



# STRATEGIC TRANSPORT PROJECTS REVIEW

PROTECTING OUR CLIMATE  
AND IMPROVING LIVES



## Appendix I: Recommendation Appraisal Summary Tables

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# 1. Detailed Appraisal Summary

An 'Appendix I: Recommendation Appraisal Summary Tables (ASTs) Explanatory Note' accompanies this AST.

## 1.1. Recommendation 29 - Access to Argyll (A83)

### Recommendation Description

This recommendation focusses on improving resilience for strategic and local traffic currently using the A83 through the continued development of a more reliable route. The existing route is prone to closures, particularly on the 'Rest and Be Thankful' section, due to landslides and debris flows which can affect both the A83 Trunk Road and the Old Military Road further down the slope.

Measures within this recommendation would consist of new or improved road infrastructure providing a more resilient connection to the Kintyre/Cowal peninsulas and see continuation of the work [Transport Scotland has been developing to deliver an alternative route to the existing A83<sup>i</sup>](#). Medium and long term solutions are required in parallel with the ongoing short term mitigation measures.

A medium-term solution looks to provide a more resilient diversion route through Glen Croe. Options being considered include new diversion route on the southern sides of Glen Croe, including possible use of the existing forestry track, and possible improvements to the Old Military Road to deliver a safe, proportionate and more resilient diversion route for use if the A83 is closed.

Work should continue the development of the long-term solution which is considering five possible route options. These possible route options include the construction of new lengths of carriageway, viaducts, tunnels and debris flow shelters as well as considering further landslide mitigation work.

Public feedback, correspondence from local and regional businesses, and other stakeholder consultation has stressed the need to move quickly in relation to improvements in the vicinity of the 'Rest and Be Thankful'. Speed of delivery has therefore been a key criteria for assessment regarding options for more extensive measures considered under this recommendation and in identifying which measures have been progressed so far.

## 1.2. Relevance

### Relevant to Climate Change Adaptation and Resilience

The UK Climate Projections developed by the [Met Office show that over the last few decades Scotland has experienced a warming trend, shifting rainfall patterns and rising sea levels<sup>ii</sup>](#):

Temperature - Scotland's 10 warmest years on record have all occurred since 1997. The average temperature in the last decade (2010-2019) was 0.69°C warmer than the 1961-1990 average, and the warmest year on record was 2014;

Rainfall - There has been an increase in rainfall over Scotland in the past few decades (with an increasing proportion of rainfall coming from heavy rainfall events). The annual

average rainfall in the last decade (2010-2019) meant the overall yearly climate was 9% wetter than the 1961-1990 average (with winters 19% wetter); and

Sea level rise – Mean sea level around the UK has risen by approximately 1.4 millimetres per year from the start of the 20th century.

The recommendation Trunk road and Motorway network climate change adaptation and resilience (31) outlines the impacts already being experienced and future projections, with the A83 ‘Rest and Be Thankful’ identified as posing a high level of risk due to landslides and debris flow hazards.

### 1.3. Estimated Cost

#### £101 million-£500 million Capital

Based on the options taken forward at this stage, capital costs for improving the A83 are anticipated to between £268 million and £860 million (at 2020 prices).

The cost of the scheme would be refined as it moves through the design development process and more information becomes available, including the potential effects of external influences such as inflation rates.

The improvement would form part of the trunk road asset and require to be maintained within Transport Scotland’s ongoing maintenance budget.

### 1.4. Position in Sustainable Investment Hierarchy

#### Targeted infrastructure improvements

This recommendation would also contribute to five of the 12 NTS2 outcomes, as follows:

- Provide fair access to services we need;
- Adapt to the effects of climate change;
- Get people and goods to where they need to get to;
- Be reliable, efficient and high quality; and
- Be safe and secure for all.

### 1.5. Summary Rationale

#### Summary of Appraisal

	TPO					STAG					SIA				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Low Scenario	0	+	+	++	+++	-	+	+	++	+	-	+	+	+	+
High Scenario	0	+	+	++	+++	-	+	+	++	+	-	+	+	+	+

This recommendation makes a positive contribution to the STPR2 Transport Planning Objectives (TPOs) with significant positive impacts associated with reliability and resilience of the trunk road network. Costs would be influenced by the scale and complexity of individual options with larger scale options, such as that within the vicinity of the A83 ‘Rest and Be Thankful’, likely to be expensive. Whilst negative environmental effects are anticipated at a local level, it is expected that it would be possible to reduce these effects through design development and mitigation measures at subsequent assessment stages. The improvements are expected to have a positive impact against all other criteria and

strong public support overall.

Details behind this summary are discussed in Section 3, below.

## 2. Context

### 2.1. Problems and Opportunities

This recommendation could help to tackle the following problems and opportunities:

#### Relevant Problem & Opportunity Themes Identified in National Case for Change

- **Adapting to Climate Change:** climate change directly affects the transport sector through the increasing number of more severe and frequent extreme weather events and the disruption they cause to the transport system. Disruption often disproportionately impacts vulnerable communities with fewer and less resilient transport options and can lead to significant disruption and high economic costs.
- **Productivity:** whilst Scotland’s productivity level is not solely driven by the efficiency of its transport system, strengthening transport connectivity between businesses by increasing the resilience of the transport network reduces costs and increases productivity, thus generating higher levels of economic growth.
- **Trade and Connectivity:** transport is crucial for trade and competitiveness, within Scotland, across the UK and internationally.
- **Safety and Security:** Scotland’s transport system needs to be safe. Whilst the [number of road accident casualties reduced by 11% between 2017 and 2018](#)<sup>iii</sup>, the number of fatalities has increased.
- **Resilience:** a key challenge is providing a transport system that is resilient and speedily recovers from disruption, thus minimising impacts of delayed journeys on networks and users.

### 2.2. Interdependencies

This recommendation has potential overlap with other STPR2 recommendations and would also complement other areas of Scottish Government activity.

#### Other STPR2 Recommendations

- Trunk road and motorway safety improvements to progress towards ‘Vision Zero’ (30);
- Trunk road and motorway climate change adaptation and resilience (31); and
- Trunk road and motorway renewal for reliability, resilience and safety (32).

#### Other areas of Scottish Government activity

- [National Transport Strategy](#) (NTS2)<sup>iv</sup>
- [Revised Draft Fourth National Planning Framework](#) (Revised Draft NPF4)<sup>v</sup>
- [Strategic Road Safety Plan](#) (2016)<sup>vi</sup>
- [Scotland’s Road Safety Framework to 2030](#)<sup>vii</sup>
- [Infrastructure Investment Plan 2021/22 – 2025/26](#) (IIP)<sup>viii</sup>
- [Climate Change Plan 2018-32 Update](#)<sup>ix</sup>
- [Climate Change \(Emissions Reduction Targets\) \(Scotland\) Act 2019](#)<sup>x</sup>
- [Climate Change Adaptation Programme 2019-2024](#)<sup>xi</sup>

### 3. Appraisal

This section provides an assessment of the recommendation against:

- STPR2 Transport Planning Objectives (TPOs);
- STAG criteria;
- Deliverability criteria; and
- Statutory Impact Assessment criteria.

The seven-point assessment scale has been used to indicate the impact of the recommendation when considered under the ‘Low’ and ‘High’ Transport Behaviour Scenarios (which are described in Appendix F of the Technical Report).

#### 3.1. Transport Planning Objectives

<b>1. A sustainable strategic transport system that contributes significantly to the Scottish Government’s net-zero emissions target</b>	
<b>Low Scenario</b>	<b>High Scenario</b>
0	0
<p>Improving the resilience of the A83 route would reduce the need for lengthy diversions, helping to reduce emissions through reductions in vehicle-kilometres travelled during closures and positively contributing to the Scottish Government’s climate change commitments. Whilst this could (to a certain extent) be countered by emissions from a potential increase in traffic due to the provision of more resilient road infrastructure, this would lessen as vehicles transition from fossil fuel consumption.</p> <p>As a result of the focus on interventions that upgrade the existing road asset without a material impact on capacity, this recommendation is anticipated to have a neutral impact on this objective in both the Low and High scenarios.</p>	

<b>2. An inclusive strategic transport system that improves the affordability and accessibility of public transport.</b>	
<b>Low Scenario</b>	<b>High Scenario</b>
+	+
<p>Addressing resilience on the road network would improve the reliability of bus services, albeit benefits would be limited due to low levels of bus usage in the area.</p> <p>This recommendation is anticipated to have a minor positive impact on this objective in both the Low and High scenarios.</p>	

#### **3. A cohesive strategic transport system that enhances communities as places,**

<b>supporting health and wellbeing.</b>	
<b>Low Scenario</b>	<b>High Scenario</b>
+	+

Improving resilience of the A83 could have a positive effect on communities through improving the resilience and reliability of their access to employment, education and services, all of which support health and wellbeing. Key opportunities for the improvement to address resilience at the A83 ‘Rest & Be Thankful’ include green infrastructure and the promotion of active travel, although the impact of these on local communities is likely to be limited.

This recommendation is anticipated to have a minor positive impact on this objective in both the Low and High scenarios.

<b>4. An integrated strategic transport system that contributes towards sustainable inclusive growth in Scotland.</b>	
<b>Low Scenario</b>	<b>High Scenario</b>
++	++

Reducing the impact of landslides at the A83 ‘Rest & Be Thankful’ would improve access between Argyll & Bute and key domestic and international markets. This would remove a potential barrier to inward investment in Argyll & Bute, helping to stimulate business activity and encourage more people to live, work, study and visit the region.

This recommendation is anticipated to have a moderate positive impact on this objective in both the Low and High scenarios.

<b>5. A reliable and resilient strategic transport system that is safe and secure for users.</b>	
<b>Low Scenario</b>	<b>High Scenario</b>
+++	+++

New or improved road infrastructure to reduce the impact of landslides or other events would result in improved actual and perceived safety for road users.

This recommendation is anticipated to have a major positive impact on this objective in both the Low and High scenarios.

### 3.2. STAG Criteria

#### 1. Environment

Low Scenario	High Scenario
-	-

See Strategic Environmental Assessment (SEA) section below.

This recommendation is expected to have a minor negative effect on this criterion in both the Low and High scenarios.

## 2. Climate Change

Low Scenario	High Scenario
+	+

This recommendation assists in improving the resilience of the transport network to the impacts of climate change, such as severe rainfall events, and so supports the reduced vulnerability to effects of climate change and ability to adapt as detailed in recommendation Trunk road and motorway network climate change adaptation and resilience (31).

Linking with the recommendation Trunk road and motorway network renewal for reliability, resilience and safety (32), improving the resilience of the A83 route would reduce the need for lengthy diversions, helping to reduce emissions through reductions in vehicle-kilometres travelled during closures and positively contributing to the Scottish Government’s climate change commitments. Whilst it is possible that this could be countered to some degree by emissions from a potential increase in traffic due to the provision of more resilient road infrastructure, this would lessen as vehicles transition from fossil fuel consumption.

This recommendation is expected to have a minor positive impact on criterion in both the Low and High scenarios.

## 3. Health, Safety and Wellbeing

Low Scenario	High Scenario
+	+

Improvements to reduce the impact of landslides on the A83 improve safety on the route. Reducing the occurrence of road closures due to accidents is also likely to have a minor positive impact on both actual and perceived personal security, as a result of fewer instances when car users are required to stop, drive slowly or reroute on an unfamiliar diversion route.

Disruption on the transport network can lead to missed hospital appointments and have an adverse impact on patients’ health and wellbeing. Improving the resilience of the A83 would help reduce these negative impacts.

There is potential for negative environmental impacts during construction and operation of the system, including on Visual Amenity, for example impacts from the construction



footprint of any new transport infrastructure. It is expected that it would be possible to reduce these effects through design development and mitigation measures at subsequent assessment stages.

This recommendation is expected to have a minor positive impact on this criterion in both the Low and High scenarios.

#### 4. Economy

Low Scenario	High Scenario
++	++

Improving the resilience of the A83 would limit the economic impact associated with disruptive events, reducing the need for lengthy detours thus reducing associated journey time and vehicle operating costs. Improvements in productivity generated by reduced travel times and a more competitive transport environment would also generate wider benefits.

The recommendation would help improve connectivity across the region, enhancing the region’s attractiveness as a place to work, live and visit, supporting sustainable economic growth.

There would be a beneficial impact to businesses and sectors reliant on the A83 to access domestic and international markets. The reliability and resilience of the route is integral to supporting opportunities to strengthen the reliability of supply chains locally and is particularly relevant to industries operating with ‘just in time’ supply chains. The improvements could also remove barriers to investment and improve access to labour markets, potentially helping support growth in a number of key sectors in the region and helping to arrest population decline.

This recommendation is expected to have a moderate positive impact on this criterion in both the Low and High scenarios.

#### 5. Equality and Accessibility

Low Scenario	High Scenario
+	+

The impacts of climate change on the A83 have a bearing on the ability of communities to access employment, education and services due to full/partial route closures and diversions. This can have an impact on all users of the trunk road, including drivers of private vehicles, public transport services as well as users of active travel routes that form part of the network. It could also benefit those who are more reliant on public transport such as the elderly, children, young people, women and certain ethnic minority groups.

This recommendation has the potential to reduce social exclusion within the region by providing better connections to remote and rural areas.

Improving transport connections is expected to reduce transport costs and be a catalyst for increased investment in the region. Increased employment opportunities and increases in families' income would help make travel more affordable.

Also refer to EqIA/ICIA/FSDA/CRWIA Assessment in the next section.

This recommendation is expected to have a minor positive impact on this criterion in both the Low and High scenarios.

### 3.3. Deliverability

#### 1. Feasibility

Whilst there is significant experience of delivering the type of interventions in this recommendation within Scotland and elsewhere, the local topographical, climatic and geological challenges that have given rise to a history of landslides in the region, particularly within the vicinity of the A83 ‘Rest and Be Thankful’, continue to present a number of future uncertainties surrounding ground stability.

The feasibility is influenced by the risks identified as schemes move through the design development process. Risks associated with the A83 ‘Rest and Be Thankful’ would be explored further as part of the design development work.

Depending on details surrounding final designs, Public Local Inquiries could be required.

#### 2. Affordability

Costs would be influenced by the scale and complexity of individual options. Larger scale options such as that within the vicinity of the A83 ‘Rest and Be Thankful’ are likely to be expensive due to specific local issues, such as the requirement for structures, the purchase of land and localised ground conditions.

#### 3. Public Acceptability

Landslides and resulting road closures in the region, particularly those associated with the A83 ‘Rest and Be Thankful’, have significantly impacted residents and businesses within Argyll for years, leading to a view that economic growth may, in part, be constrained due to a lack of reliable and resilient transport infrastructure and poor connectivity.

Investment resulting in increased resilience is therefore likely to be met with strong public support within the region.

As details emerge, there is potential for negative perceptions at an individual scheme level particularly by those who are directly affected by proposals, which may lead to Public Local Inquiries.

### 3.4. Statutory Impact Assessment Criteria

#### 1. Strategic Environmental Assessment (SEA)

Low Scenario	High Scenario
-	-

Adapting or improving the resilience of the trunk road and motorway network to the effects associated with climate change (flooding, landslides and erosion) should lead to an

improvement in the reliability, accessibility and safety of the network. This recommendation would therefore be likely to support the SEA objective related to safety (Objective 7). It is also likely to support Objective 2, due to increased adaptation and resilience of the trunk road and motorway network to current and future climate change.

While this recommendation is not expected to have a notable impact on mode shift, a focus on adapting the existing network is not anticipated to increase traffic volumes or associated emissions. It is therefore not anticipated that this recommendation would have a negative effect on greenhouse gas emissions (Objective 1). Similarly, the unlikely increase in the number of vehicles is not expected to have associated noise and vibration effects, although this may depend on the proximity of noise sensitive receptors (Objective 5).

While there is the potential for a negative effect resulting from the use of natural resources associated with asset improvements (Objective 9), this should be balanced against potentially reducing the requirement for materials for recurring repairs, with focus given to the source and type of materials/natural resources used in construction.

Any opportunity to employ methods for decarbonisation of construction through innovation in design, procurement and construction, should be identified as part of the design and development process, whilst adhering to relevant standards. Similar work undertaken to date in exploring options for decarbonising construction on other road schemes could be used as a basis for developing these methods.

There is potential for negative environmental effects during the construction and operation of road schemes related to adaptation and resilience on the water environment, biodiversity, soil, cultural heritage and landscape and visual amenity (Objectives 10 to 14).

All environmental effects would be determined by the location, complexity, scale and design of individual options.

It is recommended that further environmental assessment is undertaken as options develop to identify potentially significant location-specific environmental effects and mitigation where appropriate. This may identify mitigation opportunities, such as the re-use of construction materials, which would align with circular economy principles and may also present opportunities for improving biodiversity in the long-term with adoption of the principle of securing positive effects for biodiversity.

Due mainly to the construction footprint and use of resources during the construction phase, this recommendation is expected to have a minor negative effect on this criterion in both the Low and High scenarios.

## 2. Equalities Impact Assessment (EqIA)

Low Scenario	High Scenario
+	+

Improved resilience and connectivity could potentially provide beneficial impacts for a range of protected characteristic groups by improving access to employment, education and services. It could also benefit those who are more reliant on public transport such as

the elderly, children, young people, women and certain ethnic minority groups.

This recommendation is expected to have a minor positive impact on this criterion in both the Low and High scenarios.

### 3. Island Communities Impact Assessment (ICIA)

Low Scenario	High Scenario
+	+

Increasing the resilience of the A83 and enhancing connectivity to the Kintyre/Cowal peninsulas would improve access to key ferry terminals to the Inner Hebrides islands including Islay and Jura. Improving connections to the islands could benefit key business sectors including whisky, aquaculture and tourism and provide indirect benefits for island communities.

This recommendation is expected to have a minor positive impact on this criterion in both the Low and High scenarios.

### 4. Children’s Rights and Wellbeing Impact Assessment (CRWIA)

Low Scenario	High Scenario
+	+

One in five children in Argyll and Bute are living in poverty, and approximately 16% of children are in families with limited resources. Improved transport connections would be expected to increase families’ income as a result of increased investment in the region increased employment opportunities and a reduction in transport costs.

This recommendation is expected to have a minor positive impact on this criterion in both the Low and High scenarios.

### 5. Fairer Scotland Duty Assessment (FSDA)

Low Scenario	High Scenario
+	+

Providing a more resilient network has the potential to bring economic benefits through improving connectivity to parts of Western Scotland currently experiencing economic challenges. Improved resilience and enhanced connectivity for rural and remote communities may contribute towards addressing many of the structural challenges that these areas face by removing barriers to investment and helping to arrest population decline.

Benefits would likely be felt to a lesser extent by individuals who do not own or have

access to a private car (which tends to be linked to more socio-economically disadvantaged groups) as well as those who are unable to drive.

This recommendation is expected to have a minor positive impact on this criterion in both the Low and High scenarios.

## References

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- <sup>ix</sup> Scottish Government, Securing a green recovery on a path to net zero: climate change plan 2018–2032 – update, 2020, <https://www.gov.scot/publications/securing-green-recovery-path-net-zero-update-climate-change-plan-20182032/>
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- <sup>xi</sup> Scottish Government, Climate Ready Scotland: climate change adaptation programme 2019-2024, 2019, <https://www.gov.scot/publications/climate-ready-scotland-second-scottish-climate-change-adaptation-programme-2019-2024/>