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National Transport Strategy 2

Monitoring and Evaluation Framework

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Introduction

Scotland's National Transport Strategy (NTS2) sets out an ambitious and compelling vision for our transport system for the next 20 years and outlines the four priorities for our transport system: Reduces Inequalities; Takes Climate Action; Helps Deliver Inclusive Economic Growth; and Improves our Health and Wellbeing.

When the NTS2 was published in February 2020 it recognised the need for its implementation to be flexible to adapt to emerging and changing evidence. This is particularly relevant in light of the Covid-19 outbreak and Government response, and the impact of this on our economy and society. The NTS2 remains valid as our long term strategy setting the framework for decision making on transport in Scotland. However, we must also take account of the evidence of the impact of Covid-19 on travel behaviour and how this has exacerbated some of the challenges for transport as well as presenting opportunities to help address the four priorities outlined by the NTS2.

Key to understanding and evaluating the progress of the NTS2 over the short, medium and long term is to routinely monitor and report on progress towards its outcomes. We will report on performance in tackling the challenges and achieving the NTS2's outcomes at a national, regional and local level, commencing end-March 2022.

Structure of the Monitoring and Evaluation Strategy

To meet our commitment to routinely report on the performance of the NTS2, we propose two outputs are produced from the data gathered:

- The first is an annual monitoring report showing the headline indicators and secondary measures, disaggregated by protected characteristics, geography and socioeconomic status, where possible, and showing trends over time.
- The second is a three-yearly evaluation report which includes the above but also looks at drawing together data from additional sources, and qualitative/case study data from our stakeholder groups and transport partners. This will be a larger report and focus on wider set of data which will provide a comprehensive overview of the NTS2's performance to date against the outcomes and vision it has set out to achieve.

Both reports will be published with available data sets on the Transport Scotland website.

Headline Indicators

The following headline indicators will be used to measure progress towards delivering on the four priorities and twelve outcomes that constitute the strategic framework of the NTS2.

Where possible, all indicators will be disaggregated by equalities, socioeconomic, and geographic characteristics. This will provide the ability to look at particular sections of the population, and conduct intersectional analysis, as opposed to having only one or two isolated indicators which pick up equality, socioeconomic or geographical issues.

Many of the indicators selected are based on data already collected, primarily via the Scottish Household Survey or Scottish Transport Statistics. This provides the ability to carry out trend analysis over time and to set a baseline position prior to the launch of NTS2. However, the impact of Covid-19 on the continuity of data collections will impact, at least initially, on the ability to use time series data given some collection methods have changed such as the Scottish Household Survey, from which many of the indicators are drawn. Additionally, the impact of Covid-19 on transport and travel behaviours in 2020 will skew the data and therefore will need to be considered in setting baselines for new indicators, and for analysing trends which cover the period of the pandemic.

The indicators selected are focussed primarily on outcomes given the nature of the framework. However, there are some indicators that by necessity are output focussed.

Where relevant, existing targets and strategic objectives will feed into the overall performance monitoring such as reducing child poverty by reducing the percentage of household spend on transport; achieving net zero by 2045; the reduction in the need for petrol and diesel cars by 2032; reducing car kilometres by 20% by 2030; and road safety targets for 2030. Some of these are not necessarily directly linked to transport, but will be included in our reporting to acknowledge the role that transport will play in helping to achieve them.

Figure 1 shows the links between the NTS2 and the National Performance Framework and UN Sustainable Development Goals. Figures 2 and 3 show the data that will be collected to inform the performance of the NTS2 and how these link to the four main priorities. Specific details on the Headline Indicators and Secondary measures are discussed in more detail in Annex A.

In addition to these measures, qualitative data such as personal testimonies and lived experience will feature as part of the monitoring process. Transport Scotland

will also draw on data from the following sources to inform the overall progress of the strategy:

- Accessibility Travel Framework Indicators;
- Operators performance;
- Insights from equalities groups e.g. Mobility and Access Committee for Scotland;
- DPOs such as DES, Citizen's Transport Assembly BEMIS; Engender;
- Scottish Transport Statistics;
- Progress towards Fairer Scotland Ambitions;
- Active Travel Framework indicators;
- Carbon Account for Transport;
- Paths for All Data;
- Cycling Scotland Data;
- Sustrans data.
- Scottish Heath Survey Data;
- Scottish Household Survey Data.
- Road Safety Framework 2030 indicators.

National Transport Strategy - Contribution Story



Figure 1: NTS2 Contribution to the National Performance Framework and UN Sustainable Development Goal

Figure 1 shows the NTS2 Contribution to the National Performance Framework and UN Sustainable Development Goals. It highlights that the four priority areas of the NTS2 – Reduces Inequality; Takes Climate Action; Helps Deliver Inclusive Economic Growth; and Improves Our Health and Wellbeing – contribute to nine of the 11 National Outcomes contained a part of the Scottish Government’s National Performance Framework.

These National Outcomes have a bearing on all 17 of the United Nations Sustainable Development Goals.

Headline Indicators	Reduces Inequalities	Takes Climate Action	Helps Deliver Inclusive Economic Growth	Improves our Health and Wellbeing
Modal Use – trips and distance	Yes	Yes	No	Yes
Spend on transport – individual and household	Yes	No	Yes	Yes
Perception of affordability	Yes	No	No	No
Journey Times to Basic Services	Yes	No	Yes	No
Transport emissions	Yes	Yes	No	Yes
Proportion of short journeys made by active travel	No	Yes	No	Yes
Sustainable mode share – primarily active travel and public transport	No	Yes	No	Yes
Journey times to areas of employment	Yes	No	Yes	No
Movement of freight by mode	No	Yes	Yes	No
Transport casualties and accidents by exposure or by km travelled by mode	Yes	No	No	Yes
Perception of safety travelling by public transport and active modes	Yes	No	No	Yes
Air quality measure	Yes	Yes	No	Yes

Figure 2: NTS Headline Indicators – all indicators will be disaggregated by demographic, geographic and socioeconomic characteristics where possible

Secondary Measures	Reduces Inequalities	Takes Climate Action	Helps Deliver Inclusive Economic Growth	Improves our Health and Wellbeing
Satisfaction with public transport	Yes	No	No	Yes
Barriers to public transport use and access	Yes	No	Yes	No
Journey times to and connectivity between transport modes.	Yes	Ni	Yes	No
Proportion of electric vehicle (EV) and ultra-low emission vehicles (ULEV) registrations	No	Yes	No	Yes
Km travelled by sustainable modes – active travel and public transport	No	Yes	No	Yes
Barriers to active modes – access and self-reported	Yes	No	No	Yes
Performance measures of public transport modes	No	No	Yes	No
Use of smart/ integrated technology in public transport (TBC)	No	No	Yes	No

Secondary Measures	Reduces Inequalities	Takes Climate Action	Helps Deliver Inclusive Economic Growth	Improves our Health and Wellbeing
Tourism/visitor numbers	No	No	Yes	No
Proximity to segregated walking, wheeling and cycling infrastructure	Yes	Yes	No	Yes
Travel for recreation/leisure	No	No	No	Yes

Figure 3: Secondary Measures - all indicators will be disaggregated by demographic, geographic and socioeconomic characteristics where possible

Data Availability, Baseline and Impact of Covid-19

The headline indicators and secondary measures comprise a range of existing and new data. For some, such as perception of affordability, the baseline position for these measures will be when data becomes available.

For others where data already exists, it is suggested that the baseline position is 2019. Although this is prior to the publication of the NTS2 in 2020, given the impact of Covid-19, it is suggested that where possible, baselines are set pre-pandemic to provide data from a 'typical' year with regard to transport and travel as opposed to 2020 where these have been significantly impacted. However, comparisons with 2020 data will be relevant to consider whether the pandemic has accelerated or decelerated change and these will be considered in the initial Monitoring and Evaluation reports.

Data availability has been affected by the impact of the pandemic and this in turn impacts on the continuity of data from pre-pandemic to now and in the future. For example, the necessary shift in methodology in 2020 of the Scottish Household Survey from face-to-face to online or telephone interviews means that direct comparisons with 2019 data are not possible and the time series for existing indicators evidence by the Scottish Household Survey (SHS) will be broken. This will need to be considered alongside the significant impact of Covid-19 on travel behaviours and attitudes before drawing any conclusions regarding changes or fluctuations in the data. Caveats to the headline indicators and secondary measures are discussed more fully in Annex A.

The continued collection of data to inform the Monitoring and Evaluation Framework is key to informing decision making on transport policy. Utilising all available evidence as well as considering the need for new or additional data collections will be an ongoing consideration of the strategy. Details of data sources currently proposed are outlined in Annex A.

Annex A:

Headline Indicators

Indicator	Definition of Success	Data Source	Risk/Caveats	Data Breakdowns
Individual spend on transport	Increases or decreases in spend alone do not necessarily equate to a negative or positive outcome. The measure of success is therefore the relationship between spend and measure of affordability - below. This will vary for different sub-groups and mode used. Improving the perception of the affordability of transport linked to spend and reducing any divergence in this relationship by mode, demographic, geographic or socioeconomic characteristics over time will indicate more affordable transport.	New data. Scottish Household Survey (SHS).	As this is a new measure, data from the SHS will not be available until 2022. The long term future of the SHS is uncertain as a result of Covid-19 which may affect time series data in the future if methods change or an alternative source for data collection is used.	Sub-group analysis will be provided by age group; sex; disability status; ethnicity; religion or belief; household income; SIMD; and respondent's local authority area, depending on the sample size. For other equalities groups characteristics such as sexual orientation, gender reassignment, and pregnancy and maternity, further analysis via qualitative methods or from other sources e.g. stakeholder groups will be required as data for these groups in the SHS is either not collected or the sample sizes are too small to provide meaningful statistical data.
Perception of affordability	As above, the success criteria would be more affordable transport and a reduction in any divergence of this for sub groups.	New data. Scottish Household Survey.	As this is a new measure, data from the SHS will not be available until 2022. The long term future of the SHS is uncertain as a result of Covid-19 which may affect time series data in	Sub-group analysis will be provided by age group; sex; disability status; ethnicity; religion or belief; household income; SIMD; and local

Indicator	Definition of Success	Data Source	Risk/Caveats	Data Breakdowns
			<p>the future if methods change or an alternative source for data collection is used.</p>	<p>authority area, depending on the sample size. For other equalities groups characteristics such as, sexual orientation, gender reassignment, and pregnancy and maternity, further analysis via qualitative methods or from other sources e.g. stakeholder groups will be required as the data for these groups in the SHS is either not collected or the sample sizes are too small to provide meaningful statistical data.</p>
<p>Individual Modal Use – Trips and Distance</p>	<p>No one single measure of success. National level data will provide evidence of changing trends over time in mode use, frequency of trips and distance travelled. To be successful in reducing car kilometres by 20% by 2030, success would be a reduction in car use and distance travelled by car. For specific sub groups e.g. disabled people, improving the frequency with which disabled people travel and the distances they travel is another measure of success.</p>	<p>Existing Data. Scottish Household Survey</p>	<p>Data is already available for this indicator stretching back many years so there is historic trend data. There are limitations to the data on ferry use and aviation given the overall numbers in the SHS sample who use these modes is small relative to other modes of transport. Additional or supplementary data collection with users of these modes may therefore be necessary. Due to the change in the methodology of the SHS, data from 2020's survey will not be directly comparable and therefore the continuity of the tome series will be broken.</p>	<p>Sub-group analysis will be provided by age group; sex; disability status; ethnicity; religion or belief; household income; SIMD; and local authority area, depending on the sample size. For other equalities groups characteristics such as sexual orientation, gender reassignment, and pregnancy and maternity, further analysis via qualitative methods or from other sources e.g. stakeholder groups will be required as these data for these groups in the SHS is either not collected or the sample sizes are too small</p>

Indicator	Definition of Success	Data Source	Risk/Caveats	Data Breakdowns
			2020 (and possibly beyond) data is also going skewed given restrictions on travel and changes to travel behaviour and attitudes as a result of the pandemic.	to provide meaningful statistical data.
Journey Times to Basic Services for individuals	Reduction in journey times.	New Data. TRACC national accessibility tool.	As this measure will use a newly developed tool by Transport Scotland, it will be key to ensure the conditions and parameters used to model journey time is future proofed and is able take account of any changes to the location of services or changes in transport provision.	Sub group analysis will be provided by mode service type, location, and SIMD. e.g. journey times by bus to access a GP surgery in an area of high deprivation, for example. This will help to provide insight into where there are particular challenges and who may be affected.
Transport Emissions	Reduced transport emissions.	Existing Data. Data is already collected and published in the Transport Scotland publication Scottish Transport Statistics and the Carbon Account for Transport.	In isolation, this indicator is limited but allied with the other headline indicators below for this priority, and secondary measures and other data that will be presented, it will help to provide a comprehensive suite of indicators that show progress in the Take Climate Action priority.	Emissions data by mode will also be presented alongside the total emissions data. Geographic breakdown will be dependent on data availability. Data on Air Quality management Areas is available at a Local Authority level.

Indicator	Definition of Success	Data Source	Risk/Caveats	Data Breakdowns
Proportion of short journeys made by active travel by individuals	Increases proportion of short journeys made by transport.	Existing Data. Scottish Household Survey.	Data is already available for this indicator stretching back many years so there is historic trend data. Due to the change in the methodology of the SHS, data from 2020's survey will not be directly comparable and therefore the continuity of the time series will be broken. 2020 (and possibly beyond) data is also going skewed given restrictions on travel and changes to travel behaviour and attitudes as a result of the pandemic. This has manifested in a significant observed reduction in walking, wheeling and cycling for utilitarian purposes, but a self-reported increase for recreational and exercise purposes.	Sub-group analysis will be provided by age group; sex; disability status; ethnicity; religion or belief; household income; SIMD; and local authority area, depending on the sample size. For other equalities groups characteristics such as sexual orientation, gender reassignment, and pregnancy and maternity, further analysis via qualitative methods or from other sources e.g. stakeholder groups will be required as these data for these groups in the SHS is either not collected or the sample sizes are too small to provide meaningful statistical data.
Sustainable mode share by individuals	Increased modal share of all journeys, journey stages and distance travelled by sustainable modes.	Existing Data. Scottish Household Survey	Data is already available for this indicator stretching back many years so there is historic trend data. Due to the change in the methodology of the SHS, data from 2020's survey will not be directly comparable and therefore the continuity of the tome series will be broken. 2020 (and possibly beyond) data is also going skewed given restrictions on travel and changes to travel behaviour and attitudes as a result of	Sub-group analysis will be provided by age group; sex; disability status; ethnicity; religion or belief; household income; SIMD; and local authority area (place of residence), depending on the sample size. For other equalities groups characteristics such as sexual orientation, gender reassignment, and pregnancy and maternity, further analysis

Indicator	Definition of Success	Data Source	Risk/Caveats	Data Breakdowns
			<p>the pandemic. Data shows that sustainable public transport use has dropped considerably in 2020, as has walking, wheeling and cycling for commuting purposes. The intention to avoid public transport and use car more in the future has also been expressed.</p>	<p>via qualitative methods or from other sources e.g. stakeholder groups will be required as these data for these groups in the SHS is either not collected or the sample sizes are too small to provide meaningful statistical data.</p>
<p>Journey times to areas of employment and education for individuals</p>	<p>Reduced journey times.</p>	<p>New Data. TRACC national accessibility tool.</p>	<p>As this measure will use a newly developed tool by Transport Scotland, it will be key to ensure the conditions and parameters used to model journey time is future proofed and is able take account of any changes to the location of concentrations of labour/employment and changes in transport provision. A clear definition of what constitutes a concentrated area of labour/employment will need to be agreed which will differ between urban and rural locations. Not all employment locations will be included so this may exclude shorter or longer journeys time but by focussing on concentrations, it is anticipated that this measure provides a useful and robust proxy. There is a risk that this may mask a shift towards the concept of 20 minute neighbourhoods, or reflect the expected growth in home working/online learning.</p>	<p>Sub group analysis will be provided by mode, scale of labour concentration, location and SIMD. e.g. journey times by bus to access edge of town retail park, city centre office, rural town centre. This will help to provide insight into where there are particular challenges and who may be affected.</p>

Indicator	Definition of Success	Data Source	Risk/Caveats	Data Breakdowns
<p>Movement of freight</p>	<p>Primarily an output measure showing how freight is moved.</p>	<p>Existing Data. Data is already collected and published in the Transport Scotland publication Scottish Transport Statistics.</p>	<p>This is primarily an output measure but by monitoring the volume over time, it will provide some insight into flows of goods entering and exiting Scotland, and the way this is being done and adapted to meet and address a range of issues such as efficiency, capacity of the network, changes in the market, shift to sustainable fleets and modes, etc. It is unclear to what extent the EU Exit negotiations and trade deals to be established with Scotland's main sources of imports and exports will affect the transportation of freight but will need to be considered when interpreting analysis in future years. More immediately, as with personal travel, Covid-19 will have impacted the movement of freight in 2020/2021 and possibly beyond as businesses adapt to changes in demand, their business models, and around the transportation of freight as result of the pandemic.</p>	<p>Analysis will be provided by mode and also freight type, if available. Geographic data is available for road freight by Regional Transport Partnership area; for ferry freight by port; for air freight by airport</p>
<p>Transport casualties and accidents by exposure and by km travelled by mode</p>	<p>Reduction in casualties.</p>	<p>Existing Data. Reported Road Casualties</p>	<p>Data on 2020/2021 will be affected by the pandemic with a lower volume of traffic over the course of the year and reported road casualty data already reporting less accidents. This</p>	<p>Sub group analysis will be provided by mode and relative to distance travelled. This will give a proportional measure based on distance travelled and mode share, as well as actual</p>

Indicator	Definition of Success	Data Source	Risk/Caveats	Data Breakdowns
			<p>will need to be considered when looking at any recent changes. The drive to increase active modes as viable options for utilitarian purposes overall may have been accelerated as a result of the pandemic (though this remains to be seen) and therefore in future years, it may be expected that casualty numbers for walkers and cyclists may increase and increase more sharply than previous trend data would suggest. However, this is far from certain.</p> <p>While it would be possible to calculate casualty rates for types of road users, as the numbers for certain modes can be quite low, casualty rates could show a lot of variation between years, particularly if split by accident severity or type of road user (e.g. children). Further analysis on how these can be used to reliably track progress over time will be required and is being considered in the monitoring of indicators for the Road Safety Framework to 2030.</p>	<p>number of casualties. It will also be able to provide analysis at a local authority level and capture rates of accidents by deprivation giving some measure of socio-economic disaggregation. Where possible, demographic sub group analysis will also be provided but this is dependent on data availability from Police Scotland.</p>
<p>Perception of safety travelling by public transport and active modes</p>	<p>Improved perception of safety.</p>	<p>Existing Data. Scottish Household Survey.</p>	<p>Data is already available for this indicator stretching back many years so there is historic trend data. Due to the change in the methodology of the SHS, data from</p>	<p>Sub-group analysis will be provided by age group; sex; disability status; ethnicity; religion or belief; household income; SIMD; and geography</p>

Indicator	Definition of Success	Data Source	Risk/Caveats	Data Breakdowns
			<p>2020's survey will not be directly comparable and therefore the continuity of the time series will be broken.</p> <p>2020 (and possibly beyond) data is also going skewed given restrictions on travel and changes to travel behaviour and attitudes as a result of the pandemic. There has been a consistently high level of concern expressed around using public transport due to transmission of the virus and ability to social distance which may come through in perceptions of safety. The implementation of pop up walking, wheeling and cycling routes may also have a positive impact, given they increase segregated walking, wheeling and cycling routes.</p>	<p>(local authority area or RTP level or urban/rural classification depending on the sample size). For other equalities groups characteristics such as sexual orientation, gender reassignment, and pregnancy and maternity, further analysis via qualitative methods or from other sources e.g. stakeholder groups will be required as these data for these groups in the SHS is either not collected or the sample sizes are too small to provide meaningful statistical data.</p>
Air Quality Measure	Improvement in Air Quality	Existing Data. Scottish Government.	<p>Summary data on air quality is available and published on the Scottish Government website. This compiles data from 100 sites across the country.</p> <p>Given the nature of the indicator, there is not one single measure nationally. It is therefore not possible to produce a single measure and it will be necessary to look across the range of sites for evidence of performance.</p>	<p>The data is searchable at a postcode level which provides geographic disaggregation. It may also be possible to use postcode data to disaggregate by deprivation and areas where traffic volumes are highest however this is not published on the site.</p>

Indicator	Definition of Success	Data Source	Risk/Caveats	Data Breakdowns
			<p>It is also likely that there will be little fluctuation in the data over time though this may be more pronounced if further disaggregation of the data is analysed on the basis on deprivation and proximity to high volumes of traffic.</p>	



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