumption

- and thriving. This workshop was a first step towards exploring more deeply the connection between thriving and consumption, and identifying existing measurement and evaluation as well as gaps and potential indicators.
- Finalisation of the Thriving Glasgow City Portrait process.
- 2.7 As outlined above, one of the underpinning pieces of work for the TCI in Glasgow has been the development of the Thriving Glasgow City Portrait, led by the Gallant<sup>3</sup> team at the University of Glasgow.

### 3 Thriving Glasgow City Portrait background

3.1 The Thriving Glasgow City Portrait presents a vision for the future of Glasgow. It is a vision of a city where the people and environment of Glasgow mutually thrive, and do so in ways that also benefit people, the biosphere, and climate on a global scale. To build this picture of a thriving future, the Portrait downscales the principles and framework of <a href="Doughnut Economics">Doughnut Economics</a> – a conceptual framework which aims to answer,

'how can we meet the needs of all people while maintaining ecological and climatic processes within bounds that are consistent with those needs?'

- 3.2 The work on the Portrait was led, and funded initially through strategic investment, by the University of Glasgow and began in the months following Glasgow's hosting of COP26 in November 2021. Since then, the University of Glasgow with support from Glasgow City Council have been successful in securing £10.2 million of grant funding through <a href="UKRI NERC">UKRI NERC</a>. This 5 year funded research programme is called GALLANT (Glasgow as a Living Lab Accelerating Novel Transformation). GALLANT aims to deliver the social priorities of the UN Sustainable Development Goals while remaining within the planetary boundaries of a 1.5°C world using Doughnut Economics as a framework. Further development of the Portrait has been led by Gallant.
- 3.3 The Portrait's vision of a Thriving Glasgow has been co-created with many different changemakers across the City. The process of creating this Portrait, and engaging a large group of city actors, has been undertaken with a view to support the collective city response to Glasgow's COP26 legacy.
- 3.4 The Portrait will act as an evidence base and starting point (baseline) for the goals and work strands of the Thriving Cities Initiative in Glasgow; the starting point for a series of more detailed, action-focused workshops and engagement events.

<sup>&</sup>lt;sup>3</sup> Gallant (Glasgow as a Living Lab Accelerating Novel Transformation) https://www.gla.ac.uk/research/az/sustainablesolutions/ourprojects/gallant/

#### 4 The Portrait Process

- 4.1 The Portrait is organised across 44 prescribed social and ecological dimensions, across four separate lenses:
  - a local-social lens considering what Glasgow citizens need for thriving,
  - a local-ecological lens on protecting and nurturing Glasgow's natural environment,
  - a global-social lens considering Glasgow's impact on people globally and
  - a global-ecological lens considering Glasgow's impact on planetary health

Fig1. Below is a visual representation of the Doughnut Economics framework.



Fig 1. Doughnut Economics Model (https://en.wikipedia.org/wiki/Doughnut\_%28economic\_model%29)

- 4.2 The creation of the Portrait and the detail of the 44 dimensions of the four lenses has been based on 2 main phases of work:
  - A desk-based review by the research team of city policies, strategies, and publicly available statistics (as of April 2022) to create an initial picture of Glasgow. This included considering different targets for each of the lenses. Existing targets were then compared to publicly available statistics to provide a sense of where Glasgow's current strengths might lie, as well as to show some of the biggest challenges. This desk-based work was also valuable in

identifying some of Glasgow's many groups, individuals, and organisations who are working towards the goals of becoming a Thriving City.

- A series of 5 workshops with over 130 changemakers from multiple sectors
  to incorporate the diverse perspectives of participants into the creation of the
  Portrait. These took place between April 2022 and February 2023.
  Participants included Glasgow City Council officers, GALLANT researchers,
  community members from a public university festival, Glasgow City Council
  Elected Members, and a broad range of changemakers from the public,
  private and third sectors with a stake in either, or both, social and ecological
  concerns.
- 4.3 For each of the 44 dimensions, this process has resulted in:
  - The creation of a definition of what 'thriving' would mean in a Glasgow context
  - Examples of what this could look like, and the enabling factors
  - An existing 'snapshot' indicator aligned to an existing GCC or SG goal where available, to provide a 2022 baseline
  - Potential indicators that can be used for ongoing monitoring for consideration by GCC
- 4.4 The thriving definitions that make up the Thriving Glasgow City Portrait are formed by amalgamating and summarising the different responses gathered through the process. As the full Portrait comprises 44 dimensions, it presents a broad, holistic, aspirational view of how Glasgow could look in the future, informed by perspectives from across the wider city system. These definitions can be found within Appendix 1. It is necessary to have these definitions agreed by Glasgow City Council to allow for the City Portrait to be completed.

### 5 Thriving Glasgow City Portrait Outputs and Next Steps

- 5.1 The insights of the Thriving Glasgow City Portrait, when viewed together, offer a vision for Glasgow's future. The Portrait also offers an insight into what a 'thriving' city may look like in any given part of the system, as well as highlighting the key links and connections between different yet connected parts of a thriving city. For example, it highlights the connections between transforming local food systems, the health of Glaswegians, and the sustainability of global land and water resources.
- 5.2 The Thriving Glasgow City Portrait also highlights that there is an abundance of existing work going on across the city that supports the ambition to become a Thriving City, and that there is a great deal of synergy and crossover between groups, departments, and organisations. This Portrait framework and the ongoing Thriving Cities Initiative offer a point of connection to bring together disparate actors and frame their activities around a common goal.
- 5.3 The information in the Thriving Glasgow City Portrait is not exhaustive, but shows areas of connection that might encourage changemakers to think more broadly and holistically about the repercussions and interconnections between

their mutual goals. It is designed to inform a systems approach that will lead to an iterative process of 'learning by doing', as we design and implement actions, and evaluate their impact in an evolving cycle of improvement.

- 5.4 The Thriving Glasgow City Portrait provides a framework for acting on social and ecological priorities in tandem, as well as a consistent focus on reducing inequalities in line with a Just Transition.
- 5.5 The responsibility for delivering the TCI project sits with Glasgow City Council, however, the input of colleagues at University of Glasgow will be critical in successful delivery and this project will continue to be delivered in cooperation between the two organisations.
- 5.6 The next steps outlined below will support Glasgow to make significant progress on the commitment to becoming a Thriving City:
  - Finalise the outputs of the Thriving Glasgow City Portrait which include:
    - A full report (to be published online)
    - A digital version allowing interactive exploration of the 44 dimensions of the Portrait and key interconnections
    - A slide deck and recorded presentation to introduce the Portrait and how it can be used to stakeholders
    - A short introductory video (3 ½ minutes)
  - Continuing to embed the Thriving Glasgow City Portrait definitions within the TCI project to hold further changemaker discussions and translate the vision into action on the ground.
  - Utilise the TCI support and C40 network to learn from other leading cities on how they are making progress towards becoming a Thriving City.
  - Continue to develop links between the research opportunities presented by Gallant and the actions required to move Glasgow towards becoming a Thriving City.

### 6. Policy and Resource Implications

### **Resource Implications:**

Financial: There are no direct financial implications

arising from the report

Legal: There are no direct legal implications arising

from the report

Personnel: GCC Sustainability and a wide range of

internal colleagues will continue to have

involvement in the project delivery.

Procurement: There are no direct procurement implications

arising from the report

Council Strategic Plan: Contributes to Grand Challenges 1,2 and 3.

- Reduce poverty and inequality in our communities; Mission 3, Improve the health and wellbeing of our local communities.
- Increase opportunity and prosperity for all our citizens; Mission 1, Support Glasgow Residents into sustainable and fair work. Mission 2, Support the growth of an innovative, resilient and net zero carbon economy.
- Fight the climate emergency in a just transition to a net zero Glasgow;
   Mission 2, Become and net zero carbon city by 2030.

### **Equality and Socio- Economic Impacts:**

Does the proposal support the Council's Equality Outcomes 2021-25? Please specify.

It supports the outcomes indirectly through consideration of a Just Transition where people are at the heart of a Thriving City.

What are the potential equality impacts as a result of this report?

This work has potential to have a positive impact on all equality outcomes. A consideration of a Just transition for the people of Glasgow underpins this work. Positive impacts may range from a wider diversity of sustainable employment opportunities accessible to all, through to improved environments where health and wellbeing benefit.

Please highlight if the policy/proposal will help address socioeconomic disadvantage.

Not directly. However through the ongoing action towards becoming a Thriving City it is hoped that socio-economic disadvantage would reduce.

### **Climate Impacts:**

Does the proposal support any Climate Plan actions? Please specify:

The project supports the following Climate Plan actions directly - 4, Climate literacy; 6, Net Zero City plan; 11 Just Transition and 59, Circular Economy

climate impacts as a result of this proposal?

What are the potential Becoming a thriving city means there would be a reduction in overall levels of consumption and an economy is created where everyone is given an opportunity to thrive without harming other people or the planet

Will the proposal contribute to Glasgow's net zero carbon target?

Yes, by reducing overall levels of consumption there will be a reduction in emissions.

### **Privacy and Data Protection Impacts:**

Are there any potential Not applicable to this report. data protection impacts as a result of this report Y/N

If Yes, please confirm that N/A a Data Protection Impact Assessment (DPIA) has been carried out

#### 7 Recommendations

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- 1) Note the contents of this report
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### Appendix 1: Please do not use or cite until published by Gallant

## The Thriving Glasgow Portrait – The Thriving Glasgow Definitions

A shared vision for a healthy, equitable sustainable future

### A. How will the people of Glasgow thrive?

| FOOD SSS        | Everyone in Glasgow has affordable access to               |
|-----------------|--|
| -               | nourishing and sustainable food. There is no food          |
|                 | poverty, and no need for food banks.                       |
| What could      | Local community food growing and food sharing              |
| this look like? | initiatives are widespread, and healthy food options are   |
|                 | more accessible and affordable than ultra-processed        |
|                 | options.   |
| WATER           | Everyone's water requirements are met - clean, treated     |
| O               | water for drinking, cooking and hygiene is readily         |
|                 | available.   |
| What could      | Water resilience is improved by not over-using clean,      |
| this look like? | treated water (so needing fewer chemicals) for growing,    |
|                 | gardening, washing, cleaning etc.                          |
| HEALTH CO.      | All Glasgow citizens live long and healthy lives, and      |
| V               | health inequalities are small. Glasgow's environment       |
|                 | promotes physical health, enhances wellbeing, and          |
|                 | supports good mental health.                               |
| What could      | Everyone lives in a health-promoting environment, without  |
| this look like? | contaminated soil and polluted land posing a health        |
|                 | threat to residents, and with high quality green space to  |
|                 | enjoy, clean air, active travel routes and plentiful cycle |
|                 | storage to allow for physical activity.                    |
|                 | Glasgow no longer has disproportionate levels of excess    |
|                 | deaths from substance abuse or suicide.                    |

| EDUCATION        | A well-funded education system (schools, colleges,                          |
|------------------|---|
| Ф                | universities) gives equal access to all Glaswegians the                     |
|                  | foundation for life-long opportunity and fulfilment.                        |
|                  | Everyone is Glasgow is supported to realise their potential.                |
| What could       | All children are attending school and are able to benefit                   |
| this look like?  | from learning without the additional challenges of poverty, such as hunger. |
|                  | Education providers help Glaswegians to become good                         |
|                  | climate citizens through a curriculum that emphasises                       |
|                  | teaching the value of biodiversity and a healthy                            |
|                  | ecosystem for human prosperity. Education providers                         |
|                  | actively support healthy meals, low-carbon travel and                       |
|                  | physical activity.  |
| HOUSING          | Homes for all residents, in all tenures, are affordable,                    |
|                  | secure, energy efficient, and free from health hazards.                     |
| What could       | Glasgow's architectural heritage (tenements) is                             |
| this look like?  | celebrated, but also possible to modernise/retrofit.                        |
|                  | Glasgow builds and regenerates more beautiful, low-                         |
|                  | carbon social housing.  |
|                  | The interests of residents are prioritised over the profit of               |
|                  | landlords. There is widespread city support for national                    |
|                  | level housing reform that provides sustainable methods of                   |
|                  | tackling rising Private Rental Sector inflation.                            |
|                  | Housing services and social landlords provide additional                    |
|                  | co-benefits to communities e.g. green spaces, local food                    |
|                  | growing, community pantries.  |
| ENERGY           | All of Glasgow's energy needs are met from renewable                        |
| <del>.</del> ☆-  | sources. Everyone is able to afford their energy                            |
| What could       | requirements. Glasgow's energy consumption (direct and indirect) is         |
| this look like?  | much reduced overall, in particular by combining energy                     |
| triis look like: | efficiency measures with decarbonising heating, and                         |
|                  | reducing the consumption of high-consumption                                |
|                  | industries and individuals.   |
|                  | More renewable energy infrastructure is locally owned                       |
|                  | and managed within Glasgow and surrounding                                  |
|                  | communities, generating community wealth.                                   |
|                  |   |

| CONNECTIVITY                          | All citizens in Glasgow have access to fast, affordable  |
|---------------------------------------|--|
|                                       | broadband and are supported in accessing online  |
| _                                     | communication networks and the internet. There are no  |
| <b>૽</b>                              | digital inequalities by age, wealth or education status.   |
| What could                            | n/a – no further suggestions made in workshops   |
| this look like?                       |  |
| MOBILITY                              | It is easy, safe and affordable for Glaswegians and  |
| <b>⊘</b> ¹©                           | commuters to get around the city sustainably at all  |
|                                       | times of the day.  |
| What could                            | Glasgow's compact, liveable neighbourhoods with access   |
| this look like?                       | to key infrastructure and services are connected by a  |
|                                       | cheap, decarbonised, fully integrated public transport   |
|                                       | system that provides a regular service throughout the day  |
|                                       | and night. Glasgow is well connected to other cities and   |
|                                       | rural areas.   |
| COMMUNITY                             | Glasgow is a friendly and welcoming city. All  |
| $\wedge$                              | Glaswegians have opportunities to take an active role in   |
|                                       | their communities, supporting vital community  |
|                                       | connection and services.   |
| What could                            | There are widespread community sharing initiatives and   |
| this look like?                       | communal resources such as material exchange hubs  |
|                                       | and 'libraries of things', for tools, toys, and gardening  |
|                                       | equipment.  More popule have the ability take part in volunteering   |
|                                       | More people have the ability take part in volunteering.  There are plenty of community spaces available for use in |
|                                       | all seasons, and opportunities for local communities to  |
|                                       | act as stewards of these spaces.   |
| CULTURE                               | People in Glasgow enjoy a healthy 'work-life' balance  |
| COLTONE                               | with lots of opportunity for cultural, leisure and   |
| **                                    | wellbeing-promoting activities that are both affordable  |
| •                                     | and inclusive.   |
| What could                            | Our cultural assets such as museums and creative spaces  |
| this look like?                       | contribute to wider city ambitions, such as job creation.  |
| INCOME &                              | All Glaswegians have sufficient income from a  |
| WORK                                  | sustainable/fulfilling source. There is zero poverty in the  |
| \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | city.  |
| What could                            | Job growth areas are in sustainable industries such as   |
| this look like?                       | renewable energy, culture, and wellbeing services. Long-   |

term investment is made in the skills and training to support these good quality jobs. Glasgow invests in and supports (through tools such as procurement) alternative business models e.g. social enterprises and cooperatives. Glasgow residents are connected to high quality employment opportunities e.g. through accessible transport options and inclusive recruitment practices. All Glasgow citizens are valued equally, and all SOCIAL Glasgow's communities benefit from inclusive access to, **EQUITY** and representation in, city spaces and institutions. Dramatic improvement and investment in the fabric of What could this look like? historically poorer areas, improving access to and ownership of 'The Commons' across all communities. Glaswegians act as stewards of public resources for the benefit of future generations. VDL sites in deprived areas are regenerated to provide amenities (natural, cultural, social, economic) to those who most need them. Policy levers are employed to protect against gentrification. Patterns of intergenerational poverty are broken. Glasgow recognises and celebrates the diversity of its **EQUALITY IN** communities. All Glaswegians, regardless of **DIVERSITY** background or culture, have equal opportunities and access to everything Glasgow has to offer. What could The diversity of all Glasgow's neighbourhoods is this look like? celebrated and reflected in our decision-making and services e.g. through different languages. Services and city spaces are used equally by all groups in society ethnic diversity and gender equality - reflected for example in patterns of active travel. Glasgow takes an inclusive and proactive approach to POLITICAL VOICE policy and decision making. What could Our political processes are informed by more inclusive citizen participation and engagement, valuing all voices this look like? including quiet ones (of different ages and backgrounds too). Public spaces and tools such as citizens' assemblies

|                 | are used to encourage more community engagement,               |
|-----------------|--|
|                 | and our political leaders demonstrate that they can be         |
|                 | trusted.   |
| PEACE &         | Glasgow prioritises and resources residents' safety,           |
| JUSTICE TO      | peace, and protection.   |
| What could      | Neighbourhoods are safe and peaceful in all parts of the       |
| this look like? | city, all individuals feel protected, and trust that resources |
|                 | are available to keep them safe e.g. in parks and              |
|                 | greenspaces.   |

### B. How will the city thrive within its natural habitat?

| CLEANSE THE     | All Glasgow citizens breathe healthy and unpolluted air,    |
|-----------------|---|
| AIR             | and pollutants are well below maximum statutory             |
| ಾ               | guidelines for health.                                      |
| What could      | Glasgow has active travel infrastructure, Low Emission      |
| this look like? | Zones, urban trees and plants in public, private and        |
|                 | commercial spaces. Its emissions from construction,         |
|                 | transport and industry are minimised.                       |
|                 | Glasgow uses its policy levers to support widespread        |
|                 | capture of pollutants, at individual and industrial levels. |
| HOUSE           | Glasgow and its surroundings have abundant and              |
| BIODIVERSITY    | diverse local populations of native species.                |
| <b>8</b> 5      |   |
| What could      | Biodiversity protection and restoration is properly         |
| this look like? | resourced, and built in to all other planning priorities.   |
|                 | Crucial pollinators and worms are protected. There are      |
|                 | well-connected habitats and wildlife corridors.             |
|                 | City parks and waterways are managed holistically, to       |
|                 | join up wildlife habitats. Vacant and derelict land sites   |
|                 | can be assessed for biodiversity improvement. This may      |
|                 | include protecting some mature derelict sites that          |
|                 | support rare species or encourage returning biodiversity.   |
|                 | Adequate training opportunities are available to citizens   |
|                 | of all ages to improve skills in managing green spaces for  |
|                 | biodiversity. Rewilding is encouraged in the city,          |
|                 | maintenance teams do not cut back grass verges, and         |
|                 | several wildflower meadows are planted.                     |
| STORE           | Glasgow stores more carbon in its trees, soils,             |
| CARBON          | greenspaces, and waterways than it releases. It             |
| <u> </u>        | maintains and protects its natural carbon sinks.            |
| What could      | Heating, transport, and construction sectors are            |
| this look like? | decarbonised, through use of Nature-Based Solutions, the    |
|                 | use of net zero construction materials, and repurposing of  |
|                 | industrial infrastructure for carbon sequestration.         |
|                 | Glasgow supports the restoration of carbon sinks across     |
|                 | the wider region e.g., peatlands, seagrass.                 |

| CYCLE           | Glasgow recognises the value of clean water. It             |
|-----------------|---|
| WATER 0         | maximises opportunities for grey water recycling,           |
|                 | rainwater harvesting, and manages wastewater                |
|                 | sustainably. The rivers are free from pollution and         |
|                 | support healthy biodiversity.                               |
| What could      | Glasgow makes efficient use of untreated water (needing     |
| this look like? | fewer chemicals) for growing, gardening, washing, and       |
|                 | cleaning.   |
|                 | Green infrastructure, nature-based solutions, and           |
|                 | sustainable urban drainage systems are widely used.         |
|                 | Urban design practices embrace adaptation through rain      |
|                 | gardens, flood plains, more permeable surfaces (to          |
|                 | reduce pollutant run-off), and healthy river corridors that |
|                 | can also provide wildlife habitat.                          |
| HARVEST         | The Glasgow energy mix is harvested from renewable          |
| ENERGY          | sources to benefit Glasgow residents and businesses.        |
| - <u>;</u> ò;-  | Glasgow pursues renewable energy generation and             |
| *1*             | storage solutions.  |
| What could      | Glasgow maximises opportunities to use solar, wind,         |
| this look like? | water, and ground source heat for its energy, distributed   |
|                 | through local heat networks.                                |
|                 | More approvals are granted for solar power and low-         |
|                 | carbon energy infrastructure on publicly owned buildings.   |
|                 | All new buildings fitted with solar panels and zero carbon  |
|                 | heat sources.   |
|                 | Glasgow explores new methods of generating and storing      |
|                 | renewable energy e.g., kinetic energy, harvesting 'Park     |
|                 | Power' from parks and open spaces.                          |
| REGULATE THE    | Considered design of the natural and built environment      |
| TEMPERATURE     | in Glasgow creates a balance of green, grey, and blue       |
|                 | spaces that contribute to temperature regulation.           |
| What could      | More urban green spaces are created to achieve a better     |
| this look like? | balance between 'urban' and 'natural' spaces. Small         |
|                 | spaces are maximised for plants and trees e.g. pocket       |
|                 | l , , , ,   |

street parks.

| BUILD &              | Soil in Glasgow is healthy, nutrient-rich, and fertile,   |
|----------------------|---|
| PROTECT              | which supports healthy biodiversity, food growth, and   |
| SOIL                 | diverse green spaces.   |
| What could           | Impermeable hard surfaces are minimised and replaced  |
| this look like?      | with permeable surfaces. Spaces are provided to support   |
|                      | soil health through composting, regenerative agriculture, and hosting biodiversity.   |
|                      | Vacant and Derelict Land sites need to be   |
|                      | decontaminated and transformed in pursuit of soil health.   |
|                      | Sites of Special Scientific Interest (SSIs) need to be  |
|                      | conserved.  |
| ENHANCE              | Green and blue spaces across Glasgow are plentiful,   |
|                      |   |
| WELLBEING            | pleasant, accessible to all, and clean.   |
| WELLBEING            | pleasant, accessible to all, and clean.   |
| WELLBEING What could | pleasant, accessible to all, and clean.  Glasgow's open spaces are multi-purpose: they can be   |
| •                    |   |
| What could           | Glasgow's open spaces are multi-purpose: they can be  |
| What could           | Glasgow's open spaces are multi-purpose: they can be used for leisure and as 'green gyms'; as community venues; and to provide connection with nature. The local community are engaged in the upkeep and stewardship  |
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| What could           | Glasgow's open spaces are multi-purpose: they can be used for leisure and as 'green gyms'; as community venues; and to provide connection with nature. The local community are engaged in the upkeep and stewardship of green and blue spaces, and benefit from its results. Support is provided to build capacity for volunteering. Currently polluted, vacant or derelict green and blue sites  |
| What could           | Glasgow's open spaces are multi-purpose: they can be used for leisure and as 'green gyms'; as community venues; and to provide connection with nature. The local community are engaged in the upkeep and stewardship of green and blue spaces, and benefit from its results. Support is provided to build capacity for volunteering. Currently polluted, vacant or derelict green and blue sites (including potential swimming spots) are prioritised for |
| What could           | Glasgow's open spaces are multi-purpose: they can be used for leisure and as 'green gyms'; as community venues; and to provide connection with nature. The local community are engaged in the upkeep and stewardship of green and blue spaces, and benefit from its results. Support is provided to build capacity for volunteering. Currently polluted, vacant or derelict green and blue sites  |

### C. How will Glasgow safeguard the health of the planet?

| CLIMATE         | Glasgow has no net contribution to global greenhouse       |
|-----------------|--|
| CHANGE 💍        | gas emissions.   |
| What could      | Sectors most responsible for global warming are            |
| this look like? | decarbonised and Glasgow has minimised the emissions       |
|                 | embedded in its supply chains. Glasgow is not fed by       |
|                 | industrial farming methods, especially for livestock with  |
|                 | high Greenhouse Gas emissions, such as cows.               |
|                 | Consumption levels of the heaviest emitters are            |
|                 | curtailed, and specific sites responsible for very high    |
|                 | emissions are targeted e.g. Glasgow Airport.               |
|                 | Glaswegians eat primarily plant-based diets that create    |
|                 | fewer Greenhouse Gases. Buildings are retrofit to Net Zero |
|                 | standards such as Passivhaus, to reduce our energy         |
|                 | demand.  |
| OCEAN           | Glasgow contributes to protecting global oceans by         |
| ACIDIFICATION   | having no net contribution to greenhouse gas               |
| ×               | emissions.   |
|                 |  |
| What could      | The sectors emitting most CO2 in Glasgow in 2022 -         |
| this look like? | heating and transport - are fully decarbonised.            |
|                 | Demand for CO2 burning activities is reduced overall,      |
|                 | through investment in active and public transport,         |
|                 | insulation and retrofit of buildings, and green local      |
|                 | energy networks. Carbon Capture Storage is utilised on     |
|                 | Vacant and Derelict Land sites.                            |
| CHEMICAL        | Glasgow is committed to minimising its material            |
| POLLUTION       | footprint. Glasgow has a Circular Economy that             |
|                 | maximises re-use of resources, minimises its use of        |
|                 | harmful chemicals across sectors and supply chains,        |
|                 | and is a global leader in the remediation of polluted      |
|                 | urban environments.  |
| What could      | Glasgow's overall consumption is reduced, and the          |
| this look like? | dominant consumerist culture is challenged by re-using,    |
|                 | recycling, and repairing initiatives. Consumption of raw   |
|                 | materials is minimised. Procurement policies and           |

practices outlaw single-use products, pollutants, and items designed for obsolescence. Urban design and waste management is improved to prevent pollutants from entering the biosphere e.g. Sustainable Urban Drainage Systems (SuDS) protect the water system from microplastics.

Glasgow's procurement, construction, and waste management policies and procedures are transformed. Support is provided for alternative business models to keep materials and products circulating locally.

EXCESSIVE FERTILIZER USE Farming practices in Glasgow's global supply chains are effective in minimising reliance on excessive fertilizer use. Glasgow supports and requires sustainable land use throughout its supply chains.

What could this look like?

Glasgow's surrounding farmlands utilise permaculture or regenerative agriculture methods. We support small-scale, local, food businesses (both growing and selling). Glasgow does not waste food. We use any food excess for compost to enrich local soil health. Subsidy or tax relief is provided to sustainable or regenerative food businesses. We can use previously vacant and derelict sites for growing food, cycling water and regenerating soil, in order to reduce dangerous nutrient loading elsewhere e.g. further upstream Glasgow's rivers.

FRESHWATER WITHDRAWALS Glasgow contributes to a sustainable and fair global water footprint.

What could this look like?

The water footprint of Glasgow's production and consumption is minimised. People in Glasgow adopt circular economy principles in their water consumption patterns.

Supply chains are fed by sustainable practices in the food and textile industries. People eat predominantly plant-based diets, that are less water intensive than the production of meat. People in Glasgow have access to transparent, easy to understand information about how sustainable our overall use of water is, and the water footprint of our products.

|                 | Communication campaigns inform residents about   |
|-----------------|--|
|                 | Glasgow's water footprint, and the volume of water   |
|                 | required for everyday items (clothes, food etc.)   |
| LAND            | Glasgow's supply chain is built upon transparent and   |
| CONVERSION      | sustainable land use practices, ensuring responsible   |
|                 | and accountable land management. Glasgow   |
| <b>44</b>       | maximises its global influence to support restorative  |
|                 | land use practices.  |
| What could      | Glasgow makes use of urban allotments, vertical farming,   |
| this look like? | and city rooftops, to reduce the amount of land used for   |
|                 | agriculture, and allow more natural biodiversity to  |
|                 | flourish. Food produced by industrial agriculture methods  |
|                 | that cause deforestation is not imported into the city.  |
|                 | Policy interventions incentivise good practice, penalise   |
|                 | damage to natural landscapes, and empower  |
|                 | communities to be involved in sustainable land   |
|                 | management.  |
| BIODIVERSITY    | Glasgow uses its political influence and convening   |
| LOSS            | power to facilitate awareness raising, evidence  |
| •               | generation and debate around biodiversity solutions.   |
| What could      | Glasgow carefully disincentivises supply chains and  |
| this look like? | consumption practices that have negative   |
|                 | consequences for global biodiversity, whether that is  |
|                 | through pesticide use, CO2 emissions or waste  |
|                 | management.  |
|                 | Agriculture and fishing are less intensive, maintaining  |
|                 | sustainable level of fish populations e.g. wild salmon.  |
|                 | More urban allotments are used for food growing, leaving   |
|                 | untouched land intact. Glaswegians understand the  |
|                 | importance of biodiversity for human and planetary   |
|                 | l  |
|                 | health through education and communication initiatives.  |
| AIR POLLUTION   | Glasgow supports and requires activity in the city and   |
| AIR POLLUTION   | Glasgow supports and requires activity in the city and its supply chains to eliminate contributions to global air            |
|                 | Glasgow supports and requires activity in the city and its supply chains to eliminate contributions to global air pollution. |
| What could      | Glasgow supports and requires activity in the city and its supply chains to eliminate contributions to global air            |
|                 | Glasgow supports and requires activity in the city and its supply chains to eliminate contributions to global air pollution. |

are minimised. Policy and financial support is available for initiatives such as Liveable Neighbourhoods and Low Emission Zones, to disincentivise car use and promote active travel and more widespread use of public transport.

Glasgow reduces its industrial emissions footprint by ending the production and consumption of single-use or short-life items (including products imported from around the world).

OZONE LAYER DEPLETION

What could this look like?

Glasgow avoids using ozone-depleting chemicals and gases, and contributes to the development of alternatives through research and development.

Raising awareness and education about the harms of ozone layer depletion, and which substances contribute to this.

Support provided for suitable alternatives, and more ozone-friendly practices, such as more sustainable forms of transport in the city, strengthened by environmental regulation.

# D. How will Glasgow respect and support the wellbeing of people worldwide?

| FOOD SSS        | Glasgow supports a human rights approach to food for          |
|-----------------|---|
|                 | all.  |
| What could      | Glasgow does not import food for consumption here at the      |
| this look like? | expense of more distant communities. Glaswegians do not       |
|                 | consume unsustainable amounts of food that global             |
|                 | populations rely on e.g. quinoa, nor foods that cause         |
|                 | deforestation e.g. beef, avocadoes. Local and low-carbon      |
|                 | food production is supported to ease pressure on the          |
|                 | global agricultural system. Information is made easily        |
|                 | available about healthy and sustainable diets e.g.            |
|                 | methods and benefits of switching to primarily plant-         |
|                 | based food.   |
| WATER           | Glasgow does not use more than its fair share of water,       |
| $\Diamond$      | either directly or indirectly (through imported goods).       |
| What could      | Glasgow does not deplete global water supplies by             |
| this look like? | importing unsustainable amounts of products that use          |
|                 | water intensively, such as fast fashion. Glasgow does not     |
|                 | pollute the wider water systems e.g. through antibiotics,     |
|                 | nutrients in salmon feed, or microplastics.                   |
|                 | Material goods and clothing are reused and recycled, to       |
|                 | reduce industrial burdens on global water supplies.           |
|                 | Decontamination of vacant and derelict land sites, and        |
|                 | tighter regulation and enforcement of environmental           |
|                 | standards, reduces pollution in waterways.                    |
| HEALTH          | Glasgow acts to improve global health and wellbeing,          |
| ♡.              | and does not exacerbate existing threats to health and        |
| O               | wellbeing through the working and industrial practices in     |
| 200             | its supply chains and recruitment practices.                  |
| What could      | Procurement practices are overhauled and supply chains        |
| this look like? | coming into Glasgow do not involve dangerous or               |
|                 | hazardous working conditions such as unsafe mining or         |
|                 | child labour.   |
|                 | Glasgow trains enough local citizens to fill essential health |
|                 | sector jobs, avoiding the tendency to recruit from other      |

|                 | nations at levels that leave their local populations       |
|-----------------|--|
|                 | underserved.   |
|                 | Food exported from Glasgow and its regions (such as fish)  |
|                 | is free from harmful toxins e.g. heavy metals.             |
|                 | The labels on products for sale in Glasgow are improved to |
|                 | offer trustworthy information about the conditions and     |
|                 | wellbeing of workers in the supply chain.                  |
| EDUCATION       | Glasgow supports and advocates for equal rights and        |
| $\square$       | access to education for all global populations.            |
| What could      | Students worldwide are able to benefit from Glasgow's      |
| this look like? | high-quality universities. Opportunities for global        |
|                 | collaboration support gender and social equity (lower      |
|                 | international fees, more ways to participate remotely) and |
|                 | sustainability (not dependent on high-carbon transport     |
|                 | e.g. flying)   |
|                 | Student exchange programmes are established and            |
|                 | extended to build worldwide solidarity between students    |
|                 | and share multidirectional learning.                       |
|                 | Goods in Glasgow's supply chains are not provided by       |
|                 | child labour, which removes the opportunities for children |
|                 | worldwide to receive an education.                         |
| HOUSING         | Glasgow does not contribute to conditions that threaten    |
|                 | the stability and security of places and materials for     |
|                 | global communities.  |
| What could      | Glasgow reduces its contribution to climate change via     |
| this look like? | CO2 emissions, which is causing floods, crop failures and  |
|                 | rising sea levels in particularly vulnerable global        |
|                 | communities e.g. The Island Nations.                       |
|                 | Direct and indirect Greenhouse Gas emissions in the most   |
|                 | intensive sectors such as transport, agriculture, and      |
|                 | heating, are minimised.                                    |
| ENERGY          | Glasgow uses and produces energy in ways that              |
| - <u>;</u> ċ;-  | contribute to global Net Zero ambitions, and is            |
| *               | considerate in its direct and indirect use of energy to    |
|                 | minimise global energy consumption.                        |
| What could      | Glasgow is developing methods of green energy              |
| this look like? | generation and storage that can be exported and shared     |
|                 |  |

worldwide, to reduce other nations' dependence on extracting and burning fossil fuels.

Glasgow's material footprint is minimised, to reduce embedded emissions, and is not supplied by goods or products that are made using fossil fuel energy.

INCOME & WORK

Glasgow supports Fair Trade principles and good working conditions for all workers involved in its supply chains.

What could this look like?

Glasgow does not import goods that are produced using forced labour, child labour, or hazardous working conditions.

Initiatives are in place to minimise the need for new goods such as textiles that are likely products of poor working conditions e.g. setting up school uniform or sports uniform banks.

Trade-offs are acknowledged and managed between Glasgow's immediate need for certain goods (such as personal technology) and the poorly regulated countries and industries that supply them (including dangerous mining and factories).

SOCIAL EQUITY

Glasgow takes responsibility as a Global North city to raise living standards worldwide, and reduce global inequalities.

What could this look like?

Glasgow develops world-leading sustainable procurement practices and reduces its consumption of products from exploitative industries that erode social equity.

Glasgow makes progress towards climate neutrality without increasing the burden on other countries e.g. through exporting waste.

Glasgow does not fund or invest in practices or businesses that cause social or ecological harm e.g. through pension funds.

Glaswegians are able to access better information and choice in relation to the social footprint of the goods and services consumed in the city.

EQUALITY IN DIVERSITY

Glasgow is welcoming to all people from all cultures and delivers healthy cultural inclusion. Glasgow's activities do not support or uphold regimes with poor human rights records.



| What could       | We challenge threats to equality, such as 'hostile          |
|------------------|---|
| this look like?  | environment' policies.                                      |
| tilis look like: | environment policies.                                       |
| COMMUNITY/       | Glaswegians act as 'global citizens' to build community     |
|                  |   |
| NETWORKS         | and solidarity worldwide.                                   |
|                  |   |
| D                |   |
| What could       | Cultural and educational exchange programmes build          |
| this look like?  | strong networks and connection between Glasgow              |
|                  | residents and global populations.                           |
|                  | Glasgow supports and welcomes climate refugees, and         |
|                  | provides training and employment opportunities for          |
|                  | newcomers to the city.                                      |
| POLITICAL        | Glasgow sets a leading example of free, inclusive and       |
| VOICE m          | intergenerationally just democratic engagement in           |
| ()               | political decisions.  |
| What could       | n/a – no further suggestions made in workshops              |
| this look like?  |   |
| PEACE &          | Glasgow ensures representation, inclusion, and              |
| JUSTICE          | protection of the rights of those most vulnerable to the    |
| Ala              | effects of climate change.                                  |
| 9]9              |   |
| What could       | Glasgow's climate and ecological footprints are minimised,  |
| this look like?  | lessening its contribution to global instability, forced    |
|                  | migration, and conflicts.                                   |
|                  | Clean local energy reduces Glasgow's dependence on          |
|                  | imported fossil fuels e.g. gas. Short-term and long-term    |
|                  | gains are carefully balanced e.g. Glaswegians who can       |
|                  | afford to, are making certain sacrifices locally, to secure |
|                  | the long-term futures of people globally.                   |
|                  | Transparency and comprehensive reporting is insisted        |
|                  | upon, from corporations and SMEs, about the footprint of    |
|                  | their products and services.                                |
|                  | Glasgow supports the work of existing refugee               |
|                  | organisations e.g. Refuweegee.                              |