Gender budgeting in active travel in Scotland

Report by Tiffany Lam for Sustrans and Transport Scotland, with support from the UK Women's Budget Group and the Scottish Women's Budget Group.

sustrans

Contents

sus**trans**

Executive Summary

The Scottish Government has committed 10% of Scotland's transport budget (£320 million) for active travel by 2024/25. This represents a significant uplift in active travel spending in Scotland. Investment in infrastructure for walking and cycling is the largest active travel investment thread in Scotland. Places for Everyone is the major active travel infrastructure investment fund. Places for Everyone is currently administered by Sustrans. It is important to ensure that infrastructure investment is distributed fairly to promote inclusive walking, wheeling and cycling.

This report explores how gender budgeting could be applied to active travel investments in Scotland to promote more gender equal funding distribution and outcomes, and therefore help deliver on all five active travel outcomes in Transport Scotland's Active Travel Framework. Adopting an intersectional gender perspective, which uses gender as an inroad to consider the ways in which multiple inequalities interact and compound each other, can help tackle gender and other inequalities in active travel.

Gender budgeting is an effective tool to put an intersectional gender perspective into practice. It enables an analysis of the differential and gendered impacts of government policies, investments and budgets on different groups of women and men, girls and boys, depending on other socioeconomic and demographic factors (e.g. income, ethnicity, age).

To implement gender budgeting, there are three preconditions that governments, public bodies and organisations must meet:

— An explicit commitment to gender equality goals in policy, planning and budgeting processes;

— Gender expertise (internally or externally) within the decision-making team;

— Diverse leadership within the decision-making team.

These should be present throughout the process of gender budgeting. Then, three key elements contribute to effective gender budgeting:

— Gender-based analysis (using intersectional data, or data disaggregated by sex and other sociodemographic characteristics, such as income, ethnicity, age, disability, gender identity and sexual orientation);

— Implementing changes based on gender analysis;

sus**trans**

— Working with relevant actors within and outside of government (e.g. local women's or disabled people's organisations).

Where governments, public bodies and organisations can develop a plan to meet the preconditions for gender budgeting, they can gradually work towards implementing effective gender budgeting.

The framework for gender budgeting in active travel infrastructure investment, which was developed to accompany this report, is a tool that Transport Scotland and Sustrans can use to work towards more gender equal active travel funding distribution and drive the active travel outcomes identified in the Active Travel Framework (e.g. walking, cycling and wheeling is safer for all).

There are six criteria in the gender budgeting in active travel infrastructure investment framework: (i) engagement, (ii) infrastructure, (iii) health and safety, (iv) accessibility, (v) affordability and (vi) monitoring and evaluation. The hope is that the discussion questions in the framework will serve as a starting point for Transport Scotland and Sustrans to explicitly consider issues around gender equality in active travel when reviewing funding applications, designing and delivering projects, as well as evaluating and monitoring the progress of projects.

Active travel infrastructure projects are not currently required to include gender budgeting. Projects delivered by local authorities should include Equality Impact Assessments (EQIAs), which will have an element of gender analysis, but there tend to be inconsistencies in the quality of EQIAs. The three case studies of recent active travel projects in Scotland are used to illustrate how and why gender analysis and gender budgeting would be beneficial. The case studies are anonymised and included in the appendix.

To conclude, this report offers nine recommendations for Transport Scotland, Sustrans, local authorities and community organisations to work towards implementing gender budgeting in future active travel investments:

— Establish an explicit gender equality goal to promote equality of outcomes.

— Require funding applicants to address how their project will contribute to this gender equality goal.

— Develop gender expertise, through access to training or toolkits, and support community groups and local authorities applying for funding to do the same.

— Use the framework for gender budgeting in active travel investment.

— Collect and analyse intersectional data.

sustrans

— Embed Equality Impact Assessments, gender safety audits and accessibility audits in design and decision-making processes.

— Partner with community organisations to do meaningful engagement with local people.

— Work towards diversifying the team making decisions about funding allocation. At a minimum, require funding applicants to develop a strategy to ensure that diverse perspectives are considered in active travel projects.

— Fund both physical and social infrastructure for cycling.

sus**trans**

Introduction

Transport Scotland has an Active Travel Framework that sets out a vision for Scotland's communities to be 'shaped around people, with walking or cycling the most popular choice for shorter everyday journeys' by 2030 (Transport Scotland, 2019). To that end, 10% of Scotland's transport budget (£320 million) has been committed for active travel by 2024/25, a marked uplift in active travel spending (Transport Scotland, 2022). Places for Everyone is the major active travel investment thread in Scotland and is administered by Sustrans on behalf of Transport Scotland. To ensure a fair distribution of investment, it is important to adopt an intersectional gender perspective to address inequalities in active travel (Lam, 2022; Aldred, Woodcock and Goodman, 2016).

An intersectional gender perspective uses gender as an inroad to consider the ways in which multiple inequalities interact and compound each other (Crenshaw, 1989). An understanding of power dynamics and the ways in which structural and spatial inequalities contour walking, wheeling and cycling can equip policymakers and practitioners to promote more inclusive active travel systems (Lam, 2022). As Transport Scotland's Active Travel Framework highlights, gender, age, health status, disability and socioeconomic circumstance influence levels of walking and cycling, and 'activity needs to be focused around all of these issues' (Transport Scotland, 2019).

Gender is a useful entry point to analyse and address inequalities in transport because despite being one of the most robust determinants of travel purpose and mode, it is often ignored in transport planning (Women's Budget Group, 2021; Lam, 2022; Sustrans, 2018). For example, due to the gendered division of household labour, women tend to make more care-related journeys, often requiring travelling with other people (e.g. children, older people) and making multiple stops (trip chaining).

Yet transport systems prioritise radial journeys that serve the 'typical' work commute, which disproportionately benefit men at the expense of women and those with more varied journeys, such as older people, children and shift workers (Women's Budget Group, 2021; Lam, 2022). This is often replicated in cycling infrastructure planning, which prioritises east-west and north-south corridors leading in and out of city centres (Lam, 2022; Sustrans, 2018).

In the UK, 85% of people over age 65, 78% of disabled people, 76% of women, 75% of people at risk of deprivation and 74% of people from ethnic minority backgrounds do not cycle (Sustrans and Arup, 2020). 74% of people cycling on the National Cycle Network are men and 98.5% are white (Sustrans, 2018). Men in Scotland are over twice as likely (29%) as women (13%) to cycle at least once a week and more likely to think cycling is safe (45% vs.

39%, respectively) (Sustrans, 2022a). In addition to street harassment, women in the UK are at increased risk of near misses and road abuse from drivers (Aldred, 2016).

There are disparities in the quality and safety of walking environments, which reflect and reproduce broader socioeconomic inequalities in society (Sustrans & Arup, 2022). Across the UK, people from ethnic minority backgrounds tend to make more walking journeys (29-35%) than white people (25%) (Sustrans, Living Streets and Arup, 2022). Despite lower levels of car ownership and usage, people with lower incomes are disproportionately injured or killed by road collisions and traffic-related air pollution (Fosdick, 2015; Barnes, Chatterton and Longhurst, 2019; Fairburn et al., 2019). People from ethnic minority backgrounds from socioeconomically deprived backgrounds are over three times more likely to be pedestrian casualties on Britain's roads than pedestrians who are white and not from deprived backgrounds (Living Streets, 2021). In Scotland, the rate of traffic collisions involving children walking or cycling in the 20% most deprived areas is more than triple that of the 20% least deprived areas (Quayle, 2019).

These inequalities in active travel underscore the need to democratise the right to safe and sustainable mobility. This is reflected in Transport Scotland's Active Travel Framework, as one of the strategic objectives is reduced inequalities – widening access to jobs, services and leisure for all, including children, older people, people with disabilities and people on low incomes (Transport Scotland, 2019). The five outcomes in the Active Travel Framework also demonstrate a commitment to promoting inclusive walking, wheeling and cycling (Transport Scotland, 2019):

— Increase the number of people choosing walking, cycling and wheeling in Scotland;

— High quality walking, cycling and wheeling infrastructure is available to all;

— Walking, cycling and wheeling is safer for all;

— Walking, cycling and wheeling is available to all;

— Delivery of walking, cycling and wheeling is promoted and supported by a range of partners.

Gender budgeting is an effective tool to put an intersectional gender perspective into practice and ensure fairer distribution of public spending to deliver on these Active Travel Outcomes. The budget process in Scotland includes the Equality and Fairer Scotland Budget Statement, which requires an assessment of the impact of proposed public spending on different groups of people and how it may help reduce inequalities (Scottish Government, 2021). This is an important statement of intent and commitment to equality analysis within the Budget process, which can be replicated in other public policy processes.

This report explores how gender budgeting could be applied to active travel investments in Scotland to promote more inclusive walking, wheeling and cycling. It begins with a discussion of gender budgeting, introduces a framework to apply gender budgeting to active travel infrastructure investments and concludes with recommendations for Sustrans and Transport Scotland on how to drive more gender equal investments and outcomes in active travel. The appendix contains three anonymised case studies of recent active travel projects to illustrate how gender budgeting could be adopted to increase gender equal outcomes in active travel.

Gender budgeting

Gender budgeting enables an analysis of the differential and gendered impacts of government policies, investments and budgets on different groups of women and men, girls and boys, depending on other socioeconomic and demographic factors, like income, ethnicity, age and disability (Women's Budget Group, 2018). Applying gender budgeting to active travel investments can enable a distributional analysis that makes explicit who benefits from new active travel infrastructure and who is left out (Lam, 2022). This process can guide the restructuring of budgets to promote fairer and more inclusive distribution of public resources (Women's Budget Group, 2018; Women's Budget Group, 2021). For example, gender budgeting can help Transport Scotland in 'delivering places that are happier, more inclusive and equal, and more prosperous' (Transport Scotland, 2019).

There are three preconditions that must be met before governments, public bodies and organisations can begin to work towards implementing gender budgeting:

— An explicit commitment to gender equality goals in policy, planning and budgeting processes;

— Gender expertise (internally or externally) within the decision-making team;

— Diverse leadership within the decision-making team.

These must remain present throughout the process of gender budgeting, which in turn requires three key elements:

— Gender-based analysis (to the extent possible using intersectional data, or data disaggregated by sex and other sociodemographic characteristics, such as socioeconomic status, race/ethnicity, age, disability, gender identity and sexual orientation);

— Implementing changes based on gender analysis;

sus**trans**

—   Working with relevant actors within and outside of government.

Ultimately, gender budgeting aspires to make the process and outcomes of policymaking and budgeting more transparent, equal and participatory.

Three preconditions for gender budgeting

Explicit commitment to gender equality goals

The first precondition for gender budgeting is having an explicit commitment to gender equality goals in policy, planning and budgeting processes. This is necessary to set a strategic vision, convene relevant stakeholders and direct resources to promote equality of outcomes.

For example, in 2019 the City of Bogota became the first city in the world to establish a public policy goal to achieve gender equality in city cycling. Setting this goal enabled city officials across departments to work together to build their capacity to understand and address structural drivers of the gender gap in cycling, as well as fund a range of projects, including ones involving community organisations, to help get more women cycling (Sustainable Urban Transport Project, 2020). Bogota also hosted the '50/50 More Women on Bicycles' International Congress in September 2019, which brought together stakeholders across sectors from Colombia and beyond to share good practice on how to promote gender equality in cycling and other areas of urban life.

Another example is the 2019 Oakland Bike Plan, which includes an Equity Framework and is the only city cycling policy document to date that has an explicit focus on equity. According to the Plan, 'equity means that your identity as an Oaklander has no detrimental effect on the distribution of resources, opportunities and outcomes for you as a resident' (OakDOT, 2019). The Equity Framework considers who the most vulnerable groups are in Oakland, what the desired condition of wellbeing is for Oakland's most vulnerable communities, as well as how the implementation of the Bike Plan can help achieve those conditions (OakDOT, 2019).

It pays particular attention to the intersection of gender, race and socioeconomic background, and identifies women, gender nonconforming individuals, people from ethnic minority backgrounds and people on low or no incomes as among the most vulnerable communities who would benefit the most from new cycling investments. As such, communities that experience higher levels of socioeconomic disadvantage and are underserved by cycling infrastructure are prioritised for new cycling infrastructure (OakDOT, 2019; OakDOT, 2022).

sus**trans**

Gender expertise

The second precondition for gender budgeting is that there must be gender expertise within the team (internally or externally) making decisions about public policies and spending. Gender expertise is an understanding of gender as a socially constructed category of identity that interacts with other aspects of identity (e.g. sexual orientation, socioeconomic status) and shapes our lived experiences, as well as social, political, economic and spatial relationships (Women4Climate, 2019a). Gender expertise means focusing on collective action and systemic changes, not individualising structural problems. Rather than placing the onus on women to simply 'lean in' or change their individual behaviours or attitudes, an individual or team with gender expertise would assess how systems are failing women and other marginalised groups, and therefore need to change.

The application of gender expertise is currently lacking in the transport sector. A survey of 353 UK transport professionals found that just 13% report always considering gender in their day-to-day work, whereas 46% never consider it and 41% somewhat consider it (GET IT, n.d.). When asked what would help transport professionals better incorporate gender considerations in their work, the top two responses were to attract more women into the industry and increase awareness and education (GET IT, n.d.).

The City of Barcelona offers an example of how to develop gender expertise internally. In 2016 the City of Barcelona launched a Plan for Gender Justice, with four strategic areas: institutional change; economy for life and time management; city of rights; and liveable and inclusive neighbourhoods (Women4Climate, 2019a). Under the first strategic area, institutional change, city officials have increased institutional gender expertise through training, collecting and analysing sex-disaggregated data, as well as gender budgeting (Women4Climate, 2019a). In the UK, the burgeoning feminist city work in Glasgow and the Women-Friendly Leeds initiative in Leeds are examples to watch as both cities progress their efforts to build and act on gender expertise.

To deliver on the fourth strategic area, liveable and inclusive neighbourhoods, city officials have embedded a gender perspective in urban and transport planning, as documented in The Manual of Urban Planning for Everyday Life (Barcelona City Council, 2019). This included conducting gender safety audits in different neighbourhoods, gathering sex-disaggregated data to understand women's mobility patterns and developing projects to make public spaces safer and more inclusive for women and girls (Barcelona City Council, 2019).

Meanwhile the Los Angeles Department of Transportation (LADOT) offers an example of how to build gender expertise by working with external partners. LADOT commissioned the Kounkuey Design Initiative (KDI) to produce a report with data and recommendations to

sus**trans**

make transportation in Los Angeles more gender inclusive and equitable. Changing Lanes: A gender equality transportation study was published in 2021 and fills an important data gap by focusing on the travel patterns and experiences of women of colour with low incomes and from households without car access (LADOT, 2021). KDI is building on this report to develop a Gender Equality Action Plan (forthcoming, 2023) to help LADOT create a more gender inclusive and sustainable transport network.

Diverse leadership

The third precondition for implementing gender budgeting is diverse leadership within the decision-making team. This means having more women, gender minorities, people from ethnic minority backgrounds, disabled people, LGBTQIA people and people from lower socioeconomic groups represented in decision-making processes. In the UK, women represent just 14% of the built environment sector and 21% of the transport sector (Women4Climate, 2019a; European Commission, 2019). In Scotland, transport has the fourth lowest proportion of women (25%) represented in senior positions within the public sector (Engender, 2023). Although there is little data on racial diversity in the built environment and transport sectors, a 2005 CABE figure showed that people from ethnic minority backgrounds comprise just 4% of the transport planning workforce (CABE, 2005).

Women in the transport sector describe it as a male-dominated industry with a macho culture where sexual harassment is 'part of the job' (AAPG for Women in Transport, 2021; ETF, 2017). The dual lack of gender expertise and diversity within the transport sector, particularly at the leadership level, can result in transport systems that fail to meet the needs of diverse and pluralistic populations (Women4Climate, 2019a). Mentoring programmes for women and underrepresented groups, as well as participatory engagement methods with diverse communities have been evidenced as ways to help increase diversity in leadership and decision-making teams (Women4Climate, 2019a).

Three key elements of gender budgeting

These preconditions – an explicit commitment to gender equality goals, gender expertise and diverse leadership within the decision-making team – must continue to feature in the process of gender budgeting. As a first step, governments, public bodies and organisations can try to develop a plan to meet the preconditions for gender budgeting. This can set the stage to gradually adopt gender budgeting.

Gender-based analysis

The first key element of gender budgeting is gender-based analysis using intersectional data, that is, sex-disaggregated data and data disaggregated by other sociodemographic

sus**trans**

characteristics, such as socioeconomic status, ethnicity, age, disability, gender identity and sexual orientation (Women's Budget Group, 2018; Wales Centre for Public Policy, 2019). Intersectional data is important to understand how diverse populations use services and facilities differently, according to their needs and experiences. It can be analysed to identify intervention points that can lead to more inclusive infrastructure and service provision.

The Scottish government launched a Working Group on Sex and Gender in Data to identify gender gaps in data collection and provide guidance to public bodies on collecting and analysing sex-disaggregated data to enable more inclusive policies and services (Women's Budget Group, 2021). This is a positive step to increase capacity for more widespread adoption of gender budgeting.

Intersectional data analysis entails the crosstabulation of different variables (e.g. age + sex, disability + sex, etc.). This may be challenging in small and/or relatively homogeneous samples because there will be very few, if any, respondents in certain categories. In these cases, an alternative would be conducting ethnographic and qualitative research (e.g. interviews and focus groups) with underrepresented groups, or groups in the local area that are currently not being seen in the data (e.g. LGBTQIA people, disabled people). While these methods require more time and resources, they enable meaningful engagement with diverse communities. Partnering with local women's and/or equalities organisations from project inception can also help ensure more diverse engagement, intersectional data collection and gender expertise.

At a minimum, sex-disaggregated data should be collected – Women comprise half the population, and so it will be more straightforward to see whether active travel infrastructure benefits women and men equally. For example, analysis of sex-disaggregated data from a Sustrans Route User Intercept Survey (RUIS) could identify gender differences in feelings of safety on (and therefore usage of) a new active travel route. Looking at the gender breakdown in responses to questions about safety makes it possible to compare how feelings of safety vary between women and men, and how that impacts usage of the route. If disproportionately more women report feeling unsafe, Sustrans can follow up by conducting a gender safety audit with a group of local women and girls to understand where and why they feel unsafe and what would make them feel safer, which can lead to route improvements.

A gender safety audit was conducted by engineering and design company Atkins, as part of Edinburgh's city centre transformation. Atkins led a gender safety audit of George Street at different times of day and night (4pm, 9pm and 5am) with local women and men (Sustrans, 2022). The gender safety audit was based on the Get Home Safe toolkit that Atkins developed, which features six areas to increase women's and girls' safety in public space: landscape, human presence, digital, infrastructure, community/social and the appearance, or

sus**trans**

'look and feel' aspects of a street (Atkins, 2021). The hope is that participants' feelings and experiences of safety, as well as recommendations on how to improve safety will feed into the final scheme.

An example of good practice in gender-based analysis is from the City of San Francisco. In 2018, city officials collected and analysed data disaggregated by sex, race and socioeconomic status to understand who was benefiting from new cycling infrastructure and who was being left out (Women4Climate, 2019). While people using new cycle lanes came from households with incomes ranging from under $20K to over $250K, there were stark gender and racial disparities. Consistent with findings from studies in other US cities, this study found that white men were the predominant users of new cycle lanes and just 29% of people using the new cycle lanes were women (Women4Climate, 2019). Although women of colour represent 34% of the San Francisco population, they represented just 13% of people using the new cycle lanes (Women4Climate, 2019). The intersectional analysis guided the development of targeted recommendations and initiatives to increase cycling among women of colour in San Francisco.

Implementing changes based on gender analysis

Another key element of gender budgeting is the implementation of changes based on gender analysis. It is not enough to merely collect and disaggregate data by sex and other sociodemographic characteristics. This data needs to be meaningfully interpreted and applied to policy and budgeting processes.

In Scotland, the Equality and Fairer Scotland Budget Statement 2022-2023 accompanies the Scottish Budget and sets out how public spending will mitigate inequalities for protected groups (Scottish Government, 2021). However, the Equalities Budget Advisory Group have made recommendations to the Scottish Government to improve the equalities and human rights analysis used within this statement and wider budget processes. Improving capacity on equalities and human rights analysis is highlighted as one of the main organisational developments required (Scottish Government, 2021a).

The City of Vienna offers a useful example of how gender analysis led to substantive improvements in urban and transport planning. Vienna was an early adopter of gender budgeting, implementing it in 2005 as part of a broader citywide gender mainstreaming initiative (Women4Climate, 2019a). All municipal departments are required to assess who benefits from public spending and services, as well as how the distribution of public resources affects gender inequalities and make any corrective changes based on that analysis (TInnGO, n.d.).

Gender budgeting in active travel in Scotland
08/03/2024

sustrans

As part of a gender mainstreaming pilot in Vienna's Mariahilf District, city officials studied gendered mobility patterns and found that women were more reliant on walking and public transport than men. Based on these findings, city officials introduced a series of urban realm improvements between 2003 and 2005, including widening 1,000 metres of pavement, 40 new street crossings, 26 street lighting projects, removing barriers from five pavements, putting in a lift in public space and adding seating in 9 locations (TInnGO, n.d.). All these improvements increased accessibility and safety for women and girls in Mariahilf and this pilot served as a template for future citywide gender inclusive transport and urban planning projects (TInnGO, n.d.).

The increasing attention that transport policymakers and planners in Latin America are paying to the 'mobility of care' offers another example of how gender analysis can lead to more gender inclusive transport systems. Care work and care-related travel are highly gendered, disproportionately falling on women (Oxfam, 2020; Women's Budget Group, 2021). The 'mobility of care' refers to all travel related to domestic and caring responsibilities, both paid and unpaid (Sánchez de Madariaga, 2013).

The City of Bogota has launched several 'mobility of care' initiatives to better support care-related journeys that women disproportionately make. Firstly, as of 2019 care has been included as a reason for travel to the Household Mobility Survey to collect more data on care-related trips. This has enabled an intersectional analysis that has exposed stark differences in the total number, distance and duration of care trips, based on gender and socioeconomic status (Murillo-Munar, J. et al., 2022). Secondly, Bogota also introduced a 'mobility of care' pilot with a focus on safe walking and cycling routes to school for children in select neighbourhoods (C40 CFF, 2020). Thirdly, city officials commissioned a study of female essential workers' cycle commutes during the COVID-19 pandemic to better understand how well existing cycling infrastructure facilitated safe cycling journeys for key workers (C40 CFF, 2020).

Working with relevant actors within and outside government

The third key element of gender budgeting is working with key actors within and outside government. This is consistent with the fifth outcome in Transport Scotland's Active Travel Framework – delivery of walking, cycling and wheeling is promoted and supported by a range of partners (Transport Scotland, 2019). Examples of relevant actors outside government include women's and equalities organisations.

Gender budgeting in Scotland

In Scotland, there have been favourable conditions for gender budgeting due to the early advocacy of the Scottish Women's Budget Group (SWBG) and its engagement with key

sus**trans**

political actors, such as the chair of the Scottish Parliament's Finance Committee (O'Hagan, 2017). An example of how gender budget analysis has been useful has been in identifying and addressing gender disparities in the beneficiaries and outcomes of Scotland's Modern Apprenticeship Programme (Campbell and Gillespie, 2017).

Since the inception of Scottish Parliament in 1999/2000, Scotland has adopted and implemented a wider equalities budgeting approach, which seeks to incorporate analysis across legally protected characteristics, such as sex, race, age, disability and sexual orientation (Wales Centre for Public Policy, 2019). In theory, this seems like it would enable an intersectional analysis of public policy and budget decisions, but in practice this has been hampered by the lack of intersectional data (First Minister's National Advisory Council on Women and Girls, 2020). Recent Scottish Government efforts, such as the creation of the Centre of Expertise in Equality and Human Rights within the Economy division of Scottish Government, recognise the need to build capacity, expertise and skills among policy officials to address cross-cutting injustices (Scottish Government, 2022a).

To date, the focus of equalities budgeting in Scotland has been at a national level, yet a large amount of budget commitments is spent by other public bodies and local authorities. While there is visionary and ambitious leadership at the national level, public bodies and local authorities can struggle with a lack of capacity, expertise and resources to implement gender analysis and gender budgeting. This is why working with partners, like SWGB, is important. SWGB have developed projects, such as Gender Budgeting Theory to Action, to provide training and support to build gender budgeting capacity at the local authority level.

A framework for gender budgeting in Places for Everyone investment

A literature review informed the development of an evaluation framework to guide the case study analysis of whether and the extent to which active travel funding allocations and outcomes have been equitable in Scotland. The literature review covered four themes:

— Active travel;

— Gender and sustainable transport;

— Gender budgeting;

— Global examples of transport policies and plans that have integrated a gender perspective.

sus**trans**

The framework for gender budgeting in active travel infrastructure investment focuses on six criteria:

1 Engagement;

2 Infrastructure;

3 Health and safety;

4 Accessibility;

5 Affordability;

6 Monitoring and evaluation.

There are a set of discussion questions and sample indicators for each of these six criteria. At a minimum, the discussion questions in the framework can help initiate conversations around gender equality in active travel funding decisions. It can be used as an internal document for Sustrans and Transport Scotland to use when drafting tenders and reviewing funding applications. It can also be used to structure discussions with shortlisted or successful applicants to ensure that issues around gender, equality and inclusion are prioritised from the start of active travel projects.

The framework can be used to hold the project delivery team to account throughout the course of project delivery. For example, it can remind the delivery team to conduct an accessibility audit or gender safety audit at an earlier stage, so the final path will be more accessible and safer for all users. It can also inform the monitoring and evaluation process by ensuring that efforts are made to measure the different equality criteria. Ultimately, the framework is a living document that can and should evolve as it gets used more routinely, so that it can be most useful to practitioners and decision-makers.

1. Engagement

To promote equitable and inclusive active travel, investments in active travel must be fair and seen to be fair. To be seen to be fair, more meaningful engagement with marginalised communities is needed (IPPR Scotland, 2022; People for Bikes, 2021; Women4Climate, 2019). Most people from low-income households in Scotland feel that their needs are not considered in transport decision-making processes and 76% want more of a say in transport decisions (IPPR Scotland, 2022). Similarly, disabled people in the UK feel ignored, or only considered as an afterthought, in decisions made about transport and would like to be engaged more throughout all stages of planning (Possible, 2022; Sustrans, Living Streets and Arup, 2022; Sustrans and Arup, 2020).

sustrans

While marginalised groups broadly understand and support measures to reduce car usage, they are concerned that their voices and experiences are omitted from decision-making processes (IPPR Scotland, 2022; Possible, 2022). They also feel the burden should fall more heavily on groups with more privilege (e.g. non-disabled people, more affluent households), who have larger carbon footprints and more resources to reduce them (IPPR Scotland, 2022; Possible, 2022). Since households with low or no incomes are lower carbon emitters who are not driving most of the cars in Scottish cities, they feel they should not be asked to do more than they can afford (IPPR Scotland, 2022; Living Streets, 2021).

Evidence from the US shows that gender, racial and socioeconomic disparities in both cycling and perceptions of cycling, coupled with a lack of inclusive representation and community input in cycling infrastructure planning, have led to an inequitable distribution of cycling infrastructure, perceptions among communities of colour that cycling is not for 'people like me,' as well as associations of cycling infrastructure with gentrification (People for Bikes, 2021; Hoffman and Lugo, 2014; Hoffman, 2016; Stehlin, 2019; Lam, 2022).

A London study of low-traffic neighbourhoods (LTNs) implemented during the COVID-19 pandemic has found that overall, new LTNs were equitably distributed across London, with people in deprived areas, people from ethnic minority backgrounds and car-free households more likely to live in or near a new LTN (Possible, 2020). Still, the strong backlash to LTNs evidences widespread perceptions that LTNs are not fair, reflecting the need to build a greater sense of trust and community ownership with local people.

Meaningful community engagement can help build trust and reduce perceptions among underserved groups that active travel projects will not benefit them, including people who may not identify as 'cyclists' (IPPR, 2022; Lam, 2022; Possible, 2022; LADOT, 2021; People for Bikes, 2021; OakDOT, 2019). A key recommendation in The Active Nation Commissioner's Final Report was the creation of a permanent People's Panel to guide the next Active Travel Commissioner and ensure that active travel can help reduce social inequalities (Transport Scotland, 2022a). The People's Panel should consist of 30-40 randomly selected, diverse and proportionally representative cross-section of the Scottish public who would be remunerated for the time they spend preparing for and attending four virtual panels a year (Transport Scotland, 2022a).

Transport Scotland ran a National Transport Strategy People's Panel Pilot, which comprised of 19 participants who took part in four online sessions between October 2021 and January 2022 (Transport Scotland, 2022c). Participants shared concerns that those with protected characteristics face a range of barriers to achieving equal access to transport (Transport Scotland, 2022c). These concerns underscore the importance of the strategic objective in Transport Scotland's Active Travel Framework around reducing inequalities.

sustrans

In addition to a national People's Panel to consider strategic transport projects, more in-depth and creative engagement processes at the local level could be an effective way to involve a wider range of people in transport planning processes in Scotland. It can also help instil a greater sense of community agency and ownership in active travel and other transport projects.

2.   Infrastructure

Infrastructure investments tend to focus on physical infrastructure projects, such as cycle lanes. Physical infrastructure is important but focusing exclusively on it reflects a male bias and technocratic paradigm in transport planning, in which transport and infrastructure are framed predominantly as technical issues that require engineering, economic and technological skills and solutions (Women's Budget Group, 2021; Women4Climate, 2019a). While physical infrastructure is necessary to enable more people to walk, wheel and cycle, it is not sufficient to increase diversity in active travel (Lam, 2022; Sustrans, 2022a; Sustrans and Arup, 2020; Women4Climate, 2019; Women4Climate, 2019a).

Social infrastructure, such as community-based education, encouragement, outreach and peer support programmes, is necessary to enable a more diverse range of people to overcome sociocultural barriers to cycling and feel that cycling is for 'people like me' (Sustrans and Arup, 2020; Women4Climate 2019). Active travel investments must approach infrastructure from a holistic perspective and account for both physical and social infrastructure. Transport Scotland's Active Travel Framework recognises this and states, 'As well as infrastructure, this means…continuing to drive education and behaviour change programmes through literature, training and opportunities to try walking and cycling' (Transport Scotland, 2019).

The Oakland Department of Transport is the first transport authority in the world to explicitly state that cycling infrastructure investment means funding both physical infrastructure as well as cycling programmes (OakDOT, 2019). OakDOT acknowledges that it has principally been engaged in delivering physical cycling infrastructure, while leaving funding and delivery of cycling programmes to other individuals or organisations on a volunteer basis (OakDOT, 2019). As a result, the delivery of cycling education and outreach programmes has been patchy (OakDOT, 2019). The 2019 Oakland Bike Plan demarcates a shift by recognising cycling programmes as a vital component of cycling infrastructure requiring funding (OakDOT, 2019).

In the UK, active travel has largely not been a strategic priority until relatively recently. As a result, active travel policy and planning has been variously outsourced to quangos, charities, local authorities and low-cost or volunteer labour (Aldred, 2012). Active travel delivery in the

sus**trans**

'hollow state' relies on mobilising the 'active citizen' – in the form of civil society groups and/or volunteers – to deliver active travel projects, in conjunction with local authorities and other organisations (Aldred, 2012). This leads to patchy and inequitable outcomes in active travel, as only those with the privilege of time, knowledge, skills and connections can fundraise for and deliver active travel projects. When the cohort leading active travel projects – whether on a paid or voluntary basis – is a well-intentioned but relatively privileged and homogenous group (e.g. older and middle-aged, middle-class, able-bodied white men), there is a risk that diverse perspectives and issues around gender equality and inclusion may be overlooked (Women4Climate, 2019; People for Bikes, 2021).

Strategically prioritising and investing in physical and social infrastructure for active travel can help create more green jobs. This aligns with the strategic objective in Transport Scotland's Active Travel Framework around supporting sustainable economic growth. As outlined in the Oakland Bike Plan, investment in social infrastructure for cycling can help not only diversify cycling, but also complement and contribute to inclusive local economic development (OakDOT, 2019). OakDOT aims for the benefits of new local jobs and spaces created to support active travel to stay in local communities (OakDOT, 2019).

For example, education and outreach programmes can provide employment and apprenticeship opportunities for local people with low or no incomes (OakDOT, 2019). New worker-owned cooperatives that employ local people can be formed to support local cycle deliveries and cycling programmes (OakDOT, 2019). Glasgow's Women on Wheels project is an example of an initially volunteer led project that recently accessed funds to support its work to engage women in cycling. Women on Wheels designs and delivers a service led by and for women that aims to tackle existing barriers to cycling for women, especially women from ethnic minority backgrounds (Women on Wheels, n.d.).

In addition to investment in both physical and social infrastructure, it is important that physical infrastructure is inclusive of all ages and abilities. This means facilitating orbital routes, and not just radial routes (Lam, 2022; Women's Budget Group, 2021; Women4Climate, 2019; Sustrans, 2018). It also means ensuring that there is infrastructure to support movement (e.g. pavements and cycle lanes) and stillness (e.g. benches and water fountains), which is particularly important for delivery cyclists, people with restricted mobility (due to physical and/or respiratory issues) and those performing care-related journeys (Lam, 2021). Finally, a socio-spatial analysis of the provision of new active travel infrastructure is important to ensure that communities currently underserved by active travel infrastructure and public transport are prioritised for new infrastructure (Lam, 2022; Possible, 2020; OakDOT, 2019; LADOT, 2021; Sustrans and Arup, 2020).

sus**trans**

3. Health and safety

Despite the focus on the physical activity and health benefits of cycling in policy and planning, places with high levels of poor health and health inequalities are often not prioritised for new cycling projects (Sustrans and Arup, 2020). This includes lower income neighbourhoods where residents are disproportionately exposed to more traffic dangers and traffic-related air pollution (Sustrans and Arup, 2020; Sustrans, Living Streets and Arup, 2022; Living Streets, 2021). As such, it is important to ensure that new active travel infrastructure reduces pedestrian and cyclist road injuries and fatalities, while increasing opportunities for safe physical activity for vulnerable populations.

For example, the City of Oakland has configured a hotline for people to report non-emergency cycling collisions and near misses (OakDOT, 2019). In addition, pilots of new road signs in Scotland (near Longniddry in East Lothian and Strathaven in South Lanarkshire) educating drivers to give cyclists safe space when passing showed that new signage led to a reduction in dangerous close passes from 50% to 29% (Transport Scotland, 2022).

Safety measures must include a gender perspective, given the gendered nature of road safety (e.g. near misses and close passes), as well as the prevalence of gender-based harassment and violence in public space (Aldred, 2016; Women4Climate, 2019; Women's Budget Group, 2021; Sustrans, 2022). However, gendered perceptions and experiences of both personal and road safety are often omitted in cycling infrastructure design and decision-making processes (Spinney and Xie, 2018; Women4Climate, 2019). A combination of physical design interventions, like adequate lighting and clear sightlines, and social interventions, like gender safety audits and bystander intervention training, are needed to improve feelings of safety for women and girls (Sustrans, 2022; UCL Urban Lab, 2020; Women's Budget Group, 2021). Anecdotal evidence shows that street harassment is also a particular concern among LGBTQIA people, but there needs to be more research on their perceptions and experiences of safety in public space (Lam, 2022; McCullough et al., 2019).

Because perceptions and experiences of safety are also racialised, there must be measures to improve safety for ethnic minority communities. Evidence from the US shows that fear of police racial profiling is a key barrier to cycling among people from ethnic minority backgrounds, particularly Black and Latinx men (People for Bikes, 2021). A London study of barriers to cycling for Black men found that racism and fear of being stopped and searched by police were among the top deterrents from cycling (Aldred and Osei, forthcoming). Hostile environment immigration policies can deter communities of colour, particularly immigrants, from walking, wheeling or cycling (Women's Budget Group, 2021).

sus**trans**

The increased presence of delivery cyclists in cities and the business models of on-demand food and grocery delivery platforms create a 'perfect storm' that increases road dangers for all road users (Christie and Ward, 2018; Lam, 2021). While democratising platforms and improving working conditions for riders is a long-term aim, there are more immediate public space interventions that can increase riders' health and safety. For example, riders have suggested couriers' hubs in public spaces, "'somewhere to call base'" with public toilets, water fountains and benches (Lam, 2021). Those for whom cycling is work, such as delivery cyclists and cargo bike couriers, would benefit more from such measures that contribute to healthier and safer active travel environments.

4.   Accessibility

In the UK, disabled people experience greater barriers to travel and take 38% fewer trips than non-disabled people across all modes of transport (Motability, 2022). Across the UK, pavement parking and barriers on streets or in parks can create hostile walking and wheeling environments for disabled people and women with prams (Sustrans, Living Streets and Arup, 2022). Conducting accessibility audits with disabled people and older people, as well as engaging with organisations representing those groups, is an effective way to identify and address barriers to walking, wheeling and cycling (Women's Budget Group, 2021; Sustrans, 2023).

Several design improvements that would create more inclusive active travel environments for disabled people, like widening pavements and park entrances, would also benefit delivery cyclists, particularly cargo bike couriers (Lam, 2021; Couve et al., 2023). Delivery cyclists in London suggested improved signage and wayfinding to make cycling safer, as it would enable them to keep their eyes on the road instead of Google Maps or other mapping apps on their phones (Lam, 2021). Better signage and wayfinding could make walking, wheeling and cycling more accessible by giving people a better sense of distance/scale and mitigate fears of getting lost, particularly for recently arrived immigrants or refugees (Yazici, 2022).

Another important dimension of accessibility is access to key services, which are priorities in the 2019 Oakland Bike Plan and LADOT's forthcoming Gender Equality Action Plan. The 2019 Oakland Bike Plan asks what proportion of residents, particularly those living in socioeconomically deprived neighbourhoods, can access essential needs (e.g. grocery stores, schools, libraries, public transport) within a ten minute ride on a low-stress cycle route (OakDOT, 2019). In addition to considering how accessible everyday needs are by cycle, a recommendation in LADOT's Changing Lanes report is to bring mobile resources (e.g. mobile health clinics, mobile grocery stands with healthy and affordable food) to low-income, low-density, rural communities to reduce travel burdens for women. This can be an effective way to reach groups that struggle or may be reluctant to access services.

sus**trans**

In the medium and long term, the 15-minute city or 20-minute neighbourhood, in which everyone can walk, wheel or cycle to essential services within 15 or 20 minutes of their homes, would ensure greater access to key services while reducing travel burden on women and lower income households (LADOT, 2021; Sustrans, 2022a). As such, 15-minute cities or 20-minute neighbourhoods can only succeed if they are accompanied by equitable housing, land use and planning policies, greater investment in public services, as well as inclusive community engagement (TUMI and Women Mobilize Women, 2022; Women's Budget Group, 2021; Women's Budget Group, 2018; Women's Budget Group and Wen, 2020). However, the hollowing out of public services under austerity, along with historic underinvestment in areas experiencing higher socioeconomic deprivation can jeopardise successful delivery of 15-minute cities and/or 20-minute neighbourhoods (Women's Budget Group, 2021; IPPR Scotland, 2022).

5.   Affordability

Scotland is the only UK nation to establish a target to reduce distance travelled by cars, aiming for a 20% reduction in private car kilometres travelled by 2030, but considerations of affordability are central to achieving this in a fair way (IPPR Scotland, 2022). Despite broad support for reducing car usage, including road space reallocation measures, among low-income households in Scotland, support for policies with an explicit aim to restrict demand for car use was contingent on making public transport more convenient and affordable (IPPR Scotland, 2022). The majority (70%) of low-income households in Scotland felt that reducing the cost of travel should be a priority for transport decision-makers, especially as those with the least amount of resources who contribute the least to climate change should not be expected to do more than they can afford (IPPR Scotland, 2022).

Active travel investment has the potential to help reduce travel costs and time spent travelling for those with low or no incomes, if they reflect and respond to the needs of the most socioeconomically disadvantaged groups. In the UK and the US, most active travel investment has benefited a more privileged cohort for whom cycling is a lifestyle choice, due to health or environmental concerns (Lam, 2022; Hoffman and Lugo, 2014; Stehlin, 2019; Lee, 2018; Sustrans and Arup, 2020). This ignores vulnerable, economically marginalised populations who may be more reliant on walking and cycling as cheaper modes of transport.

Therefore, an equalities perspective is necessary, such that policies and plans focus on those with the greatest need who could benefit the most (Sustrans and Arup, 2020). For example, OakDOT will prioritise new cycling projects in areas with a higher proportion of disadvantaged communities (OakDOT, 2019). LADOT is exploring community cycling programmes to expand cycle access and education in low-income communities of colour, such as cycle lending libraries (LADOT, 2021).

sus**trans**

In Glasgow, the Bikes For All project helps those with very low or no incomes, including refugees and asylum seekers, access cycles (Bikes for All, n.d.). A 2018-2020 evaluation of the Bikes for All project found that it increased cycling participation among underrepresented groups and ethnic minority population groups across Greater Glasgow (Glasgow Centre for Population Health, 2020). In the second year (2019), the percentage of participants experiencing unemployment doubled (28% to 57%) and there was also an increase in participants experiencing homelessness (9% to 26%) and asylum seekers (26% to 46%) (Glasgow Centre for Population Health, 2020).

6.   Monitoring and Evaluation

Monitoring and evaluating the gender impacts of active travel investments requires asking the right questions and developing appropriate indicators to measure and follow up on goals, which requires intersectional data collection and analysis (EIGE, 2022; Swedish Women's Lobby, 2018; Women's Budget Group, 2018). However, the collection and analysis of intersectional data, data disaggregated by sex and other sociodemographic characteristics, is not a widespread and consistent practice, which poses a barrier to gender analysis and gender budgeting (EIGE, 2022; First Minister's National Advisory Council on Women and Girls, 2020; Sustrans, 2018; UK Women's Budget Group, 2018). Without collecting sex-disaggregated data or other intersectional data, it is difficult to make assessments and to monitor the gender impacts of policies, plans and projects (Swedish Women's Lobby, 2018; Women's Budget Group, 2018). Moreover, where sex-disaggregated data is collected, it must be analysed to feed into research design and evaluation processes to improve policy outcomes.

As part of the current review of the Public Sector Equality Duty regulations in Scotland, the First Minister's National Advisory Council on Women and Girls calls for the Scottish Government to place additional specific duties on listed public bodies to gather and analyse intersectional data, as well as integrate an intersectional gender budget analysis into budget setting procedures (First Minister's National Advisory Council on Women and Girls, 2020). Transport Scotland has clear expectations of delivery partners in active travel to collect and analyse sex-disaggregated and other intersectional data, if possible, through the Active Travel Framework. This expectation should be reflected in active travel budgets, with adequate time, expertise and resources dedicated to enable and support organisations with robust collection and analysis of intersectional data (EIGE, 2022; First Minister's National Advisory Council on Women and Girls, 2020; Swedish Women's Lobby, 2018).

Equality Impact Assessments (EQIAs) should also be conducted before and after the implementation of active travel projects to determine the differential impacts on different groups of women and men, as well as whether and the extent to which underserved groups

are better off because of the project. EQIAs should be an integral part of the design and decision-making process from the very beginning and not retrofitted to projects once decisions have been made (SWBG, 2022). Although this is a legal obligation, many local and public authorities lack the resources and expertise to do so. The dual lack of intersectional data and capacity for intersectional analysis in public bodies can often be a barrier to routinely and robustly conducting EQIAs (Engender, 2023).

Most Local Authority Active Travel Plans do not address gender and other inequalities in active travel (Sustrans, 2018). While EQIAs have been conducted in some cases, they have not been analysed in a way that has led to meaningful attempts to address the needs of and barriers for diverse groups of people (Sustrans, 2018). Building capacity to routinely conduct and make changes based on EQIAs, as well as collecting and analysing sex-disaggregated and other intersectional data, to the extent possible, can support more rigorous monitoring, evaluation, accountability and learning processes (Women's Budget Group, 2018; LADOT, 2021). Moreover, data collection at the national level is important to reflect high level trends but must be complemented by data collection at the local and neighbourhood levels to demonstrate more subtle changes in active travel infrastructure and participation (Transport Scotland, 2022b).

Monitoring and evaluating the gender impacts of active travel projects is important but cannot lead to change without a long-term strategy to influence government. Partnerships with civil society organisations, like local women's and equalities organisations, can help transform gender analysis into meaningful and progressive political change that advances gender equality (Women's Budget Group, 2018).

There should ideally be a feedback mechanism in the monitoring and evaluation of active travel projects, whereby new design and service standards or guidelines can be introduced in response to the needs of marginalised groups, like people with low or no incomes, women, girls and gender minorities, disabled people and people from ethnic minority backgrounds (LADOT, 2021). This can help keep local communities, particularly more vulnerable groups, engaged in active travel projects, which, in turn, can encourage more community ownership and inclusive growth in active travel. Transport Scotland's Active Travel Outcomes Framework can be this feedback mechanism, but there should be further thought on how feedback can inform learning and improvements to future projects.

sustrans

Synthesis of findings and analysis across case studies

Three active travel projects in Scotland were selected as case studies to illustrate the relevance of gender budgeting in active travel. Case studies were selected based on two criteria:

— The availability of sex-disaggregated baseline and follow-up monitoring data;

— Existing contacts with local stakeholders who could readily participate in interviews in July 2022 at the time of this research.

The lack of follow-up data (given the recent completion of these schemes) and the lack of sex-disaggregated data and other intersectional data narrowed down the list of potential case studies. The COVID-19 pandemic also delayed projects, which, in turn, delayed follow-up monitoring data collection and analysis and further narrowed the pool of potential case studies. The condensed time scale of this research also meant that the projects prioritised were ones where Sustrans had local contacts from stakeholder engagement.

Case study research consisted of a review of available baseline and follow-up monitoring data from Sustrans, desk research on the local area and interviews with one to four local stakeholders in each area, ideally at least one stakeholder involved in the project design and decision-making process and at least one stakeholder from the local community who was involved in engagement processes. Two limitations were the absence of comprehensive intersectional baseline and follow-up monitoring data, as well as the small number of stakeholders interviewed in each case study.

Case studies are anonymised in this report. Table 1 below provides a brief description of the case studies.

Table 1: Description of case studies

Case Study	About the project	Date of completion	Approx. investment (including design phase)
Project 1	An all-abilities walking, wheeling and cycling path linking two villages on an island.	Summer 2021	£765k
Project 2	The first phase of a key piece of active travel infrastructure between a town	Late 2019	£382k

	experiencing high levels of deprivation and a large development site.		
Project 3	A fully accessible park and pathway linking a canal towpath and the National Cycle Network route towards a national park.	September 2021	£3.6m

Preconditions for gender budgeting

Gender budgeting is currently not a part of active travel infrastructure investments. The three preconditions for gender budgeting – an explicit commitment to gender equality goals, gender expertise and diversity within the decision-making, design and delivery team – were not set as criteria for the active travel funding award. The three case studies were not successful in meeting the three preconditions, but this not to suggest any shortcomings in the case studies. Rather, the case studies illustrate how gender budgeting can help improve gender equality in active travel and therefore contribute to the strategic objective around reducing inequalities in Transport Scotland's Active Travel Framework. The case studies act as 'a baseline' for future integration of gender budgeting methods that may be underway.

Across all case studies, new active travel infrastructure was framed as a universal public good that was 'for everyone' and would therefore benefit 'everyone.' Some commentators argue that this is a de-politicising view that obscures inequalities in active travel, as well as broader structural inequalities within which active travel projects are situated and reproduce (People for Bikes, 2021; Lam, 2022; Lee, 2018). For example, in Scotland access to a cycle and cycling for pleasure are skewed towards men and those with higher incomes (Transport Scotland, 2022b). Compared to women, men in Scotland are twice as likely to have access to a cycle and feel safer while cycling. (Transport Scotland, 2022b). Treating active travel infrastructure as a universal public good may risk ignoring the need for targeted measures to reduce inequalities in active travel based on gender, income and other dynamics.

Stakeholders interviewed indicated that there was little engagement with gender issues in project design and delivery:

> '…gender equality has not been a problem at all. We haven't recognised it, but it's not been ever flagged up as a problem for the community. It's a very friendly community, you know. So, I would say it's not irrelevant, but it's not been a priority for us at all' (interview, Project 1 stakeholder, 19/07/2022).

sus**trans**

'I am a mere engineer. I have to say that those sorts of things [gender, diversity and inclusion] are not things that come across my desk on a daily basis' (interview, Project 3 stakeholder, 21/07/2022).

As a case-in-point, there may have been a missed opportunity to meaningfully engage with women and girls and consider their needs in Project 2. The first phase of Project 2 is an active travel link that leads to a pump track. Local stakeholders interviewed acknowledged that the pump track is mostly used by boys and young men, and the path better fulfils their needs to access and use the pump track . Therefore, the active travel link will disproportionately serve boys and men.

One mechanism that is designed to support local authorities, transport and built environment professionals to develop gender expertise and ensure that issues around equality, diversity and inclusion are raised is the Equality Impact Assessment (EQIA). EQIAs were not available at point of research for any of the case studies.

A stakeholder in one of the case studies felt that EQIAs tend to be done infrequently or only as a 'tick-the-box exercise' and said: 'it's not a process that's seen as having any value… It's just about building a road, a path… It's a culture, it's, there's no impact on the equality here' (interview, 22/07/2022). This is surprising, given that there are specific equality duties, in Scotland that require an equalities assessment of policies by public bodies on top of the UK-wide Public Sector Equality Duty. But it could be argued that this reflects the technocratic paradigm in transport planning, which privileges technical issues (e.g. physical infrastructure) at the expense of 'social' issues, like gender.

Seven of the eight local stakeholders interviewed in this research were white men. All stakeholders characterised the decision-making, design and delivery teams as mostly able-bodied, middle-aged, or older white men. Some expressed more awareness of and interest in gender issues, such as concerns around women's and girls' safety in public space. It may not be realistic to have diverse representation in project teams, particularly if they are small, but at a minimum it is important to have a strategy to engage with diverse communities within the local area throughout the project design and delivery.

Project 1 highlights the need to ensure that diverse perspectives are included, particularly when there is a relatively homogenous group leading active travel projects. The active travel funding application was led by a small voluntary group comprised of retired professional white men. The risk with homogenous decision-making bodies is that they will make decisions primarily based on their own lived experiences – as middle-class, able-bodied, white men – that have implications for a wide range of people. Despite good intentions, they may simply not be aware of the diverse lived experiences of others, such as women and people with

sus**trans**

lower incomes. For example, one stakeholder said, 'perhaps the lower socioeconomic groups of people do not use those things [the countryside, active travel paths] anyway' (interview, 22/07/2022).

While the three preconditions for gender budgeting were not present in any of the case studies, there are two positive takeaways. Firstly, funders can play a role in ensuring that decision-making, design and delivery teams incorporate a gender perspective in their work. Stakeholder interviews demonstrate how influential Sustrans has been in ensuring inclusive, accessible design of new active travel infrastructure. For example, according to a stakeholder who worked on Project 3, accessibility was prioritised from the start because 'Sustrans obviously insist on that…Sustrans certainly will have been very influential on that because they were the major funder' (interview, 21/07/2022). This demonstrates the power that Sustrans, as a funder, has on creating parameters and stipulations for funding applications and awards. There is an opportunity for Sustrans to put gender on the agenda by mandating a gender perspective in future active travel funding applications.

The second positive takeaway is that there is an appetite for developing gender expertise within local authorities and community groups, so that active travel projects can be fairer and more inclusive. A stakeholder said, 'You know, I certainly, I'm no expert on impact assessments of gender inequality, but I would like to learn, you know, there's nothing wrong with listening and thinking, okay, okay, that's a new perspective, I'll take that on board, let's think about that' (interview, 27/07/2022). The responsible local authority in that case study is also engaged in gender budgeting work with the Scottish Women's Budget Group to build capacity and expertise on gender budgeting, with departments across a wide variety of policy areas engaging with the training. The political appetite for developing gender expertise and adopting gender budgeting is promising because it demonstrates recognition and ambition to improve policy outcomes and needs to be nurtured.

Intersectional data

The collection and analysis of intersectional data is a critical component of gender budgeting Although Sustrans collects intersectional data in some cases, it typically does not get further analysed. Route User Intercept Surveys (RUIS), which were available two case studies, collect the following demographic data: gender, gender identity, age group, working status, disability, general health and ethnicity.

However, in the analysis and reporting of findings, demographic data is stated as facts rather than analysed to understand and respond to gender differences. For example, the proportion of male vs. female respondents, or the breakdown of the ethnicity of respondents get

sus**trans**

reported, but there is no further analysis of how respondents from different demographic groups felt differently (e.g. gender or age differences in self-reported feelings of safety).

In the absence of intersectional data analysis of path users, further intersectional analysis was attempted using unweighted but cleaned RUIS data for these two case studies. However, there were two challenges. The first challenge was the relatively small sample size. This was more of a problem in one of the case studies, where there were 39 respondents for the baseline RUIS and 48 respondents for the follow-up. In the other case study, there were 63 respondents for the RUIS carried out at one point of the path and 138 respondents for the RUIS carried out at another point of the path.

The second issue was the relatively homogenous group of respondents, in terms of gender, gender identity, ethnicity, disability, general health. All respondents in both sites were white, which likely reflects the local population, as people from ethnic minority backgrounds comprise just 4% of Scotland's population. In one case study, all respondents identified as White British, except for one respondent who identified as White Romanian and two who identified as White Polish. In the other case study, all respondents identified as White British except for four who identified as White Irish and one who identified as White Polish.

In both sites, most respondents were non-disabled white men between the ages of 25-64 and in good, very good or excellent health. This seems like a skewed sample, as women comprise half the UK population. One of the sites also has one of the highest rates of adults with long-term health conditions in the local authority, but few of them were represented in the RUIS data. In both sites, there was more gender balance in the follow-up RUIS (46% women and 54% men, and 40% women and 60% men), compared to the baselines (35% women and 63% men, and 21% women and 79% men, respectively). There was little diversity in gender identity, with <1% non-binary or transgender respondents in both sites.

It is important to note that homogenous samples may sometimes reflect the local population. Furthermore, homogeneity in small samples may be difficult to avoid because certain subgroups, like people from ethnic minority backgrounds or transgender people, may comprise a small percentage of the general population and therefore not show up in samples. Sex disparities are easy to spot, as it is just a matter of identifying whether there is a 50/50 split between women and men. However, it may be less straightforward to identify whether there is proportionate representation of other subgroups. This is why authorities and public bodies should at least collect sex-disaggregated data.

Intersectional analysis is problematic when there is a small sample size and homogenous sample for two reasons. Firstly, disaggregating data by demographic categories in these instances can compromise participant anonymity and confidentiality. For example, in the

sustrans

baseline RUIS for one of the case studies, there was only one female respondent between the ages of 55-64, and so reporting on responses by women aged 55-64 could make it obvious who the respondent is. The second problem is that there may not be sufficient statistical power to analyse subgroup data with a small and homogenous sample. It is impossible to detect differences between or trends among subgroups (e.g. women aged 55-64 vs. men aged 55-64) if those subgroups are underrepresented in the dataset.

When there are not enough respondents in a given subgroup to achieve statistical power, descriptive statistics (e.g. percentages and averages) can still be computed and reported, with the caveat that there are at least 10 respondents in the subgroup (Frederick, 2021). In analysing RUIS data, it was not always possible to have 10 respondents in a subgroup, and so the bar was lowered to five. For example, only three respondents in one case study were unemployed/on sick leave, and so that subgroup was excluded from analysis.

This has wider implications for collecting data on diversity in active travel. Typical methods of data collection, like pedestrian and cycle counters and RUIS, only capture who is already using the path. Even where intersectional data is collected, the homogeneity of the sample may make it impossible to identify trends among subgroups. It seems more important but more challenging to identify who is not using the path. This suggests the need to employ creative and participatory methods of data collection at a local and neighbourhood level that target underrepresented groups, such as doing walk-alongs or ride-alongs with people from ethnic minority backgrounds.

In addition, it would be good practice to match respondents against their proportion in the local area and/or wider society (e.g. regional or national level) when analysing data from counters and RUIS to spot who is missing. Investing the time, resources and skills needed for robust data collection, involving both quantitative and qualitative methods, is important to understand how equitable current investments are and future areas for improvement.

Engagement

Across all case studies, stakeholders interviewed emphasised the need for meaningful and in-depth community engagement, so that local people can have a sense of ownership over new active travel infrastructure in their area. However, in two case studies, stakeholders expressed disappointment about the community engagement process. Community engagement in one case study was described as a rushed tick-the-box exercise and a missed opportunity to engage more thoroughly with residents experiencing poverty to ensure that new active travel infrastructure would be relevant to them. Meanwhile, in the other case study, local business owners felt there needed to be more open and ongoing lines of

sus**trans**

communication between the active travel project delivery team and local people, including business owners.

The community engagement appeared to be most effective in the island case study, Project 1. Part of this is because island residents describe the island as a close-knit community. Another reason is that members of the voluntary group that spearheaded the active travel project were already known by and active in the local community. They secured a sponsorship from a local distillery early on and worked closely with them, a local church and a local primary school to ensure that local people were involved every step of the way. According to members of the voluntary group, engaging with the local church and school enabled women, older people and children to contribute their views.

Infrastructure

In all three case studies, active travel infrastructure was primarily conceptualised as physical infrastructure, the walking, wheeling and cycling paths themselves. Across case studies, stakeholders described the active travel paths as well-built, wide enough and smoothly surfaced. However, it was noted that the active travel project on the island could benefit from more circular routes along the coast to enable more scenic leisure routes, rather than just a direct line connecting two villages. Similarly, there was high demand for the active travel link in Project 2, which connects a town and a development site, to be extended and facilitate journeys to a wider range of services and destinations, rather than just the pump track.

Social infrastructure for cycling, in the form of cycling education and outreach programmes, is necessary to help underrepresented groups overcome barriers to cycling and therefore increase diversity in cycling. However, the delivery of social infrastructure for cycling has been largely left to local charities that struggle with long-term funding. There is a higher need for programmes that promote cycling in places experiencing high levels of deprivation, given the greater barriers to cycling and higher potential for cycling to help reduce people's transport costs. Stakeholders interviewed in Project 2 reported that many local people spend a high share of their income on taxis due to absent or unreliable public transport and lack of access to cycles or participation in cycling. They felt this highlighted a need for more cycling education and support programmes.

Health and safety

Safety has been largely considered from a road safety perspective. All three case studies provide traffic-free alternatives to busy A roads, therefore creating a safer and more comfortable environment for walking, wheeling and cycling for people of all backgrounds. Traffic-free routes reduce road injuries and collisions, as well as exposure to traffic-related air

sus**trans**

pollution. However, there could have been more attention to gendered perceptions and experiences of personal safety in public space. While issues around lighting and women's and girls' safety were raised in all case studies, it is unclear how well they have been addressed.

In Project 1, for example, the active travel path is only lit at the beginning and end of the path because it was felt that there were no safety issues and local people did not want light pollution in the countryside. Lighting was added at certain points of the path in Project 3 in response to concerns raised by disabled people who participated in an accessibility audit, but there is no lighting at night (after 11pm or midnight). Stakeholders interviewed in both sites do not anticipate further needs for lighting, but it is unclear whether or to what extent local women and girls and diverse groups were asked about additional lighting needs. Meanwhile, in Project 2, the Council were aware of issues around women's and girls' safety. They installed solar studs, which are cheaper, instead of more permanent overhead lighting. Concerns around inadequate lighting and women's safety persist.

Accessibility

Accessibility was a key consideration in the design and delivery of all three active travel paths, which stakeholders attributed to Sustrans' requirement that the paths be accessible for all ages and abilities. Only one case study conducted an accessibility audit, which happened when the project was completed and before it officially opened to the public. Two wheelchair users participated in the audit and praised the project. They also pointed out several areas for improvement, which the delivery team acted on. A stakeholder who worked on that project admitted that accessibility and inclusive design issues were relatively new to him, and it was a valuable learning experience to conduct the accessibility audit.

Project 1 was similarly built with accessibility in mind, particularly to enable access to a war memorial along the path, and further improvements are underway. The distillery has volunteered to install benches on the path so that there are places for people to stop, sit and rest. Benches have been donated by local people who are working with the distillery to decide where they should be placed. Accessibility audits are good practice and, in this case, can help identify the number, frequency and location of benches on active travel paths. They should be conducted more routinely before and after active travel projects are completed.

Affordability

All three case studies show that there is high potential of active travel infrastructure to reduce transport costs for people with low or no incomes. In Project 1, distillery staff, some of whom are shift workers, have used the active travel path for their work commutes. Stakeholders

sustrans

also felt the path could potentially serve as a more affordable way for people working in the tourism industry to commute. To maximise this potential, the voluntary group can engage with low wage workers and people on lower incomes for future active travel projects.

Given the high levels of deprivation and poorer health outcomes in the town where Project 2 is, relative to national averages, there is huge potential for the active travel link to help local people reduce travel time and costs, as well as increase physical activity levels. However, local residents do not feel the path is practical for everyday journeys because in its current stage, the path does not lead to many services or shops. The cost of purchasing a cycle, as well as perceptions that cycling is elitist and not for 'people like me,' are likely to be more significant barriers for local people. This underscores the need for more social infrastructure for cycling, like a cycle lending library that provides low- or no-cost access to cycles.

Considerations of affordability are especially relevant for Projects 2 and 3, as they are situated within wider regeneration projects. Regeneration projects raise questions around who will benefit from new infrastructure, housing and amenities, and at whose expense. In urban areas, increasing evidence highlights the role of active travel infrastructure along with other green space projects in catalysing gentrification by increasing property values in the immediate area, therefore displacing poorer residents to attract more affluent ones (Anguelovski et al., 2019; Black and Richards, 2020; Hoffman, 2016; Stehlin, 2019).

As such, Projects 2 and 3 raise critical questions around for whom is new active travel infrastructure? What assurances are in place so that the benefits of new active travel infrastructure will be distributed fairly and serve the needs of more vulnerable groups? How can new active travel projects be inclusive and support local economic development? This research highlights how gender budgeting is a useful tool to address these issues.

Monitoring and evaluation

The absence of sex-disaggregated data and other intersectional data is a barrier to monitoring the gender impacts of active travel paths. There was no baseline and follow-up monitoring data for Project 1. While there was baseline data for Project 3 and both baseline and follow-up monitoring data for Project 2, the small and relatively homogenous sample of RUIS respondents made it difficult to do any meaningful intersectional analysis. This has three implications for future data collection and monitoring and evaluation processes.

Firstly, as previously mentioned, it is important to invest the necessary time, resources and skills to not only collect intersectional data, but also to analyse it in a meaningful way to understand differences among different groups. Funders must recognise and support this need. Secondly, interviews with stakeholders across case studies suggest a need for the

sus**trans**

monitoring and evaluation process to include more community engagement, so that local people can provide input on whether, how and to what extent the paths serve their needs and how they can be improved. This can include partnerships local community organisations to carry out ride-along's and walk-along's with local people, for example.

Finally, EQIAs should be reviewed as part of the monitoring and evaluation process to check for unintended impacts, both positive and negative. Evaluation evidence should also inform EQIAs. While community groups are unlikely to conduct formal EQIAs, all public bodies receiving active travel funding have a duty under the Public Sector Equality Duty to conduct these assessments, proportionate to the scale of the funding. Where assessments have not be conducted, the monitoring and evaluation should consider assumptions about equalities impacts of the project made at the outset and unintended impacts that may have come about, along with gender safety audits and accessibility audits.

Recommendations

The following are nine recommendations for Transport Scotland, Sustrans, local authorities, relevant public bodies and community groups to work towards the implementation of gender budgeting in future Places for Everyone and other active travel investments:

Establish an explicit gender equality goal.

Sustrans and Transport Scotland should discuss, agree and establish a clear gender equality goal to explain why it is important to tackle gender and other inequalities in active travel. This would build on the Active Travel Framework's strategic objective to reduce inequalities by establishing gender equality as a strategic priority and to raise ambition within the organisation and among partners. As the funder and the administrator of funding, Transport Scotland and Sustrans have the power to put gender on the agenda and influence how local authorities and community groups approach active travel funding applications and projects.

For example, Sustrans and Transport Scotland could also consider a goal to dedicate a certain proportion of active travel infrastructure investment to care-related active travel routes (e.g. to schools, hospitals, GPs, public services, shopping areas), so that new active travel infrastructure can better serve women's travel needs. This could build on existing Transport Scotland projects that funded safer routes to school and NHS workplace projects.

sus**trans**

Require funding applicants to address how their project will contribute to this gender equality goal.

Sustrans appears to have been successful in making funding applicants prioritise accessibility issues. It therefore seems plausible that if Sustrans were to require funding applicants to discuss how active travel projects will contribute to gender equality in active travel and broader society, local authorities and community groups would simply have to dedicate time and resources to consider these issues, which would work alongside the existing Active Travel Framework. For example, if the gender equality goal were gender parity in cycling in Scottish cities, then funding applicants would have to discuss how their project would get more women and girls cycling.

Increase capacity to apply gender expertise and support community groups and local authorities applying for funding to do the same.

Gender expertise is both a pre-condition for and essential component of gender budgeting. Sustrans and Transport Scotland should assess current levels of gender expertise within Sustrans, Transport Scotland and Scottish local authorities. This includes identifying gaps in gender expertise and barriers to applying gender expertise to improve policy outcomes. This understanding can inform initiatives to build capacity for gender expertise, for instance through investing in intersectional data collection and analysis; increased training, particularly for staff managing active travel funding; recruiting people with gender expertise; and partnering with expert stakeholder groups, such as the Scottish Women's Budget Group.

If funding applicants will be required to address how their active travel project will contribute to gender equality, it is important that Sustrans and/or Transport Scotland can support applicants to develop gender expertise, again, either through training or partnerships with external experts. Supporting community groups to develop gender expertise could involve a short video output, paper guide or introductory session to gender budgeting to alert them to key questions to consider when developing active travel projects. Local authorities should have internal expertise that should be integrated into active travel projects to consider equalities issues. Teams from local authorities working on bids should also be encouraged to access training either in-house or through support from Sustrans and/or Transport Scotland. Expert stakeholder groups, like the Scottish Women's Budget Group, can also be a resource to draw on.

sustrans

Use the framework for gender budgeting in active travel infrastructure investment.

The six criteria and questions for consideration set out in the framework should sit alongside the Active Travel Outcomes Framework and serve as a starting point to guide discussion around gender equal active travel funding decisions. It can be used as an internal document to review funding applications. It can also be used to structure discussions with shortlisted or successful applicants to ensure that considerations around gender equality and inclusion are built into the project from the beginning. The gender budgeting framework is a living document that can and should evolve as it gets used more routinely, so that it can be most useful to practitioners and decision-makers.

Collect and analyse intersectional data.

Successful implementation of gender budgeting requires sex-disaggregated data at a minimum and if/where possible, data disaggregated by other sociodemographic categories, like socioeconomic status, ethnicity, age, disability, gender identity and sexual orientation. As such, it is important to invest the necessary time, skills and resources to collect and analyse intersectional data to understand how different groups of people are using or not using active travel infrastructure. Intersectional data is currently collected in the Route User Intercept Surveys (RUIS) but is not routinely analysed.

As a starting point, there should be an analysis of demographic composition of the local area to identify any vulnerable groups that could benefit more from active travel and/or underrepresented groups in active travel. This would help define exactly which groups to focus data collection and analysis on, as it is likely that not every single group would be targeted or relevant in every area or project. The aim of intersectional data collection and analysis should be removing obstacles to active travel for these vulnerable or underrepresented groups and actively engaging with them to encourage more active travel.

Conduct Equality Impact Assessments, gender safety audits and accessibility audits before and after active travel projects are completed.

Equality Impact Assessments, gender safety audits and accessibility audits are participatory ways to understand how diverse groups experience public space and active travel paths. They engage diverse groups of people who may be typically underrepresented in community engagement processes, like women and girls, disabled people, older people and people from ethnic minority backgrounds, and amplify their voices and experiences in data collection, design and decision-making processes. In addition to being a proactive way to ensure that

sus**trans**

new active travel infrastructure is safe, accessible and inclusive, the process of doing and the insights yielded from Equality Impact Assessments, gender safety audits and accessibility audits can help Transport Scotland and Sustrans continue to develop and apply gender expertise.

Partner with community organisations to do meaningful engagement with local people.

This recommendation echoes one of the five outcomes in the Active Travel Outcomes Framework – delivery of walking, cycling and wheeling is promoted and supported by a range of partners. It is important to partner with local organisations that are already known and trusted by, as well as embedded in communities where active travel infrastructure will be built. This will enable engagement with a wider range of people, particularly those who are underrepresented in typical engagement processes. Partnerships with community organisations can also involve creative and mobile methods of engagement, such as walk-along's and ride-along's, which can also provide valuable data on people's experiences of walking, wheeling and cycling. Partnerships with local Citizens Advice Bureaus and other local service providers can be a way to explore the potential of using active travel infrastructure to bring mobile services to people.

Develop a strategy to ensure inclusive community engagement with diverse groups.

Ideally, the decision-making, design and delivery team for active travel projects should be diverse, with more women, LGBTQIA people, people from ethnic minority backgrounds and disabled people represented. However, this may be difficult and take time to achieve. In the meantime, Sustrans can require funding applicants to describe the diversity of the team applying for funding and leading active travel projects and discuss their strategy to ensure that diverse perspectives are considered. This may include, for example, partnerships with local women's and equalities organisations.

Fund both physical and social infrastructure for cycling.

Social infrastructure for cycling – education, outreach and peer support programmes – complements physical infrastructure for cycling and plays a vital role in encouraging more diverse people to cycle. Sustrans and Transport Scotland should commit active travel funding for both physical and social infrastructure, given that the Active Travel Framework acknowledges the need for educational and behaviour change programmes alongside physical infrastructure. This would make local authorities and community groups applying for

sustrans

funding to consider the types of cycle programmes they will provide and partner organisations that they will need to deliver them.

sus**trans**

Appendix I: Case Study 1

This scheme opened in October 2021 and offers a safe 2.54-kilometre active travel path between two villages on an island. Previously, the only link between the two villages was a busy 60mph A road heavily used by HGVs, without any walking, wheeling, or cycling facilities. One village is a picturesque village that attracts a lot of tourism. The other village has a distillery, which is the largest private employer on the island, with over 70 employees. A local network of volunteers advocating for safe access to the countryside, led the fundraising for and design/planning of the project.

Local context

The total population of the island is around 3,000 and tens of thousands of tourists come every year. The top sources of economic activity are agriculture, the whisky industry, fishing and tourism. Relative to other inhabited islands in Scotland, a higher proportion of people on this island are employed in the manufacturing sector, which reflects the significance of the whisky industry (National Records of Scotland, 2015). The island's geographic profile and population dispersion can make connectivity and access to key services challenging.

Depopulation is an issue across Scotland's islands, largely driven by the lack of employment, training and higher education opportunities, childcare options that fit with residents' working patterns, as well as affordable housing (Scottish Government, 2021b). The cost of transport on Scottish islands is much higher, relative to income, compared to the rest of Scotland and public transport is often inadequate to meet people's needs (Jacobs and Aecom, 2021). Just over a third of island residents agree that their local roads, paths and pavements are in good condition, and a quarter of island residents agree that their local roads and paths are safe for cycling, and safe and accessible for wheelchairs and prams (Scottish Government, 2021b).

Data sources

Baseline data provided by Sustrans included:

— Volume, speed and class of vehicles on the A road, March 2019;

— Pedestrian and cyclist counts (average daily number, highest daily number, maximum number per hour) on the A road, 23-28, March 2019.

As this data was not disaggregated by sex or other sociodemographic characteristics, it was of limited use for gender analysis. The follow-up monitoring data had not yet been analysed at the time of this research.

sus**trans**

Three local stakeholders, all white men who were involved to various degrees in designing and delivering the active travel project, were interviewed.

Engagement

A group of 6-8 retired male professionals led the community engagement, fundraising and design process for the active travel project. They started the community engagement process by sharing proposed plans in the fortnightly local newspaper and inviting feedback. The community engagement was 'quite extensive a few years ago, with public meetings, visiting schools and talking to people en route, visiting shops and so on' (interview, 19/07/2022). This also involved working with two local walking groups, one for the elderly, and another led by the church.

Primary school children in one of the villages were actively engaged, as they made posters about the path, suggested the name for the path and were at the opening ceremony. This was felt to be important, so that children would be interested in and have a sense of ownership over the path:

> 'We made sure that on the day of the opening ceremonies the local primary school kids came, they walked past, they cut the ribbon and then they were the first people to officially walk the path. And because you can then take an interest in it, invested interest in the path and yeah, you know, they're the next generation who will hopefully, you know, adopt the path' (interview, 28/07/2022).

The community engagement was very thorough, largely because the members of the voluntary group have more free time, are very active in community affairs and understand the importance of engaging with local people. They felt that local people:

> 'bring real value to the group because of their local knowledge, and it helps networking with the local population since they know the local topography and they can help the planners who are essentially mainland people who come over to take drone views and so on. We're building the plans and the detailed design and construction plans. Local people are very important' (interview, 19/07/2022).

Another contributing factor to the thorough community engagement was that the distillery sponsored the project early on because of its perceived benefit to the distillery and the local community. As one stakeholder explained:

> 'So, I myself, along with some other locals, had been discussing the opportunity or the potential opportunity to do something to link up the two villages. We knew

sustrans

there's a lot of people walking on the road and people cycling between the villages and because the formation of the road is, you know, deemed as dangerous, you know, people are walking when it's either dark or rounding the corners. And so, I live in the village…I work for the distillery, so it was obviously a project close to the village I live in and it was something that was helping the distillery as well because we get a lot of visitors…they'll often walk or cycle along to the distillery to visit. So, from early on, the distillery got behind it and supported it' (interview, 28/07/2022).

This stakeholder described the project as a community-led project in an already closely knit community, which made it relatively easy to engage with local people and get them to 'buy into it and feel a sense of ownership of the path' (interview, 28/07/2022). The voluntary group 'keep local people informed and kept local people involved and had public sessions in the village hall' (interview, 26/07/2022) and have a good working relationship with Council.

One member of the group described it as:

'...interested, retired professionals who got more time, and all the time and effort is voluntary. And we all bring different skills and experience to the fore. We have two solicitors, distillery manager, community centre manager, a retired naval captain and an IT consultant. We don't have any ladies on… So, it's a matter of just a small group punching way above its weight to get things done' (interview, 19/07/2022).

The tremendous efforts and success of the group in increasing active travel infrastructure on the island are admirable. At the same time, it is important to note that the voluntary group represent a more privileged cohort of residents who have the free time, knowledge and skills to lead active travel projects on the island. The lack of diversity (in terms of age, gender, ethnicity, employment status and socioeconomic status) within the group suggests the need for a strategy to ensure diverse perspectives are considered.

For example, a member of the group said, 'gender equality has not been a problem at all. We haven't recognised it, but it's not been ever flagged up as a problem for the community. It's a very friendly community, you know' (interview, 19/07/2022). While a group of 6-8 men may feel that gender equality is not a problem, it is possible that women on the island may feel differently. This is why a strategy for engagement with diverse groups is important, to help ensure that diverse perspectives are considered.

Engagement with diverse groups may be particularly challenging on islands. For instance, island residents may not feel safe or supported to disclose their gender identity within a small

sustrans

community. A stakeholder said, 'We have had contact with a transgender person to ask their opinion about it [the path]. Uh, I just welcomed it. We didn't take it any further. They said it's great, just like anybody else, that it's good it's there' (interview, 19/07/2022). Given the dearth of research on LGBTQIA people's active travel behaviour and experiences, it is likely that LGBTQIA people have different experiences and needs that are not met by current active travel infrastructure (Lam, 2022; McCullough et al., 2019). Those leading active travel projects should be open to this possibility and consider different groups' needs.

It is unknown if an EQIA had been conducted at any stage of the project. There was no duty to conduct an EQIA because the project was led by a community group, but a stakeholder said it was not necessary because the path is:

> '...all inclusive. It's been a tremendous success. And it's evidenced by the people, the number of people using it…Since it's been completed, it's extremely well used both by locals and visitors alike. When I say locals and visitors, I mean, people of all ages and gender and ability. So, yeah, it's opened there for all and is used by all, by all' (interview, 26/07/2022).

While it is great that many people use the path, it may not necessarily be the case that there is a diverse range of people walking, wheeling and cycling. Collecting sex- and other disaggregated data on path users would be an effective way to understand not just the volumes of people using the path, but also the types of people using the path. Funders can make collecting diversity data and conducting EQIAs explicit requirements for projects led by community groups and support them to do so.

Infrastructure

Stakeholders interviewed were confident that the project serves tourists and local people alike. Tourists benefit from a traffic-free active travel route and more local people use the path for leisure and other reasons. The distillery has seen more footfall since the path has opened. One stakeholder said:

> 'Because I stay local, I can see that the path is well used. You know, there's a lot of local people either walking their dogs, or when I walk my dog, I pass a lot of people walking the dog. You see children cycling between the villages. And you see people commuting to work. And at this time of year, there's a lot of tourists using the path every day, walking back and forth between the villages' (interview, 28/07/2022).

sus**trans**

There have been more people using the path to walk to and from the church and children use it to get to and from school. Previously, the village primary school had to do a risk assessment before they could take children out along the road and down to the shore, but the active travel path enables them to get out and walk safely without having to do a risk assessment. One stakeholder said:

> 'What is a great delight to me is you do see local people, all ages, grandmas, mums and children now going out as groups and using the paths walking. And you also see young ones on the bicycle going in a family group now, before they couldn't do that. So that was a great help during COVID because people have easy access to getting out for a safe walk' (interview, 19/07/2022).

Another stakeholder suspected that there are a sizeable number of commuting journeys:

> 'I'm aware that people who do use it go to work. I mean, the employers in the area… there's a distillery, so a number of people cycle to work using that path whereas before they would have used their car or something. Probably that's the biggest use, for people commuting to work' (interview, 26/07/2022).

Some staff at distillery use the path for their work commutes – 'There is a number of staff on our cycle to work scheme, they obviously will come along that route. We also know people who will walk to work and certainly in the summer months when the days are longer and the weather's more pleasant, it's easier to walk' (interview, 28/07/2022). Since the path has opened, the distillery has been helping to solicit donations for benches and install them along the path, so that people can stop and sit down at various points:

> 'Since the path's been completed, there's been a number of people wanting to, saying we need like benches, picnic benches or just, you know, seating benches at a viewpoint and then on the path to try and allow, you know, rest points. And we worked with [the voluntary group] to try and work on a plan that we would only use like recyclable plastic benches and stuff that was low maintenance and putting them in certain places. A lot of the benches were delivered to the distillery and then we distribute them onto the path and set them up and look after them… This is again in consultation with some of the people who were donating it [the benches], so consultation with them where they thought they could go and with people thinking where the ideal spot would be for the benches' (interview, 28/07/2022).

sus**trans**

Benches are a welcome addition and it is impressive that the distillery were able to mobilise successfully and quickly to respond to requests for benches. The only suggestion to improve the path was to create more circular routes:

> '…obviously the path gets you from one village to the next but if you're walking you don't always need to go from one to the next. So, if it was almost like a circular route right around the coast, you know, so you could walk it, but it would also then link up back around to the coastline or something that would be something that would benefit people, you know, so it would be more of a circular route rather than just a straight line' (interview, 28/07/2022).

This is an interesting point that echoes critiques of radial transport planning in cities, which facilitate longer and linear journeys from suburbs into the city centre while ignoring local, orbital journeys. It also highlights a need for active travel infrastructure to be more joined up and function as a holistic network. Part of the impetus for the active travel path was to increase active travel on the north side of the island, especially as there is an active travel path on the south side of the island. Those two flagship projects exist in isolation, as they are not joined up and there are no other major active travel routes on the island.

Health and Safety

The distillery introduced a walking challenge to promote staff health and wellbeing during the COVID-19 pandemic, which has encouraged more distillery workers to walk along the path for leisure or exercise:

> 'We knew people were working from home and people were not really doing as much exercise because COVID, so we implemented a kind of walking challenge where we were encouraging staff to go and hit milestones, to do X amount of miles a month and if they reached these milestones we'd donate money to charity, so it was starting to get people more active and we knew a lot of staff were taking their lunch breaks and going to walk along the path, taking the path to get a leisurely walk at lunchtime and stuff' (interview, 28/07/2022).

One of the biggest achievements of the project has been increasing road safety – 'Rather than people walking on the main carriageway between the two villages that make up the road, so that in itself was good safety-wise… Because of the path, people are walking more, it's good for wellbeing and people's health' (interview, 26/07/2022). The road safety benefits are important, it is also important to take into account how feelings of personal safety can vary for different groups.

sus**trans**

Under a quarter of island residents in this local authority area report feeling safe using their local paths (Scottish Government, 2021b). This raises questions around how safe women and girls feel on this active travel path. A stakeholder admitted that the path is not well lit:

'At the start and the end of the path, you know, where you start and where you finish is lit, but the middle of the path isn't, there's no street lighting. But I think the locals prefer it that way because, you know, you don't really want light pollution. You know, along that way, if anybody was to use it at night, they would probably just use a torch, a headtorch, and it'd be fine. I've done it myself, you know, I'd walk it at night with the dog and I just put a headtorch on and it's absolutely fine' (interview, 28/07/2022).

Concerns around light pollution in the countryside may be valid, but some people, like women and girls, disabled people and tourists who are unfamiliar with the area, may feel that more lighting is necessary. One stakeholder reflected that there were lengthy discussions around lighting:

'There has been talk about illuminating the path for safety reasons, particularly around some of the villages for female safety, but we're in a very rural area, there is no real problem. We didn't feel that it was appropriate to put in illumination in virgin countryside as it were… This subject has been raised once since 2013. And we had to address that quite a bit for Sustrans. And we also sought advice from a transgender person I mentioned… But we haven't, we're not ready to build that on that path, and if we did have to do it, I would have to find funding to do it… But we're very rural. So, these paths traverse virgin agricultural land. So, we've just got open fields…It is not a city or town or anything like that' (interview, 19/07/2022).

It is unclear whether and the extent to which women and girls were included in discussions and decisions around lighting and safety. Unlit paths in any setting – urban or rural – can make women and girls feel less safe, particularly when traveling alone at night or in the winter months when there are fewer daylight hours. It would be interesting to find out more about how concerns around lighting and women's safety were addressed or revisited between when they were first raised in 2013 and when the path opened in 2021.

A stakeholder from the local authority was similarly unaware of any issues around women's safety and stressed that the place '…is an island and people, including children, are used to being out on their own after dark and yeah, there's no, absolutely no safety issues whatsoever' (interview, 26/07/2022). There seemed to be a widespread perception among the white male stakeholders interviewed that an active travel path in 'virgin agricultural land'

Gender budgeting in active travel in Scotland
08/03/2024

sus**trans**

on an island is inherently safer. This raises questions around whether the path meets the personal safety needs of women and girls.

Gendered perceptions and experiences of safety, as well as other dimensions of personal safety, is an area that active travel planners and policymakers should try to better understand and address in their work. One stakeholder said the voluntary group 'had to address that [lighting and accessibility] quite a bit for Sustrans' (interview, 19/07/2022), although it is unclear what subsequent actions were undertaken. However, this implies that as the funder, Sustrans can place higher expectations and requirements on funding applicants to consider issues around gender and safety.

Accessibility

Accessibility was a key part of the design and planning of the project because the voluntary group had to comply with Sustrans' requirements:

> 'Basically, we were under the guidance of Sustrans. They have very advanced planning demands, regulations for, if you want a dual-purpose pathway and you want funding, you've got to stick to their rules. It has to be wheelchair accessible, so they're built to Sustrans specifications' (interview, 19/07/2022).

Stakeholders were confident that the path is easily accessible for disabled people because the path is well-signed and smoothly surfaced:

> 'It's very well constructed, it's all tarmacked, it's very easy and even crossing the road, it's well marked out and there's warning signs for drivers approaching that there's pedestrians crossing. So, it's well signposted, I think all the safety and accessibility procedures are in place… It's more or less perfect' (interview, 26/07/2022).

Another stakeholder recalled specific efforts made to ensure the war memorial along the path was accessible, especially for the elderly and disabled people who visited the memorial at the remembrance service in November:

> 'It was difficult before the path was built for elderly people to get to the war memorial and on the service day. So, they generally had to stand on the road, on the main road, because there was no access and there was no steps, so it wasn't safe. So that was one of the key features in designing the path, was to make steps and a ramp for wheelchairs so that people can access the war memorial all year round' (interview, 28/07/2022).

sus**trans**

He also mentioned that there were bollards on the path to prevent vehicles from driving through, which was a key safety feature, while enabling wheelchairs, cycles and prams to get through. It was observed that disabled people with mobility scooters 'can go quite happily [on the path], whereas they couldn't go along the roads,' and they are 'more active than they've been for years because they've got a safe, safe path to go along. And it's good to see them out and about' (interview, 19/07/2022).

The voluntary group seem to have been made aware that visually impaired people might struggle with access. As a stakeholder explained, 'people with visual problems, you know, can't see the paths and signs and roads and all that, that's just been drawn to my attention. But we haven't had anybody saying there's a problem because we can't see or whatever' (interview, 19/07/2022).

This example demonstrates the relevance of conducting EQIAs before projects are built. EQIAs can help identify and prevent problems before they arise. This can benefit more vulnerable groups by making them feel recognised because they would otherwise have to speak up about barriers they face. Sometimes people do not speak up because they may not feel safe or supported to disclose certain issues and/or they fear they may not be listened to.

Affordability

The project has supported the local economy by increasing tourism. Tourist destinations, like the distillery and a museum, have experienced increased footfall since the path opened. A local resident apparently put camping pods on his land because the path guides more people in that direction.

It is unclear whether or to what extent the path has benefited people in low-income households – 'All I can say is that the people who use the countryside, for rambling or part of the badminton club or the bowling club or whatever it is. Perhaps the lower socioeconomic groups of people do not use those things anyway' (interview, 19/07/2022).

It is also unclear whether the path has reduced transport costs or travel time for distillery workers or other seasonal workers in the tourism industry. To encourage more staff to take advantage of the cycle to work scheme and to promote cycling as an affordable mode of transport, the distillery partnered with a local organisation that did free cycle repair workshops once a year at the distillery:

> 'We haven't done it for two years because COVID for obvious reasons, but they were looking to basically try and encourage people to get cycling, so they would hold the workshop every year where people would take their bikes and get a

health check, MOT, and part of that was a demonstration, like e-bikes and stuff like that… It's potentially something to be picked up again because it was a good way to get people to think about cycling to work, if they could get their bike serviced, you know' (interview, 28/07/2022).

The cycle to work scheme and free cycle maintenance and/or repair are both ways to reduce cost as a barrier to cycling for distillery workers. However, the cycle to work scheme excludes second-hand cycles that may be more affordable. It is also unclear how many other local employers offer the cycle to work scheme.

The distillery started gathering data on staff commutes two or three years ago, but there are no notable trends in terms of gender, age and commuting patterns. This could be because commuting data is not disaggregated by sex or other sociodemographic characteristics. It could also be because the distillery might not have the capacity or resources to analyse any disaggregated data they collect. A representative from the distillery explained some trends they saw in their staff commuting patterns:

'The obvious trends are the people who are driving are people who are farther away and maybe living in more remote places or maybe have children to collect. And I think, you know, people with less commitments where they don't have children, or they have the time to walk to work and walk home from work or they're cycling or cycle to work and stuff. We've had an uptake in the cycle to work scheme, so we've seen more people, you know, the uptick in people purchasing bikes and cycling to work… we have a number of staff who bought e-bikes in the cycle to work scheme. Obviously, the costs of electric bike is more expensive, but with the tax break it is actually, a bit more manageable. So, you know, we have maybe four or five people who bought e-bikes which seem to be quite effective' (interview, 28/07/2022).

The recognition that childcare can be a barrier to active travel reflects a need for transport systems to better serve those with caring responsibilities.

Monitoring and Evaluation

The absence of sex- and other disaggregated baseline data, as well as follow-up monitoring data hindered gender analysis in this case study. Baseline data from Sustrans shows that the highest daily total of pedestrians was 19 and the highest daily total of cyclists was 10. Figure 1, below, illustrates the average daily pedestrians and cyclists on weekdays and weekends in March 2019.

sus**trans**

Figure 1: Average daily pedestrians and cyclists
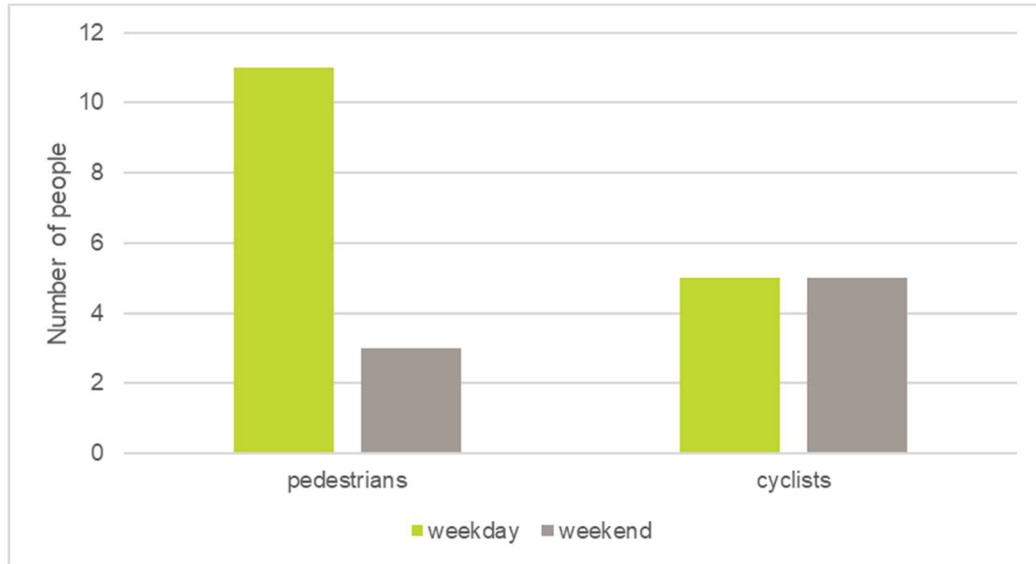
However, this sample is very small and does not give an indication of who exactly walked and cycled. Ideally, there would have been a larger sample and sex-disaggregated data, at a minimum, to inform the monitoring and evaluation process.

In addition, conducting an accessibility audit and gender safety audits should be part of the monitoring and evaluation process. Since benches are a relatively new addition to the path, the number and placement of benches should be monitored to ensure the path can be even more accessible and inclusive, with enough places to stop and rest along the way. The issue of lighting and women's and girls' safety should be revisited, especially because the voluntary group could likely mobilise quickly and effectively to install more lighting if it were requested, as they did with benches.

Finally, there is an opportunity to partner with the distillery and other local businesses to evaluate whether, how and to what extent the path meets the needs of their workers. The distillery is already trying to decarbonise their staff commutes, and the data they have collected on staff commutes could be useful in analysing how well the path serves workers on their daily commutes or lunchtime walks.

Conclusion

One of the strengths of Case Study 1 is how extensive the community engagement has been and the high levels of support from local people. This reflects how known and trusted the

sus**trans**

voluntary group is in the local area. At the same time, this is a good case study of the delivery of active travel projects in the 'hollow state,' as the voluntary groups exemplifies a highly successful and mobilised cohort of 'active citizens' to deliver active travel projects in conjunction with local authorities and other organisations (Aldred, 2012). Since the members are a homogenous group of older, middle-class, able-bodied white men, they should develop a strategy to ensure that diverse perspectives will be incorporated in future active travel projects.

Active travel projects delivered in the hollow state also encounter a challenge when it comes to maintenance of paths after completion. In this case, the distillery volunteered to maintain the path by committing a certain number of staff hours to do 'just simple maintenance, light maintenance, like weeding and looking after and keeping it tidy, if there's any, like gates and bridges that maybe need painting or repair' (interview, 28/07/2022). The distillery has also overseen the collection and installation of benches along the path. It is fortunate that there is a dedicated group of local people who are very much invested in the path. However, this may not necessarily be the case across all Scottish islands. Again, when communities are left to fill in the gaps in transport or other public service provision, the results can be patchy, with success largely dependent on the presence of a privileged cohort.

sus**trans**

Appendix II: Case Study 2

Project 2 is a key piece of active travel infrastructure between a town and a significant regeneration site. The first phase of the active travel link has been completed, displacing journeys from a busy A road and connecting communities with several local destinations, including a community centre and a pump track. It includes a new multi-user safe and functional path through the woods. The second phase of the link was planned to extend down towards the regeneration site but has been indefinitely postponed.

Local context

The town has a population of about 30,000 and has the highest rates of adults with long-term health conditions in the local authority area. 71% of the town's population live within the first or second most deprived quintiles in Scotland. The active travel link traverses a part of the town that has the highest proportion of income and employment deprived people, and parts of that area rank within the 15% most deprived areas of Scotland. This area also has the highest proportions of young mothers (aged 19 and under), alcohol-related hospital stays and multiple emergency hospitalisations in the town.

Meanwhile, the regeneration site is 1,200 acres and previously was one of the largest derelict sites in Europe. The development started in 2006 and to date there are approximately 1,000 new homes, a sports facility, a college, a pub, as well as a new park. Future phases of development will include more housing, schools, parks, shops and community spaces.

The local authority area has among the highest populations of all 32 local authority areas in Scotland and a rapidly growing ageing population. There are more women than men in the area, consistent with Scotland overall. However, life expectancy for women and men in the council area is lower than the Scotland average (79.2 vs. 81 and 74.5 vs. 76.8, respectively). There is also a smaller proportion of people in managerial and professional occupations, compared to the Scotland average (36% vs. 48%, respectively) (Nomis, n.d.).

Data sources

Baseline data provided by Sustrans included:

— Annual Usage Estimate, 2019;

— Route User Intercept Survey (RUIS) from April/May 2019;

— Travel Network Survey, 2019.

sus**trans**

Follow-up monitoring data provided by Sustrans included:

— Annual Usage Estimate, 2022;

— Route User Intercept Survey (RUIS) from April 2022;

— Travel Network Survey, 2022.

— Summary of interviews with 12 stakeholders (nine local residents and three local people who worked on the project);

— Transcripts of interviews with three local people who worked on the project.

Four local stakeholders were interviewed, three white men and a white woman.

Engagement

All three stakeholders who were involved in the project interviewed by Sustrans emphasised the importance of active and meaningful community engagement, with one stakeholder saying:

> '…it's part of my job then to make sure I'm doing what I can to speak to local people about it and get people involved, which is something I've seen in the past maybe doesn't necessarily happen, and I do think it is very important because then that means that if local community are involved in planning it then it's far more likely to be used and not abused, and they'll feel a bit of ownership over it as well.'

Despite the consensus that community engagement is essential, most residents do not feel there has been quality and in-depth engagement. One of the local stakeholders who worked on the project told Sustrans that there was an active community engagement process between 2016-2018, largely through the Community Council. Meanwhile, residents that Sustrans interviewed felt that there was very little public engagement around the path and suggested working more closely with local charities – 'Use the people that are already there,…who are already out there dealing with the community groups.'

A stakeholder described local government consultation as 'usually done as a tick the box exercise' that often fails to make a difference for local people (interview, 27/07/2022). He continued, 'I think the last two years, two and a half years, illustrated that online only consultation is great. But we've also got to go to, you know, seldom heard voices and seldom heard voices usually tend to be the elderly, disabled, BAME, LGBTQ+ and women' (interview, 27/07/2022). Most of the Council's online consultation during the pandemic involved Survey Monkey, Facebook or Twitter. He felt that better approach would be what

sus**trans**

residents suggested, more partnership working with local charities who are known and trusted by residents:

> 'It's not easy. There's no one answer. There's no easy answer. But we have to do it because we see it in society, that people just don't feel listened to and they feel so disconnected from decision-making and involvement with what's going on around them…Everybody's got a voice and it's important that be they charities or organisations like Sustrans or people in elected office themselves do everything we can to engage the public' (interview, 27/07/2022).

According to another local stakeholder, the biggest barrier to meaningful community engagement with diverse groups is that it requires more time and effort:

> 'A lot of the consultations work very much the same way, which ultimately, someone came in from outside, they maybe do a couple of events. And ultimately out of these events, you will get the same faces go to everything. You won't be getting the people who potentially you actually want to reach… what I've noticed over the last 12 years or so is that actually you'll find people who are going in and trying to find answers quickly, but then what they'll find is the wrong answers because they just want to get something quick, as opposed to take the time to get the right answers. What I have done in the past, and what I feel works best is, actually, I suppose it's the old school way of doing it as actually going out and speaking to people… there's no quick way of doing it. If you really want the results, if you want the correct answers, then you need to actually do the legwork and actually, ultimately go door to door and actually speak to people…' (interview, 26/07/2022).

He emphasised that in an area of high deprivation, truly inclusive community engagement will necessarily take more time because people, especially young people, lack the confidence and capacity to participate in engagement processes:

> 'They're not used to being engaged in that way. If you ask them, what would you like to see in the area? The first thing that comes to their head is only McDonald's. If you ask them, how would you feel about a new park? They would say, sure, yeah, new park is fine. How would you feel about a football pitch? Yeah, sure, that sounds good. Like, they're not actually at the point where they're like, actually, think about it, if you don't have space to go out, okay, so this is an area, what do I actually really think will work, go out and have a look around, that kind of thing' (interview, 26/07/2022).

sus**trans**

He hopes that the community centre can become a space to help build local people's capacity to participate more in community engagement and decision-making processes, so they feel that they are doing things, rather than just having things done to them.

While EQIAs would be a good way to engage with more diverse groups of people and ensure that projects respond to the needs of marginalised groups, no EQIA for this project was publicly available or made available during the course of this review. A stakeholder explained: 'it's not a process that's seen as having any value. And they're the experts you know, so of course it's just about building a road, a path, and you don't know who to talk to… It's a culture, it's, there's no impact on the equality here' (interview, 22/07/2022).

This reflects the technocratic paradigm in transport planning, in which 'social' issues like gender, diversity and inclusion are perceived as irrelevant since 'it's just about building a road, a path' (interview, 22/07/2022). If infrastructure is to fulfil people's needs, then 'social' issues must be considered as relevant, as this stakeholder elaborates:

> 'I think the approach is always very generic. It's always very general. You know, the people that will be using this path are looked on as a homogenous group…And the people devising these strategies and plans, they don't have an opinion on equality, what's this got to do with equality? It's just tar and you know, machines, what's that got to do with fairness? You know, they just have this completely blinkered view and don't go and ask people' (interview, 22/07/2022).

Infrastructure

Analysis of baseline and follow-up RUIS data shows that since the path has been completed, there has been a slight increase in users who are in part-time employment, looking after the home / family, unemployed / sick leave and retired. There has also been a slight increase in overall people walking and a slight decrease in overall people cycling on the path. The gender gap in cycling has halved since the path's completion, which is a successful outcome. However, men are still four times as likely to cycle as women. There is slightly more gender parity in walking, as shown in Figure 2 below.

sus**trans**

Figure 2: Gender split in people walking and cycling

	Baseline RUIS			Follow-up RUIS		
	Modal share	Women (including transgender women)	Men (incl. transgender men)	Modal share	Women (including transgender women)	Men (incl. transgender men)
Cycling	23%	11%	88%	21%	20%	80%
Walking	77%	23%	77%	79%	45%	55%

Follow-up RUIS data shows that most women using the route are between the ages of 25-54, while the largest proportion of men using the route are between the ages of 45-54 or 65+ (Figure 3).

Figure 3: Gender x Age of path users

Age group	% Women, incl. transgender women	% Men, incl. transgender men
16-24	0%	3%
25-34	26%	14%
35-44	26%	17%
45-54	26%	31%
55-64	5%	7%
65+	16%	28%

Since its completion, there has been an overall decrease in commuting journeys (8% in 2019 to 0% in 2022) and recreation journeys (87% in 2019 to 75% in 2022), but an overall increase in shopping journeys (0% in 2019 to 13% in 2022) and journeys to visit friends and family (3% in 2019 to 10% in 2022). The path is not used for commuting, education, escort to school or other escort journeys. Recreation, including dog walking, is the main trip purpose for all path users, with 84% of female respondents and 69% of male respondents using the path for recreation.

A comparison of baseline and follow-up RUIS data also indicates a huge increase in the proportion of people of all genders strongly agreeing or agreeing that the path: takes them straight to their destination; is the best transport option; the most convenient route; meets the needs of the community; and is fit for purpose. However, men expressed a higher level of

Gender budgeting in active travel in Scotland
08/03/2024

su**strans**

satisfaction with the path. 74% of women strongly agreed that the path meets the needs of the community, compared to 93% of men. Meanwhile, 58% of women strongly agreed that the path is fit for purpose, compared to 69% of men.

The three stakeholders who worked on the project that Sustrans interviewed previously agreed that the current active travel path provides useful connections and local people would benefit from an extension of the path up to the regeneration site. One stakeholder who was involved in the project described it as 'a terrific local project' and at a strategic level, 'obviously where we all want to be aiming for in terms of delivering active travel right across urban Scotland.' Meanwhile, residents interviewed by Sustrans had mixed views on the connectivity of the path, with one person describing it as a path with 'nothing at either end of it apart from a pump track,' and another saying that they would use the path to cycle to work if it joined up with the regeneration site.

It was felt that the path is currently used by many local people for recreational purposes but has more potential to serve people's everyday needs if it were joined up to more places – 'It's much more of a social route rather than a route to get to shops, possibly to get up to the health centre' (interview, 26/07/2022). However, there is also a risk that as the path gets extended and the new development progresses, it may disproportionately benefit middle-class people newer to the area who experience fewer barriers to active travel, unlike many local people experiencing deprivation for whom active travel is a low priority. A stakeholder explained:

> 'As it does get extended…, maybe we'll see that change to more of that typical kind of middle-class use. There's a lot of new housing being developed farther along in the area, and it will be, well, I'm hesitant to say middle class, but it's definitely people who aren't living in poverty, deprivation, who will be in those houses, who will then be more likely to be using the paths...A lot of the families we work with are ultimately just worried about money at the end of the day' (interview, 26/07/2022).

If new housing and active travel infrastructure are being built, what measures are in place to ensure things stay affordable for local people who already live there? How will existing residents benefit from new active travel and other infrastructure and amenities? These questions are crucial and 'have to be the first questions asked before we get to the design stage… and I would like to see a more active push towards people making sure that these questions are answered [by policymakers and planners]' (interview, 27/07/2022).

Issues around affordability need to be at the forefront, especially in an area of high deprivation that is near a massive regeneration site, otherwise there is a risk that things are

sustrans

only seen 'through the prism of the middle class' (interview, 27/07/2022). As a stakeholder elaborated:

> '…[This] is a very, very poor area in terms of its outcomes. Just because people don't have bikes or they don't walk a lot doesn't mean that they wouldn't, you know, they do use the local shops, they're very local minded. So, if they had that connection, because… [the regeneration site] it's very linked to middle class people because they'll use it, you know, if you take the kids out and stuff. So there has to be a discussion about how we help people…helping people with the household costs is critical in this country' (interview, 27/07/2022).

Given the high levels of deprivation in the local area, access to a cycle and knowledge of how to cycle are more likely to be significant barriers to cycling for local people. This highlights the need for social infrastructure for cycling, such as cycle education programmes, a cycle lending library with different types of cycles and social group rides. Organisations that deliver social infrastructure for cycling are essential because 'provision needs to be associated with outreach…to actually attract a cross-section of society' (interview, 29/07/2022). One stakeholder felt that cycling can be perceived as an elitist sport, associated with Tour de France and not a practical, everyday activity, which, again, underscores the importance of social infrastructure for cycling to help more diverse people feel that cycling is 'for them.'

There are many social and mental barriers that local people need to overcome before they can start to see the relevance of active travel in their daily lives:

> 'You know, I'm thinking about, how do I get young people to treat the place better. That's quite far away from, how do I get them on a bike using an active travel route? So, trying to encourage people who that's so far off their radar, you know, coming in, all guns blazing on this specific thing that's not even anywhere near where they are. It just doesn't work, it just doesn't work' (interview, 26/07/2022).

This illustrates an important point about ensuring that active travel infrastructure is culturally relevant and can truly benefit local people, rather than assuming it is an inherent asset. Active travel must be seen to be a relevant solution for poorer households, which means that it must be seen to be an affordable and practical way to alleviate their financial and time burdens. Both physical and social active travel infrastructure play a mutually reinforcing role in that.

sustrans

Health and Safety

Although there has been a slight increase in overall feelings of safety on the route since the path was completed, women are still more likely than men to feel unsafe. Still, it is worth noting that the percentage of women saying the route feels safe has significantly increased. No men disagree or strongly disagree that the path feels safe, whereas 16% of women disagree and 11% strongly disagree, as shown in Figure 5 below.

Figure 4: Gender breakdown of responses to 'This route feels safe'

	Baseline RUIS		Follow-up RUIS	
	Women (including transgender women)	Men (incl. transgender men)	Women (including transgender women)	Men (incl. transgender men)
Strongly agree	13%	26%	16%	28%
Agree	38%	65%	53%	66%
Neutral	13%	6%	5%	7%
Disagree	38%	3%	16%	0%
Strongly disagree	0%	0%	11%	0%

Men are also more likely than women to feel that the path is better maintained now than it was in 2019. There are gender differences in perceptions of how well lit the path is, too, as shown in Figure 6 below. Despite the overall increase in feelings that the path is well lit between 2019 and 2022, women are nearly four times as likely as men to strongly disagree that the completed path is well lit:

Figure 5: Gender breakdown of responses to 'The path is well lit'

	Baseline RUIS		Follow-up RUIS	
	Women (including transgender women)	Men (incl. transgender men)	Women (including transgender women)	Men (incl. transgender men)
Strongly agree	13%	0%	11%	17%
Agree	13%	23%	21%	31%
Neutral	0%	13%	16%	24%
Disagree	0%	23%	26%	21%
Strongly disagree	75%	42%	26%	7%

sus**trans**

Inadequate lighting, littering, fly-tipping and anti-social behaviour have been raised as safety concerns on the path in interviews conducted by Sustrans. Residents said that they felt safe during the day but avoid it at night because of notorious anti-social behaviour in the local area, and there have been requests for more CCTV and bins along the path. One resident said the path is 'in a less affluent area so it brings the wrong crowd as such or might have done historically.' In the words of another resident:

> 'Although I'm known in the area and I've worked here for years, I would be reluctant to use it at night, just in case there was any hassle. I'm pretty sure I could cycle faster than they can run, but … yeah, just out of safety. I think sometimes, as well, it is lit, but there's often glass and some debris and stuff, so it might be just a safety thing and a case of you might not see anything and get a puncture, and it's the worst place probably to get a puncture in the dark I would say as well.'

In response to safety concerns, a midway exit point was implemented to enable people to get off the path sooner if they felt unsafe, but there is still a need for more investigation into women's and girls' safety concerns. One stakeholder said he has not spoken to women and girls about how safe they feel on the path but would like to:

> 'That path is quite well built and has lights now, and so from a safety point of view if that was something that would put people off the basis of being afraid of being attacked because of gender, then potentially that is something that supports people to use it. But I haven't, to be fair, I haven't spoken to people specifically about that point. And nobody has brought it up as something that they see as an issue, but that doesn't necessarily mean that it's not… And so, from a gender point of view, it's not something that anyone's come to me about at all, but now that you've brought it up that actually is an interesting point. And I would be interested to know how people feel about it. But people have generally reported they feel safer using it because as a new path, it does have light strips all the way along as well' (interview, 26/07/2022).

It is positive that this stakeholder is interested in learning more about gender and safety issues. One way to do so is to conduct gender safety audits before, during and after active travel infrastructure is delivered. Gender safety audits can help identify and address any safety concerns women and girls might have.

Another stakeholder said that anti-social behaviour and perceptions of safety were identified as 'the ones, for us, that were the greatest risks' when conceptualising the path and both issues were 'certainly considerations, so we cleared vegetation to ensure clear sight lines,

sustrans

but the Council weren't prepared to sanction streetlights' (interview, 29/07/2022). The Council was hesitant to install more permanent overhead lighting on the path due to the cost and the perceived risk of vandalism, and opted for solar studs instead, which are cheaper.

However, residents interviewed by Sustrans felt this was inadequate. One resident said that they would only walk the first section of the path at night, where the floodlights from the pump track still reached the path, before turning back out of fear. A stakeholder who worked on the project told Sustrans they were aware of 'four or five women concerned about using the path. It did have a really negative image at one time, for drug misuse and stuff like that. So, they weren't really using it.'

The decision to install solar studs rather than more permanent street lighting along the path is an example of how a gender budgeting approach could have led to a different outcome. One could argue that deciding that street lighting was too expensive and opting for a cheaper alternative fails to consider gendered perceptions of safety. If a gender perspective and gender budgeting had been adopted, it is possible that there would have been a different decision. The benefits of permanent street lighting in improving women's and girls' feelings of safety could have been deemed worth spending more money on.

Lighting is not the only issue – public spaces are gendered and this, too, affects feelings of safety and active travel behaviour. A stakeholder mentioned, 'I am aware in the past there has been concern about some of the boys in the area, not necessarily sexual harassment, but their general education levels and how they talk' (interview, 27/07/2022). The presence and behaviour of groups of boys can be intimidating and make women and girls feel uncomfortable and potentially unsafe. More youth outreach programmes and bystander intervention training are examples of community-based approaches to drive culture change and make spaces safer for women and girls.

It is important to note that the pump track at the end of the path is a gendered space. All three male stakeholders interviewed have observed it is mostly used by boys. One said he could count the number of girls on the pump track on one hand. Another elaborated:

> 'That's mainly boys [at the pump track]. I know a lot of the young people I work with go up there. Generally, what you'll find is that the boy, most of the boys will have a shot at the pump track while the girls will hang about, as opposed to actually going on it… However, that is quite a high calibre pump track up there as well, so some of the boys don't actually even use it, you know, because they either come off it or somebody's come off it and, in some cases, got quite a bad injury. That kind of stops them going back on it. So yes, still more boys, I think that's always been the case with extreme sports' (interview, 26/07/2022).

sus**trans**

Pump tracks, skateparks and multi-use games areas may be seen as facilities that meet the needs of all young people, but they are typically dominated by boys and young men, which can deter women and girls from visiting and using those spaces (Walker and Clark, 2020). An active travel path that goes to the pump track, therefore, arguably disproportionately benefits boys and young men at the expense of girls and young women.

One stakeholder agreed that cycling overall and usage of the pump track generally tend to be more male dominated, but pointed out, 'many school groups who use this as an activity, there's no reason why there should be any gender bias with the schools' (interview, 29/07/2022). He later noted that pump tracks target male adolescents because 'their disruptive behaviour is evident in schools and the community more generally. So, in that respect, I think there is less emphasis placed on the gender balance in users as any skew towards male adolescents is actually beneficial' (email, 02/08/2022).

This begs the questions: Were all relevant stakeholders, especially women and girls in the local area, involved in the decision-making process? If so, was there unanimous support to focus the project on a pump track to mainly benefit young men and boys? If it, indeed, had been a conscious decision to focus the project on a pump track to mainly benefit young men and boys, then was there an alternative project that focused on the needs of young women and girls in the area?

It was suggested that the local organisation that built the pump track and lead outreach and education programmes to get a wider range of people, especially women and girls, interested in cycling, would likely have sex-disaggregated data on who uses the pump track. Unfortunately, no one at that organisation was available for an interview at the time of this research.

Accessibility

According to 2022 RUIS data, 100% of women and 97% of men strongly agree or agree that the path is easily accessible. One stakeholder characterised the path as very accessible because it is wide, smooth and has no barriers. He thought that the lack of barriers was a refreshing change, as 'the Council's built some paths in the past, but they've put in gates and things, and that stops anyone with not a normal bike who is unable to then pick that bike up' (interview, 26/07/2022).

He also thought the width was an important way to 'future-proof' the path, as it can accommodate cycle rickshaws, cargo bikes and 'more inclusive bikes, tandem bikes and hand-crank bikes and things like that that wouldn't normally be able to sit on some of the cycle paths' (interview, 26/07/2022). He sees potential for a wider range of cycles to be used

sus**trans**

on the path, by a more diverse range of people. However, given the high levels of deprivation in the local area, the cost of an adapted cycle or cargo bike would be prohibitive, and so he suggested a cycle lending library with different kinds of cycles for people to try.

The only accessibility issue that has been raised so far is that the incline of the path is too steep. A stakeholder who worked on the project told Sustrans that young people especially struggle with the incline – '…I'd liked to have seen a little bit of a plateau, a wee bit of a winding path up, just to make it a little bit more gentle. We take just one school but it's nearly 50 pupils that you take up and down to the pump track and it's emotional for some of them, that hill.' Residents interviewed by Sustrans agreed that the incline was an issue and that people, mainly frequent cyclists, struggle to cycle up it. It would be worth conducting an accessibility audit to see if there are any other accessibility issues.

Another stakeholder pointed out that the pump track is not accessible:

> 'The pump track, it's still a sport that probably isn't very disability friendly, you know, without the specialised equipment. So, the path may be okay, the pathway itself is good, but the pump track is uneven, you know, the area around the pump track is gravel, so disabled people and elderly people can probably walk up and down the pathway, but then there'd be no destination point' (interview, 27/07/2022).

One stakeholder felt that accessibility issues were important but often overlooked in active travel, transport and built environment projects:

> 'We have a disability access panel…and they are consulted a lot on, you know, things that are going on…I'm not sure about this part of the path you're talking about… that's really disappointing, you know, we ensure that we talk to disabled people because we know that it costs a lot more to fix a problem once it's been built than, you know, to design it in at the very beginning' (interview, 22/07/2022).

She used an example of benches, which are important so that people, particularly disabled people, older people and people in ill health or with mobility problems, can have places to stop and rest. This seems especially relevant, given the town's sizeable population of adults with long-term health conditions. However, she is not aware of any active travel projects led by the Council that have accounted for benches or places to rest along the route.

Another dimension of accessibility is access to key services. Since the path opened, there has been an overall increase in people's ability to access retail, health services, other public

sustrans

services and family or friends. A slightly higher proportion of women report being able to access retail, health services and public services (e.g. bank and post office), whereas a slightly higher proportion of men report being able to access family or friends since the path has opened, as shown in Figure 6.

Figure 6: Gender breakdown in access to services using the path

	Baseline RUIS		Follow-up RUIS	
	Women (incl. transgender women)	Men (incl. transgender men)	Women (incl. transgender women)	Men (incl. transgender men)
Retail	0%	0%	20%	18%
Health services	0%	0%	17%	14%
Other public services	0%	0%	17%	13%
Family or friends	18%	27%	22%	29%

At the same time, stakeholders interviewed felt there is potential for mobile services to be brought to people via the path. For example, there could be a cargo bike or cycle rickshaw on the path selling healthy, fresh and affordable vegetables, or there could be a mobile Citizens Advice hub that could be stationed along the path. One stakeholder mentioned that Citizens Advice will start doing monthly sessions at the community centre, and a partner organisation nearby just opened a community co-op, both of which local people have very much welcomed. He seemed confident that residents would benefit from having mobile services brought to them – 'I get the impression that yes, absolutely, something like that would work well… from what I've heard from people, yeah, it would be very, very much appreciated' (interview, 26/07/2022).

Another stakeholder agreed that there was huge potential to use active travel infrastructure to bring mobile services to people because 'that's just the way the world works now… People want things at their doorstep, you know, next day delivery' (interview, 27/07/2022). He felt that mobile services would be particularly beneficial to reach groups who may be 'reluctant to engage with services even though they need help. They'll be reluctant because they're suspicious of the council' (interview, 27/07/2022). Bringing mobile services to people, therefore, would help them save time and money on travelling and enable them to access support that they might not necessarily have sought themselves.

He also thought it would be beneficial for organisations like Sustrans to work with local Citizens Advice Bureaus, particularly when building active travel infrastructure in areas of

sus**trans**

high deprivation: 'prove you've done the best engagement. Work with the CAB' (interview, 27/07/2022). For those living in poverty, worries about their next pay check, Universal Credit, rent, feeding their families, or simply making it through the week are urgent priorities that can eclipse any consideration of active travel. There is a greater need to communicate and demonstrate the benefits of active travel to people experiencing poverty in a way that makes sense with their lives and their local context. As this stakeholder suggests, one effective way to do this is by working with local organisations that are embedded in communities and closer to the realities of their daily struggles.

Affordability

The active travel link traverses one of the most deprived areas in Scotland and there has been a dramatic increase in RUIS respondents of all genders who report saving money by using the path (Figure 7). However, men still are more likely to save money using this route. Previously, only 17% of those unemployed or on sick leave strongly agreed that they save money using the path but since completion, that proportion has dramatically increased to 100%. However, only one respondent to the aselyne RUIS said they were unemployed / sick leave, whereas nine respondents in the follow-up RUIS were unemployed / sick leave. Still, it is extremely positive that there has been overall growth in people who strongly agree that they save money using the path.

Figure 7: Gender breakdown in responses to 'I save money by using this route'

	Baseline RUIS		Follow-up RUIS	
	Women (including transgender women)	Men (incl. transgender men)	Women (including transgender women)	Men (incl. transgender men)
Strongly agree	13%	3%	63%	72%
Agree	25%	48%	0%	14%
Neutral	63%	45%	37%	14%
Disagree	0%	3%	0%	0%
Strongly disagree	0%	0%	0%	0%

Stakeholders felt the path has greater potential to reduce people's transport costs if it were extended:

'… then you have the potential then for things like cycle rickshaws to support people to travel as opposed to getting a taxi. I mean, I would hope that it would

Gender budgeting in active travel in Scotland
08/03/2024

sus**trans**

be cheaper than to get a taxi company or whoever to run rickshaws up to the college, up to the sports centre... So, in the future, I do see a lot of potential in it to save people money to get people more active, but there's a lot more that would need to be done, I think, to support that' (interview, 26/07/2022).

One stakeholder noticed that a lot of local people take taxis to get around because they do not have a car and local public transport is poor. He gave an example:

'My caretaker here gets a taxi all the time and she only lives down the road, which is far enough that it's not a comfortable walk for her and she'll get a taxi up and down a lot of the time, which must be costing her, you know, a good chunk of her wages just to get to and from work… ultimately living in a deprived area means that you have to spend more money for anything' (interview, 26/07/2022).

The crucial point here is that to optimise the potential of active travel to help lower income households reduce their transport costs and enjoy all the other benefits of active travel, it is important to engage with them to be able to build infrastructure that meets their needs. Too often, the perspectives of those on low or no incomes are left out of engagement processes (IPRR Scotland, 2022). Stakeholders interviewed felt that extending the path and making it more of a practical active travel route for people to go to school, work and shops would also help local people save time traveling, which would greatly help those experiencing financial and time poverty. In the words of one stakeholder:

'I think there's massive potential there for people, people to feel safe enough to want to use it for one thing, but also to save money, to save time, as opposed to getting in a car and going down that main road, which can be hellish, especially during rush hour' (interview, 26/07/2022).

He was particularly keen to get cycle rickshaws in the area to provide a cheaper and more environmentally friendly alternative to taxis, an idea he has raised with Sustrans, especially as it would also help create jobs in the local area. He also felt that if the path were extended and if cycle rickshaws and cargo bikes became more of the mix, this would create more local, green jobs and get more people interested in active travel:

'That's why I'm interested in looking at, making sure that paths have future proofing things, like rickshaws, how you can get companies, like taxi companies interested and involved in these types of things. As I say, to make the spaces usable for commerce, I suppose, really, it's one thing having them there for recreational use but as soon as anyone starts thinking, oh, I can actually make

sustrans

some money here, that's when people start getting interested and actually use it' (interview, 26/07/2022).

He sees potential for the path to decarbonise local deliveries by using cargo bikes. At the organisation he previously worked at, there was a cargo bike that he used to deliver food packages to people in the local area. He also used the cargo bike to pick up bottles for recycling that children at a local school had collected and drop them off at recycling facilities. He thought of another organisation in another part of the town that delivers food parcels locally that could switch to cargo bike deliveries. Ultimately, he envisions delivering healthy food to local people by cargo bike as a long-term ambition to promote both active travel and healthy eating.

Monitoring and Evaluation

Interviews with stakeholders suggest room for improvement in community engagement. One way to do so is to include ongoing engagement with local people in the monitoring and evaluation process. One stakeholder felt that it was especially important to engage local people properly if or when the path gets extended, so they can use it to save time and money on travelling. He suggested areas to explore more in depth with residents: issues around women's and girls' safety; the types of mobile services people would like to see in the local area; what local deliveries could be done by cargo bike; the types of cycling programmes that would help get more people cycling; as well as what journeys people want to make by walking, wheeling or cycling.

Another important element of monitoring and evaluation of active travel routes highlighted by two stakeholders is the need for a gender perspective at senior levels to promote gender equality in active travel. One stakeholder hopes that the Council will develop more gender competence through its partnership with the Scottish Women's Budget Group to work towards gender budgeting. Despite being in the early stages, this work has been promising so far:

> 'And the next part of that project, as well as more workshops with senior managers, is workshops with elected members who ultimately are the people that make the decisions and approve the decisions, so hopefully by the end of the year the lightbulb will come on' (interview, 22/07/2022).

Another stakeholder was similarly enthusiastic about Council developing more gender competence, doing more gender budgeting work and improving gender equality in active travel and other areas of public service provision. He thought more training to build knowledge and capacity for gender analysis was key:

sustrans

'It's something that is by no fault of anyone but it's something that we all have to consider because we just don't think of these things, there's no shame in holding your hands up and saying I never thought of it and I got it wrong, you know. So, I think what you're doing is just fantastic… Everyone's responsible and certainly all elected officials, the decision makers usually rubber stamp projects and agree things, they have to, people need to be educated. I suppose that education is the thing that enables us all to be better people' (interview, 27/07/2022).

There was a consensus that more training was important, so that people working on active travel projects address and help reduce inequalities in active travel. The monitoring and evaluation of active travel infrastructure should explicitly consider who are the most vulnerable groups that could benefit the most from active travel and whether or to what extent they have benefited from new infrastructure.

Conclusion

Case Study 2 stands out for four reasons. Firstly, the follow-up monitoring data shows three major successes of the path: (i) a significant increase in women's perceptions of safety, (ii) a reduction in transport costs for all and (iii) the halving of the gender gap in cycling. Secondly, there is an opportunity to further optimise the potential of the path to help reduce individuals' and households' transport costs. This can be done by extending the path to enable more access to a range of shops, schools and services, as well as strategic investment in social infrastructure for cycling, so that active travel can be perceived as an everyday mode of travel for those experiencing high levels of deprivation.

A third reason why Case Study 2 stands out is because the pump track is a gendered space that is primarily used by boys and young men. Given that the first phase of the active travel link leads to the pump track, one could argue that it reinforces and reproduces gender inequalities in active travel. While there is a local organisation that provides social infrastructure for cycling to encourage more diversity in cycling, it seems that more meaningful community engagement could have taken place.

Finally, it is extremely promising that that the Council is engaged in gender budgeting work with the Scottish Women's Budget Group. All stakeholders interviewed demonstrated an awareness of inequalities in active travel, particularly around gender, socioeconomic status and disability. Importantly, they also exhibited a keen appetite to develop gender expertise so that they can do more to tackle gender and other inequalities in active travel.

sus**trans**

Appendix III: Case Study 3

Case Study 3 was part of a wider £10m regeneration programme and transformed a disused railway viaduct into a fully accessible linear park and pathway. The new route opened in September 2021 and links a canal towpath and the National Cycle Network (NCN) route towards a national park. It redirects the NCN away from two busy road crossings, therefore providing mostly off-road access from a major city to a national park. The wider regeneration programme aims to make the area a vibrant tourism and leisure destination.

Local context

Case Study 3 is in a village that is a half-hour drive from a major city, with an estimated population of 560 (National Records of Scotland, 2022). The local authority area is among the smallest local authorities in Scotland in terms of land area and population. Life expectancy rates, as well as the difference between life expectancy in the least and most deprived areas in the local authority area are significantly worse than the Scottish average.

Compared to the rest of Scotland, the local authority area also has a higher percentage of disabled people (20% vs. 23%, respectively) and a larger employment gap for disabled people (just over 50% vs. 40%, respectively). The proportion of people without degree level qualifications and in elementary occupations (e.g. packing, shelf stacking, cleaning), as well as reliance on the public sector for jobs are higher in the local authority area than the average for Scotland. The gender pay gap is bigger in the local authority area than for Scotland.

The village is one of the least deprived parts of the local authority area. Life expectancy for women and men is higher in the village than the averages for both the local authority area and Scotland. Compared to the average for the local authority area, village residents have substantially higher education, employment and income levels. There is also a much higher proportion of owner-occupied households in the village, relative to the average for the local authority area.

Data sources

Baseline data provided by Sustrans include:

— Annual Usage Estimates from the viaduct, 2021;

— Annual Usage Estimates from the canal towpath, 2019;

— Route User Intercept Surveys (RUIS) from the viaduct (August 2021);

sus**trans**

- Route User Intercept Surveys (RUIS) from the canal towpath (August 2019);

- Pedestrian and cycle automatic counts at two locations;

- Notes from Sustrans interviews with two local business owners in October 2021;

- Notes from an accessibility audit, arranged by the delivery partner in September 2021.

The follow-up monitoring data had not yet been analysed at the time of doing this research. Only one local stakeholder was interviewed, a white male who worked on the project. Unfortunately, no other local stakeholders responded to requests for interviews at the time of this research.

Engagement

The stakeholder interviewed described the community engagement process as a series of in-person public information events run by the delivery partner in the village hall prior to the COVID-19 pandemic. During the pandemic, online engagement events took place, which was more challenging, as participants struggled with technology issues (e.g. muting and unmuting their microphone and unreliable wifi connections). The partners also kept the chairman of the local community council informed about project plans and progress.

One issue raised in the community engagement process was striking the balance between adequately lighting the path, especially the viewing platform, whilst not disturbing or violating the privacy of residents in the neighbouring buildings:

> 'There was concern because this is an elevated section potentially looking into the windows of the tenement. People were concerned about their privacy. That was dealt with in planning…there's been planting put to the side...between the footpath and the houses to provide some degree of shelter' (interview, 21/07/2022).

The stakeholder said that both business owners who run the three businesses under the arches were involved in the engagement process, as 'they were invited to all the meetings that took place. They've equally been spoken to, in terms of informing them what's been going on' (interview, 21/07/2022). However, in the interviews Sustrans did with the two business owners, they reported not feeling engaged in the project design and planning. One said that there should have been earlier, more frequent and more thorough engagement with residents, businesses and customers that should have continued throughout and after project delivery: 'everyone has questions and there was no one there to answer.'

Both business owners were also concerned that people would go over the path without knowing about their businesses under the viaduct and felt there needed to be more signage – 'Yes, it's providing the ramps, but is there going to be signage? Is there going to be tourist signage saying, 'destination point below,' 'pit stop below'?' Another business owner said, 'I expect to lose footfall from the actual footpath that's there at the moment, and we have to have discussions with [the delivery organisation] as to what kind of signage they're going to put up to support the businesses below, because you're diverting traffic from the main harbour.'

Our partner was aware of these concerns, that the path 'has provided a bypass. So, whereas cyclists and walkers would go right past the front door and they [businesses under the viaduct] would get custom, they're now going right over the top and they don't know they exist' (interview, 21/07/2022). However, it is unclear whether or how this has been resolved, as none of the business owners were available for interviews at the time of this research.

Infrastructure

Data from the 2019 and 2021 RUIS's showed similar patterns in users and journey purposes. 63 out of 1410 route users (4.5%) participated in the 2019 RUIS on the canal towpath and a slightly higher proportion, 138 out of 1807 route users (7.6%), participated in the 2021 RUIS on the viaduct. All respondents were white, most respondents were male, most respondents were in full- or part-time employment (59%) or retired (34-35%), most people cycling were experienced cyclists, and the predominant journey purpose was recreation. Compared to 2019, there was a greater proportion of pedestrians, experienced cyclists and respondents who make the trip at least once a week in 2021. This likely reflects the overall increase in walking and cycling during the COVID-19 pandemic.

It is not surprising that baseline RUIS data shows that most users are white men and that most cyclists are experienced, given that the project reroutes part of the NCN route and Sustrans data shows that NCN users are predominantly white men. In 2019, 63% of RUIS respondents were men, with men aged 65+ representing the largest age group (28%), followed by men aged 45-54 (25%). Meanwhile, the 2021 RUIS showed a more even gender split, with men representing 54% of respondents and women representing 46%. In this case, most women and men were between the ages of 55-65+ (55% and 61%, respectively).

The RUIS on the viaduct showed that 88% of respondents strongly agreed or agreed that the path meets the needs of the community and 97% strongly agreed or agreed that the path is fit for purpose, but there was no meaningful gender difference, as shown in Figure 8 below.

sustrans

Figure 8: Gender breakdown of respondents' satisfaction with path

	The path meets the needs of the community	The path is fit for purpose
Women (incl. transgender women) who strongly agree / agree	47%	53%
Men (incl. transgender men) who strongly agree / agree	48%	52%

Despite representing a smaller proportion of overall respondents, those aged 25-34 were the age group most likely to strongly agree or agree that the path lets them go straight to their destination, is the best transport option and the most convenient route.

Health and Safety

Both local business owners that Sustrans interviewed agreed that the area was attractive, supported the needs of their businesses and felt safe during the day. However, one said it did not feel safe at night. Both business owners also felt there needed to be ongoing maintenance, especially as some of the materials used (e.g. glass) could be easily damaged. Vandalism, littering and anti-social behaviour in the area were other issues they felt needed to be addressed, so that the area continues to be nice and does not revert to its formerly dilapidated state.

The stakeholder who worked on the project was aware of issues people had raised around anti-social behaviour, which he explained happened because:

> '...Youths from not just the local area but from much more of a wider area like to congregate [here]…This is not unique. It just seems to be a congregational spot and things usually start off well and then the substances that are imbibed, be that booze or drugs, start to kick in' (interview, 21/07/2022).

Houseboat residents have complained in the past about anti-social behaviour and the police have been involved on several occasions, but the hope is that the wider regeneration of the area will help reduce anti-social behaviour: 'I think part of the hope of the regeneration works there taking place is that if there are enough people there, then the youth will find it not such a good area to go and move on somewhere else' (interview, 21/07/2022).

sus**trans**

The majority of RUIS respondents reported feeling safe on the route (Figure 9), although men were over twice as likely as women to strongly agree that the route felt safe at the canal towpath RUIS. At the other RUIS location on the viaduct, men were slightly more likely than women to strongly agree that the route felt safe.

Figure 9: Gender breakdown of responses to 'This route feels safe'

	Forth and Clyde (2019)		Viaduct, East (2021)	
	Women (incl. transgender women)	Men (incl. transgender men)	Women (incl. transgender women)	Men (incl. transgender men)
Strongly agree	59%	70%	58%	57%
Agree	32%	23%	38%	39%
Neutral	9%	5%	3%	0%
Disagree	0%	3%	2%	3%
Strongly disagree	0%	0%	0%	1%

In the viaduct RUIS in 2021, respondents were asked about the extent to which they agreed that the path was well lit. Only 12% of 2021 RUIS respondents – or 16 people, with an even gender split – agreed the path was well lit. Interestingly, a higher proportion of men than women strongly disagreed or disagreed that the path was well lit (Figure 10). Those aged 25-34 were most likely to agree that the path was well lit, whereas those aged 65+ were least likely to agree.

Figure 10: Gender breakdown of responses to 'The path is well lit' (Viaduct)

	Women (incl. transgender women)	Men (incl. transgender men)
Strongly agree	0%	0%
Agree	13%	11%
Neutral	41%	35%
Disagree	34%	41%
Strongly disagree	13%	14%

sus**trans**

While the stakeholder interviewed was aware of concerns around lighting, he admitted a lack of awareness about wider concerns around women's and girls' safety:

'I am a mere engineer. I have to say that those sorts of things [gender and wider diversity and inclusion considerations] are not things that come across my desk on a daily basis. I'm not aware of anything specific that's been considered on that front…In terms of whether there's any gender specific stuff, there's not anything I'm aware of' (interview, 21/07/2022).

Lighting issues were raised by both wheelchair users who participated in the accessibility audit with the partner, who felt that the platform viewpoint, which was not lit at night, created a risk that people, both able-bodied and disabled, would be unable to see the edge in the dark and fall off. At least one or two members of the public also emailed with concerns about inadequate lighting on the platform. Improvements were made as a result:

'There was an area which I think was aimed to look effectively like a railway platform and act like a railway platform. And a couple of things that came out of that [the accessibility audit] is that that had no fencing on the edge of it. So wheelchair users, whilst in the daylight, they can see what's happening there but if they're visually impaired or if it's getting towards the night time, because there wasn't any lighting there at that point, there was a concern that they would fall off the edge of this platform. So we have put a handrail along the viewing side of that platform. We've also introduced lighting because, again, we when we were commissioning it shortly before opening, we were there late at night one time just to look at the lighting. And that area was pitch black, basically, so people would not be able to see off the edge and potentially fall off. That's the biggest change' (interview, 21/07/2022).

It was felt that there was no further action needed to improve lighting: 'I mean, the entire pathway…is lit and has always been lit. So, we don't anticipate any requests for further lighting on that path, the issue was, as I say, this raised area at the time didn't have any lighting' (interview, 21/07/2022). To minimise the disturbance to residents nearby, he said the lighting switches off at 11pm or midnight and turns back on at or around 6am. It would be worth conducting gender safety audits to identify if there are any aspects of the path make women, girls and gender minorities feel unsafe and how they can be improved.

Another safety issue that the stakeholder previously 'never really had to spend an awful lot of time considering (interview, 21/07/2022' was providing safe recreational opportunities for children:

'This access ramp was quite large, it's a big, long thing, it's got a kind of landing platform halfway up and there was an original intention to have a fireman's pole for children to sort of slide down and get out of there. And that might be quite a fun thing. We had a mock-up building of part of the access ramp. What this showed was this gaping chasm where people would gain access to the fireman's pole and we all just talked about it and that's just somewhere for somebody to fall off. So, we took that out. We love to have fun, but it's got to be safe. So, it's things like that, learning the lesson that there's quite a fine balance to strike when you're talking about children, for example, to make something fun, but to make it safe. Safe fun is quite a difficult thing' (interview, 21/07/2022).

Efforts have been made to design the path for all ages and abilities, which seem to have challenged some engineers and pushed them out of their comfort zones. This, again, reflects the technocratic paradigm in engineering, in which professionals working on infrastructure projects typically do not consider, and have not been trained to consider, issues around equality, diversity and inclusion. However, the funder can change this, by making equality, diversity and inclusion priorities in all active travel projects.

Accessibility

Findings from the viaduct RUIS in 2021 show that most people feel the path is easily accessible (Figure 11). Men were slightly more likely to strongly agree or agree than women, but there is no significant gender difference. Meanwhile, those aged 65+ were the age group least likely to strongly agree.

Figure 11: Gender breakdown of respondents' feelings that the path is easily accessible

	Women (incl. transgender women)	Men (incl. transgender men)
Strongly agree	39%	35%
Agree	58%	64%
Neutral	2%	1%
Disagree	2%	0%
Strongly disagree	0%	0%

sustrans

However, the two local business under the arches that interviewed were divided about how accessible the area was, with one citing inadequate car parking as a barrier for disabled people, especially when more businesses open under the arches.

The stakeholder said that clear signage and accessibility were prioritised since the project's inception because 'Sustrans obviously insist on that…Sustrans certainly will have been very influential on that because they were the major funder' (interview, 21/07/2022). The viewing platform, access ramps, as well as the height of signs and handrails were designed with accessibility in mind, as per Sustrans' requirement. The route signage was done to a high specification because 'we spent a lot of time doing the signage. And as I say, Sustrans often think about signage which I would say is fairly extensive and fairly comprehensive' (interview, 21/07/2022).

To ensure accessibility, an accessibility audit with two wheelchair users was conducted prior to the opening of the path, which found overall satisfaction but several areas in need of improvement. Firstly, it was suggested that the access ramp should have landings at more regular intervals rather than just the change of direction, as it could be a struggle for someone in a wheelchair to push themselves up the ramp without assistance without a halfway point to stop and rest. Another suggestion was to put a visible line at the start and end of the gradients and the staircases (e.g. a yellow line at the start and end of the access ramp) to help visually impaired people. Thirdly, it was felt that visually impaired people could struggle to see the glass at the small viewpoint and would therefore risk walking or wheeling into it, which could be mitigated by putting etched motifs in. Finally, exiting the access ramp from the viewpoint was a tight turn that was just about manageable for wheelchair users.

According to the partner, the recommendations to improve accessibility for visually impaired people had been implemented. However, as the ramp ascending and descending the viewpoint was already built, it was not possible to add more landings or widen the turn on/off the ramp. He reflected that this was a useful exercise because '…from my own point of view in terms of engineering, I've never really had to spend an awful lot of time considering access for all…I'm simply an engineer, so these sorts of things are quite new to me' (interview, 21/07/2022). He felt that conducting accessibility audits was good practice that should be incorporated in future active travel projects because it made him aware of disabled people's experiences and challenges in public space, which he has never had to think about as an able-bodied male:

> 'I'm very lucky I still walk around. And so, it's having that aspect that there's a different thought process to what I go through because of the way that I'm fortunate enough to live my life, you know, that if they're in a wheelchair, we've

sustrans

got to try and keep things as accessible and as equitable for them as we can. So yeah, it's just learning about the kind of thought process' (interview, 21/07/2022).

In terms of access to services, baseline data shows that the route has not highly enabled people to access retail, health services, other public services and family or friends. However, the canal towpath RUIS findings show that a greater proportion of women were able to access retail, and a greater proportion of men were able to access health services and other public services. Meanwhile, the viaduct RUIS findings show that slightly more women than men were able to access public services and family or friends using the route.

Figure 12: Gender breakdown in access to services using the path

	Canal towpath (2019)		Viaduct (2021)	
	% Women (incl. transgender women)	% Men (incl. transgender men)	% Women (incl. transgender women)	% Men (incl. transgender men)
Retail	30%	20%	18%	18%
Health services	4%	8%	3%	3%
Other public services	4%	8%	5%	2%
Family or friends	22%	14%	27%	25%

In the future, it would be worth exploring the potential for the project to expand people's access to health and other public services.

Affordability

Baseline data shows that 50-56% of total respondents strongly agreed or agreed that they saved money using the route. Men were slightly more likely to strongly agree than women, as shown in Figure 14 below. Because there were very few respondents who were in unemployment or on sick leave, or looking after home or the family, it is not possible to ascertain whether this route has enabled those on low or no incomes to save money.

The delivery partner sees the potential of the project to help reduce transport costs for people with low incomes in the long term by 'allow[ing] people to think about ditching the car and taking an active transport route, [especially] if people decide the car is becoming a bit expensive' (interview, 21/07/2022). To realise that potential, it is important to explore how the project can reduce transport costs for people who work in the area in the leisure or tourism

Gender budgeting in active travel in Scotland
08/03/2024

sus**trans**

industry. Moreover, there must be safeguards in the wider regeneration project to ensure that new housing is affordable.

Figure 13: Gender breakdown of respondents' feelings that they save money using this route

	Canal towpath (2019)		Viaduct (2021)	
	% Women (incl. transgender women)	% Men (incl. transgender men)	% Women (incl. transgender women)	% Men (incl. transgender men)
Strongly agree	36%	38%	19%	35%
Agree	18%	10%	30%	27%
Neutral	41%	50%	42%	24%
Disagree	5%	0%	8%	14%
Strongly disagree	0%	3%	2%	0%

Considerations around affordability should be more prominent in Case Study 3, as it is part of a wider, high-profile regeneration project. There is a risk of 'green gentrification' or 'eco-gentrification,' which is the unequal distribution of urban greening and sustainable infrastructure projects, the benefits of which are skewed towards more affluent populations (Anguelovski et al., 2019; Black and Richards, 2020).

For example, the New York High Line is both a global example of high quality urban green space projects, as well as a textbook example of 'green gentrification.' The High Line has catalysed gentrification in New York by dramatically increasing residential property values in the adjacent area, therefore exacerbating the housing crisis and urban inequalities by displacing existing, less wealthy populations to and attracting wealthier ones (Black and Richards, 2020). When discussing the potential risk of Case Study 3 driving green gentrification, the stakeholder remarked:

'I don't think it will have significant impact on the value of property in that area, but that's simply my opinion. All it's doing is making it more attractive place for people to visit rather than to live there now…it's becoming effectively a destination…' (interview, 21/07/2022).

Regeneration projects are often couched in language around making places more 'attractive' and more of 'a destination.' The question is, for whom? The village is one of the more affluent

sustrans

areas in the local authority area, which raises questions around whether the wider regeneration project may increase inequality by attracting more middle-class people as both residents and path users.

Monitoring and Evaluation

There are several issues with the baseline data that have implications for the monitoring and evaluation of Case Study 3. The first issue is that the baseline data from the automatic pedestrian and cycle counters was patchy for unknown reasons out of Sustrans' control, most likely to be faults, vandalism and vegetation. 2019 is the most recent year with sufficient data from the automatic counters to estimate the annual median daily totals of people walking and cycling. Counters can provide the volume of people walking and cycling, but not the diversity of people walking and cycling. While the Annual Usage Estimates include a breakdown of gender, age and mode, the incomplete baseline data from the counters may affect their accuracy. Moreover, the Annual Usage Estimates do not account for other demographic characteristics, like sexual orientation, socioeconomic status, ethnicity or disability.

The second issue with the baseline data is that the homogeneity of the sample makes it difficult to do any intersectional analysis. In this case, the bigger issue is who is not counted in the existing data. To engage with diverse groups who are not captured in existing data collection methods, more participatory methods that would also enable more in-depth community engagement (e.g. EQIAs, gender safety audits and accessibility audits) seem especially pertinent.

Conclusion

Case Study 3 recently won a Scottish Design Award for Public Realm/Landscaping. One of its main strengths is that accessibility considerations were integrated in the design and delivery stages. It is the only case study where an accessibility audit had been conducted and led to changes. It seems that accessibility would have been a more obvious issue to address because it is an elevated path, and so providing step-free access, as well as the presence and incline of ramps would have been key design considerations. However, the stakeholder said that accessibility issues, designing for all ages and abilities, were relatively new to him, and as an engineer, he typically had not encountered this in his previous work.

Two concerns identified in the accessibility audit were around lighting on the viewing platforms and potential problems for visually impaired people, which Scottish Canals took on board and addressed by adding lighting, a handrail and etched motifs in the glass at the viewing panel. However, some issues, such as creating landings at more regular intervals on the access ramp and widening the turn off the ramp from the viewpoint, were too late to

sustrans

address. This highlights the need to do accessibility audits at an earlier stage well ahead of project completion. Importantly, Scottish Canals felt the accessibility audit was a useful, insightful and valuable process that should be done more routinely to create more accessible and inclusive places.

sus**trans**

References

Aldred, R. (2012). Governing transport from welfare state to hollow state: The case of cycling in the UK. *Transport Policy* 23: 95-102. DOI: http://dx.doi.org/10.1016/j.tranpol.2012.05.012

Aldred, R. (2016). Cycling near misses: Their frequency, impact, and prevention. *Transportation Research Part A: Policy and Practice*, 90: 69-83. DOI: https://doi.org/10.1016/j.tra.2016.04.016

Aldred, R., Woodcock, J. and Goodman, A. (2016). Does more cycling mean more diversity in cycling? *Transport Reviews*, 36(1): 28-44. DOI: https://doi.org/10.1016/j.tra.2016.04.016

Aldred, R. and Osei, A. (forthcoming). 'You always think about what other people be thinking': Black men and barriers to cycling in London. *Active Travel Studies: An Interdisciplinary Journal*.

Anguelovski, I., Connolly, J., Pearsall, H., Shorky, G., Checker, M., Maantay, J., Gould, K., Lewis, T., Maroko, A. and Roberts, J.T. (2019). Why green "climate gentrification" threatens poor and vulnerable populations. *PNAS*, 116 (52), 26139-26143. DOI: https://doi.org/10.1073/pnas.1920490117.

APPG for Women in Transport. (2021). *Gender Perceptions and Experiences Working in Transport*. Available at: https://smarttransportpub.blob.core.windows.net/web/1/root/gender-perceptions-and-experiences-working-in-transport-final.pdf [accessed 11/07/2022].

Atkins. (2021). *Getting home safely: safe by design by women transport planners*. Available at: https://www.snclavalin.com/~/media/Files/S/SNC-Lavalin/documents/transportation/get-home-safe.pdf [accessed 11/07/2022].

Barcelona City Council. (2019). *Urban planning where gender, equality and safety in public spaces all count*. Available at: https://www.barcelona.cat/infobarcelona/en/tema/urban-planning-and-infrastructures/urban-planning-where-gender-equality-and-safety-in-public-spaces-all-count_771943.html [accessed 18/07/2022].

Barnes, J., Chatterton, T. and Longhurst, W.S. (2019) Emissions vs. exposure: Increasing injustice from road traffic-related air pollution in the United Kingdom. *Transportation Research Part D: Transport and Environment*, 73: 56-66. DOI: https://doi.org/10.1016/j.trd.2019.05.012.

Bike for good. (n.d.). *Bikes For All*. Available at: https://www.bikeforgood.org.uk/shop/bikes-for-all/. [accessed 11/08/2022].

Black, K.J. and Richards, M. (2020). Eco-gentrification and who benefits from urban green amenities: NYC's High Line. *Landscape and Urban Planning*, 204, 103900. DOI: https://doi.org/10.1016/j.landurbplan.2020.103900.

C40 Cities Finance Facility. (2020). *Gender equality and city cycling in Bogota*. Available at: https://www.c40cff.org/knowledge-library/la-equidad-de-genero-y-el-ciclismo-urbano-en-bogota-el-caso-de-la-ciclo-alameda-medio-milenio [accessed 18/07/2022].

Cabinet Secretary for Rural Affairs and Islands. (2021). *Rural Scotland Key Facts 2021*. Available at: https://www.gov.scot/publications/rural-scotland-key-facts-2021/ [accessed 19/07/2022].

sus**trans**

Campbell, J. and Gillespie, M. (2017). Gender analysis of spending on the Scottish Modern Apprenticeship programme. *Local Economy*, 32(5): 420-432. DOI: https://doi.org/10.1177/0269094217721669.

Christie, M. and Ward, H. (2018). *The emerging issues for management of occupational road risk in a changing economy: A survey of gig economy drivers, riders and their managers*. Available at: https://static1.squarespace.com/static/61d570b3a2957b5f755587d2/t/6229c14cc77957122eb81d9e/1646903632558/a-survey-of-gig-economy-drivers-riders-and-their-managers_1.pdf [accessed 18/07/2022].

Commission for Architecture and the Built Environment (CABE). (2005). *Black and Minority Ethnic Representation in the Built Environment Profession*. Available at: https://www.thenbs.com/PublicationIndex/documents/details?Pub=CABE&DocID=276889 [accessed 11/07/2022].

Couve, C., Lam, T., and Verlinghieri, E. (2023). *Delivering Good Work: Labour, employment and wellbeing in London's cargo bike sector*. Available at: https://blog.westminster.ac.uk/ata/wp-content/uploads/sites/60/2023/01/221222_Delivering-good-work_Londons-Cargo-Bike-secton_V5-1.pdf [accessed 06/02/2023].

Crenshaw, K. (1989). Demarginalising the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics, *University of Chicago Legal Forum*, 1(8): 139-167. Available at: https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1052&context=uclf [accessed 11/07/2022].

Engender. (2023). *Sex & Power in Scotland 2023*. Available at: https://www.engender.org.uk/content/publications/SEX-AND-POWER-IN-SCOTLAND-2017.pdf [accessed 05/07/2023].

Engender. (2023). *Joint response to the Finance and Public Administration Committee Inquiry into Effective Scottish Government decision-making*. Available at: https://www.engender.org.uk/content/publications/SP2023FINALPDF.pdf [accessed 29/08/2023].

European Commission. (2019). *EU Transport Scoreboard: United Kingdom*. Available at: https://transport.ec.europa.eu/index_en [accessed 12/07/2022].

European Institute for Gender Equality (EIGE). (2022). *Gender Budgeting: Step-by-step toolkit. Guidance for mainstreaming gender into the EU Funds*. Available at: https://eige.europa.eu/sites/default/files/20195932_mh0419709enn_pdf.pdf [accessed 11/07/2022].

European Transport Workers' Federation (ETF). (2017). *Violence against women at work in transport: Summary report of findings from a survey by ETF*. Available at: https://www.etf-europe.org/wp-content/uploads/2018/09/ETF-summary-report-VAW-at-work-in-transport_EN.pdf [accessed 11/07/2022].

Fairburn, J., Schule, S.A., Dreger, S. Hilz, L.K. and Bolte, G. 2019. Social inequalities in exposure to ambient air pollution: A systematic review in the WHO European Region. *International Journal of Environmental Research and Public Health*, 16(17): 3127, DOI: https://doi.org/10.3390/ijerph16173127.

First Minister's National Advisory Council on Women and Girls. (2020). *2020 Report and Recommendations*. Available at: https://onescotland.org/wp-

content/uploads/2021/01/562006_SCT1120576152-002_NACWG.pdf [accessed 07/07/2022].

Frederick, J.K. (2021). *Three considerations for inclusively and responsibly analysing and reporting on demographics*. Ithaka S+R. Available at: https://sr.ithaka.org/blog/three-considerations-for-inclusively-and-responsibly-analyzing-and-reporting-on-demographics/ [accessed 01/08/2022].

Gender Equality Toolkit in Transport Planning. (GET IT). (n.d.). Available at: https://www.the-get-it.com/ [accessed 15/07/2022].

Glasgow Centre for Population Health. (2020). Bikes for All evaluation: Summary of overall findings (2018-2020). Available at: https://www.gcph.co.uk/assets/0000/7955/Bikes_for_All_year_two_report.pdf [accessed 08/09/2023].

Hoffman, M. (2016). *Bike lanes are white lanes: Bicycle advocacy and urban planning*. Lincoln: University of Nebraska Press.

Hoffman, M. and Lugo, A.E. (2014). Who is "world class"? Transportation justice and bicycle policy. *Urbanites*, 4 (1), 45-61. Available at: https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1045.5288&rep=rep1&type=pdf.

Invisible Commutes. (n.d.). Available at: https://www.invisiblecommutes.com/ [accessed 15/07/2022].

IPPR Scotland. (2022). *Fairly Reducing Car Use in Scottish Cities*. Available at: https://www.ippr.org/research/publications/fairly-reducing-car-use-in-scottish-cities [accessed 15/07/2022].

Jacobs and Aecom. (2021). *Island Communities Impact Assessment Report*. Available at: https://www.transport.gov.scot/media/50910/island-communities-impact-assessment-draft-report-january-2022-stpr2.pdf [accessed 19/07/2022].

Lam, T. (2021). Cycling in London: Delivery Cyclists' Views. *Public Sector Focus*, 36: 50-51. Available at: https://flickread.com/edition/html/index.php?pdf=61791d655437f#52 [accessed 15/07/2022].

Lam, T. (2022) Towards an Intersectional Perspective in Cycling. *Active Travel Studies: An Interdisciplinary Journal*, 1(1): 1-12. DOI: https://doi.org/10.16997/ats.1264.

Lee, D. (2018). Delivering justice: food delivery cyclists in New York City. PhD Dissertation, CUNY Academic Works. Available at: https://academicworks.cuny.edu/gc_etds/2794/ [accessed 18/07/2022].

Living Streets. (2021). *Road Traffic and Injury Risk in Ethnic Minority Populations*. Available at: https://www.livingstreets.org.uk/media/6335/road-traffic-injury-risk-amongst-gb-black-and-ethnic-minority-populations.pdf [accessed 13/07/2022].

Living Streets. (2021). *Road Traffic and Injury Risk in Ethnic Minority Populations*. Available at: https://www.livingstreets.org.uk/media/6335/road-traffic-injury-risk-amongst-gb-black-and-ethnic-minority-populations.pdf [accessed 13/07/2022].

sus**trans**

Los Angeles Department of Transport (LADOT). (2021). *Changing Lanes: A gender equality transportation study*. Available at: https://ladot.lacity.org/changinglanes [accessed 07/07/2022].

McCullough, S.R., Lugo, A. and Stokkum, R.V. (2019). Making bicycling equitable: Lessons from sociocultural research. *UC Davis: Institute of Transportation Studies*. Available at: https://doi.org/10.7922/G22R3PWK.

Motability. (2022). *The Transport Accessibility Gap*. Available at: https://www.motability.org.uk/media/iwaidhxk/motability_transport-accessibility-gap-report_march-2022_final.pdf [accessed 06/02/2023].

Murillo-M., J., Gomez-Varo, I. and Marquet, O. (2022). Mobility of Care in a Latin American City: Identifying Spatial Practices and Mobility Patterns of Caregivers in Bogota. SSRN. DOI: https://dx.doi.org/10.2139/ssrn.4070838.

National Records of Scotland. (2022). *Mid-2020 Population Estimates for Settlements and Localities in Scotland*. Available at: https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/settlements-and-localities/mid-2020 [accessed 21/07/2022].

National Records of Scotland. (2022). *Mid-2021 Population Estimates Scotland*. Available at: https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/mid-2021 [accessed 21/07/2022].

National Records of Scotland. (2015). *Scotland's Census 2011: Inhabited Islands Report*. Available at: https://www.scotlandscensus.gov.uk/documents/inhabited-islands-analytical-report/ [accessed 19/07/2022].

Nomis. (n.d). *Labour Market Profile – North Lanarkshire*. Available at: https://www.nomisweb.co.uk/reports/lmp/la/1946157426/report.aspx#tabempunemp [accessed 22/07/2022].

Oakland Department of Transport (OakDOT). (2019). *Let's Bike Oakland: 2019 Oakland Bike Plan*. Available at: https://www.oaklandca.gov/resources/bicycle-plan [accessed 07/07/2022].

Oakland Department of Transport (OakDOT). (2022). *We Bike Oakland: Bi-annual newsletter reporting progress implementing Oakland's Bicycle Plan from the City of Oakland, Department of Transportation*. 30th Edition. Available at: https://cao-94612.s3.amazonaws.com/documents/WeBikeOakland_Winter2022.pdf. [accessed 11/08/2022].

O'Hagan, A. (2017). Gender budgeting in Scotland: A work in progress. *Administration*, 65(3): 17-39. DOI: https://doi.org/10.1515/admin-2017-0022.

Oxfam. (2020). *Time to Care: Unpaid and underpaid care work and the global inequality crisis*. Available at: https://oxfamilibrary.openrepository.com/bitstream/handle/10546/620928/bp-time-to-care-inequality-200120-en.pdf [accessed 14/07/2022].

People for Bikes. (2021). *Where do we go from here? Breaking down barriers to bicycling in the US.* Available at: https://prismic-io.s3.amazonaws.com/peopleforbikes/6b4cc95b-295d-4947-88fb-839702944c97_PFB-Final-Barriers+to+Biking+REPORT.pdf [accessed 18/07/2022].

sustrans

Popan, C. and Anaya-Boig, E. (2021). The intersectional precarity of platform cycle delivery workers. SocArXiv. DOI: https://doi.org/10.31235/osf.io/tk6v8.

Possible. (2020). *LTNs for all? Mapping the extent of London's new Low Traffic Neighbourhoods*. Available at: https://static1.squarespace.com/static/5d30896202a18c0001b49180/t/5fb246b254d7bd32ba4cec90/1605519046389/LTNs+for+all.pdf [accessed 18/07/2022].

Possible. (2022). *Nobody Left Behind: Envisioning inclusive cities in a low-car future*. Available at: https://static1.squarespace.com/static/5d30896202a18c0001b49180/t/620bd77ea6a7065a0dec6fe1/1644943920058/Nobody+Left+Behind+Envisioning+inclusive+cities+in+a+low+car+future.pdf [accessed 18/07/2022].

Quayle, A. (2019). *Investing in cycling to tackle transport poverty and promote equality*. Conference paper for Scottish Transport Applications Research Conference. Available at: https://starconference.org.uk/star/2019/Quayle.pdf [accessed 14/07/2022].

Road Safety Analysis. (2015). *The link between deprivation and road safety*. Available at: https://roadsafetyanalysis.org/2015/12/the-link-between-deprivation-and-road-safety/ [accessed 05/07/2022].

Sánchez de Madariaga, I. (2013). The mobility of care. Introducing new concepts in urban transportation. In Inés Sánchez de Madariaga and Marion Roberts eds. (2013). Fair shared cities. The impact of gender planning in Europe. Ashgate.

Scotland's Centre for Regional Inclusive Growth. (SCRIG). (n.d.) *North Ayrshire: Scotland's first Community Wealth Building council*. Available at: https://www.inclusivegrowth.scot/north-ayrshire-scotlands-first-community-wealth-building-council/ [accessed 16/08/2022].

Scottish Government. (2021). *Equality and Fairer Scotland Budget Statement 2022-2023*. Available at: https://www.gov.scot/publications/equality-fairer-scotland-budget-statement-2022-23/pages/2/ [accessed 06/02/2023].

Scottish Government. (2021a). *Equality Budget Advisory Group: recommendations for equality and human rights budgeting – 2021-2026 parliamentary session*. Available at: https://www.gov.scot/publications/equality-budget-advisory-group-recommendations-for-equality-and-human-rights-budgeting---2021-2026-parliamentary-session/pages/knowledge-and-understanding/ [accessed 14/02/2023].

Scottish Government. (2021b). *National Islands Plan Survey Final Report*. Available at: https://www.gov.scot/publications/national-islands-plan-survey-final-report/ [accessed 19/07/2022].

Scottish Government. (2022). *Recorded Crime in Scotland, 2021-2022*. Available at: https://www.gov.scot/publications/recorded-crime-scotland-2021-2022/pages/6/ [accessed 11/08/2022].

Scottish Government. (2022a). *Tackling inequalities through economic recovery*. Available at: https://www.gov.scot/news/tackling-inequalities-through-economic-recovery/#:~:text=Background-,The%20Centre%20of%20Expertise%20in%20Equality%20and%20Human%20Rights%20will,practice%20more%20effectively%20across%20government [accessed 14/02/2023].

Scottish Women's Aid. (2019). *Participating in Equally Safe in the Highlands and Islands: Consulting Women*. Available at: https://womensaid.scot/wp-

content/uploads/2019/09/Participating-in-Equally-Safe-in-the-Highlands-and-Islands-Consulting-Women-Digital.pdf [accessed 11/08/2022].

Scottish Women's Budget Group. (2022). *Finance and Public Administration Committee pre-budget scrutiny*. Available at: https://www.swbg.org.uk/content/publications/FPA-Committeee-pre-budget-scrutiny-2022.pdf [accessed 14/02/2023].

Spinney, J. and Xie, L. (2018). 'I won't cycle on a route like this; I don't think I fully understood what isolation meant': A critical evaluation of the safety principles in Cycling Level of Service (CLoS) tools from a gender perspective. *Travel Behaviour and Society*, 13, 197-213. DOI: https://doi.org/10.1016/j.tbs.2018.07.002.

Stehlin, J. (2019). *Cyclescapes of the Unequal City: Bicycle Infrastructure and Uneven Development*. Minneapolis: University of Minnesota Press.

Sustainable Urban Transport Project. (2020). *Bicycles unite! How to strengthen and encourage women's daily bicycle mobility in Bogota*. Available at: https://sutp.org/bicycles-unite-how-to-strengthen-and-encourage-womens-daily-bicycle-mobility-in-bogota/ [accessed 14/07/2022].

Sustrans. (2018). *'Are we nearly there yet?' Exploring gender and active travel*. Available at: https://www.sustrans.org.uk/media/2879/2879.pdf [accessed 05/07/2022].

Sustrans and Arup. (2020). Cycling for Everyone. Available at: https://www.sustrans.org.uk/our-blog/research/all-themes/all/inclusive-cycling-in-cities-and-towns [accessed 05/07/2022].

Sustrans. (2022). *Newtown and Llanllwchaiarn Personal Safety Study: Literature Review of Women's Personal Safety*. [accessed 15/07/2022].

Sustrans. (2022a). *The Walking and Cycling Index 2021*. Available at: https://www.sustrans.org.uk/the-walking-and-cycling-index/ [accessed 05/07/2022].

Sustrans. (2023). *Disabled Citizens' Inquiry*. Available at: https://www.sustrans.org.uk/our-blog/research/all-themes/all/disabled-citizens-inquiry/ [accessed 08/02/2023]/.

Sustrans, Living Streets and Arup. (2022). *Walking for Everyone*. Available at: https://www.sustrans.org.uk/our-blog/research/all-themes/all/walking-for-everyone/ [accessed 05/07/2022].

Swedish Women's Lobby. (2018). *Follow the Money! A method for analysing budgets and policies from a gender equality perspective*. Available at: https://sverigeskvinnolobby.se/wp-content/uploads/2013/08/Follow-the-money_webb-1.pdf [accessed 05/07/2022].

TInnGO. (n.d.). *Fair Shared City – Vienna's gender sensitive planning approach*. Available at: https://www.tinngo.eu/wp-content/uploads/2020/11/TInnGO_MSF_presentation_Eva_Kail.pdf [accessed 07/07/2022].

Transport Scotland. (2019). *Active Travel Framework*. Available at: https://www.transport.gov.scot/media/47158/sct09190900361.pdf [accessed 03/02/2023].

Transport Scotland. (2022). *Funding boost for walking, wheeling and cycling*. Available at: https://www.transport.gov.scot/news/funding-boost-for-walking-wheeling-and-cycling/.

Transport Scotland. (2022a). *The Active Nation Commissioner's Final Report*. Available at: https://www.transport.gov.scot/publication/the-active-nation-commissioner-s-final-report/ [accessed 11/07/2022].

Transport Scotland. (2022b). *Active Travel Indicators Report – 2019 Baseline Report*. Available at: https://www.transport.gov.scot/publication/active-travel-indicators-report-2019-baseline-report/ [accessed 06/02/2023]/

Transport Scotland. (2022c). *NTS People's Panel Pilot – Transport Findings*. Available at: https://www.transport.gov.scot/publication/nts-people-s-panel-pilot-transport-findings/. [accessed 03/02/2023].

Transformative Urban Mobility Initiative (TUMI) and Women Mobilize Women. (2022). *The 15-Minute City: A Feminist Utopia?* Available at: https://www.transformative-mobility.org/assets/publications/TUMI_WMW_Feminism_and_the15min_City.pdf [accessed 15/07/2022]

UCL Urban Lab. (2020). *Scoping Study – London's participation in UN Women's Safer Cities and Safe Public Spaces Programme*. Available at: https://www.ucl.ac.uk/urban-lab/sites/urban-lab/files/scoping_study-_londons_participation_in_un_womens_safer_cities_and_safe_public_spaces_programme.pdf [accessed 18/07/2022].

Wales Centre for Public Policy. (2019). *Tackling Inequality Through Gender Budgeting*. Available at: https://www.wcpp.org.uk/wp-content/uploads/2019/09/Tackling-Inequality-Through-Gender-Budgeting.pdf [accessed 07/07/2022].

Walker, S. and Clark, I. (2020). *Make Space for Girls*. Available at: https://makespaceforgirls.co.uk/wp-content/uploads/2021/02/Make-Space-for-Girls-Summary-of-Research-findings-December-2020-web.pdf [accessed 27/07/2022].

Women4Climate. (2019). *Closing the Data Gap for A Cycling Scheme: A Case Study on the Use of San Francisco Bike Lanes*. Available at: https://www.w4c.org/sites/default/files/2019-02/W4C_San_Francisco_Case_Study.pdf [accessed 07/07/2022].

Women4Climate. (2019a). *Gender Inclusive Climate Action in Cities*. Available at: https://w4c.org/full-study/women4climate-report-gender-inclusive-climate-action-cities [accessed 07/07/2022].

Women on Wheels. (n.d.). Av https://womenonwheels.org.uk/ [accessed 14/02/2023]. Women's Budget Group. (2018). *Women Count: A Resource for Gender Responsive Budgeting Groups*. Available at: https://wbg.org.uk/resources/women-count-a-gender-responsive-budgeting-casebook/ [accessed 05/07/2022].

Women's Budget Group. (2021). *Towards Gender-Inclusive and Sustainable Transport Systems*. Available at: https://wbg.org.uk/analysis/uk-policy-briefings/towards-gender-inclusive-and-sustainable-transport-systems/ [accessed 05/07/2022].

Women's Budget Group and Wen. (2020). *Towards a Feminist Green New Deal for the UK*. Available at: https://wbg.org.uk/wp-content/uploads/2020/05/Feminist-Green-New-Deal.pdf [accessed 11/07/2022].