HITRANS

Investment in Lifeline Rural Roads
Individual Scheme Appraisals – Salen to Tobermory
September 2004

Halcrow Group Limited

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Halcrow Group Limited
16 Abercomby Place Edinburgh EH3 6LB
Tel +44 (0)131 272 3300 Fax +44 (0)131 272 3301
www.halcrow.com

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16 Abercomby Place Edinburgh EH3 6LB
Tel +44 (0)131 272 3300 Fax +44 (0)131 272 3301
www.halcrow.com

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Contents Amendment Record

This report has been issued and amended as follows:

Issue	Revision	Description	Date	Signed

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1 Introduction (Salen to Tobermory)

1.1 ***Background***

1.1.1 HITRANS, the Highlands and Islands Strategic Transport Partnership, commissioned Halcrow Group Ltd to undertake a study to support the campaign for further investment in lifeline rural roads.

1.1.2 The study was split into two stages. Stage One undertook an extensive consultation process to evaluate the issues surrounding lifeline roads including key problems and constraints facing rural communities. The aim of the second stage was to carry out an economic appraisal of nine designated routes in order to bolster the findings of the initial research such as to make an economic case for sustainable increases in investment in lifeline roads.

1.1.3 This report represents part of the second stage of the project. It presents, in full, the economic assessment carried out on the proposed Salen to Tobermory road improvement scheme. It does not seek to encompass all the wider issues involved within the study and does not present the methodology. As such it should be read in conjunction with the main 'Investment in Lifeline Rural Roads: Stage Two Final Report'[1].

1.2 ***Report Structure***

1.2.1 **Section 2** presents the contextual background to the scheme. It also assesses the existing road conditions and the proposed scheme enhancements;

1.2.2 **Section 3** presents an assessment of the likely impacts of the scheme;

1.2.3 **Section 4** presents the Transport Economic Efficiently (TEE) analysis;

1.2.4 **Section 5** assess the business survey responses for the Salen to Tobermory route;

1.2.5 **Section 6** presents the Economic Activity Locational Impact (EALI) analysis; and

1.2.6 **Section 7** presents the conclusions.

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[1] Halcrow (2004)

2 Background (Salen to Tobermory)

2.1 ***Contextual Background***

2.1.1 The A848 is part of the primary road network on Mull. Along with the A849 (from Salen to Iona) it provides the main transport artery around the island. The A848 links Tobermory, the main town and tourism centre on the island, to Craignure, which provides the main ferry route to Oban. In addition the ferry services operating from Tobermory to Kilchoan and Fishnish to Lochaline are accessed from this route. Figure 1 presents a map of the route.

2.1.2 Tobermory is over 30km from Craignure Ferry, which in turn involves a 40-minute crossing to Oban to reach the mainland. The journey time therefore places it at a distance from the Central Belt equivalent to that of the most northerly parts of the Scottish mainland. Tobermory is currently the only major island capital, other than the Western Isles, that is not served by a modern double-track road.

2.1.3 The A848/A849 is the sole route within the island that is not subject to a 12-tonne weight and width restriction. As a result any fully loaded HGV deliveries for the north of the island have to be taken to Tobermory to be split down into smaller loads. Conversely the same is also true for exports.

2.1.4 Large sections of the A848/A849 corridor were upgraded in the 1970s from single to double track. However, funding restrictions, both at that time and since, have meant that much of the A848 north of Salen remains single track (estimated at 80%). Most recent scheme upgrades have tended to concentrate on improving provision in and around Tobermory, meaning that the route itself from Salen suffers from high journey times.

2.2 ***Local Economy***

2.2.1 The Scottish Census Records On-Line (SCROL) data (2003) (presented in Section 4.4 of the main report) indicates that North Mull has a population of around 1,600 permanent residents. Just fewer than 1,000 of these are estimated to be within Tobermory, making it the main local centre.

2.2.2 Employment levels within North Mull are estimated at around 900, with again a high proportion of these based in and around Tobermory. The majority of jobs within the area are in the tertiary sector.

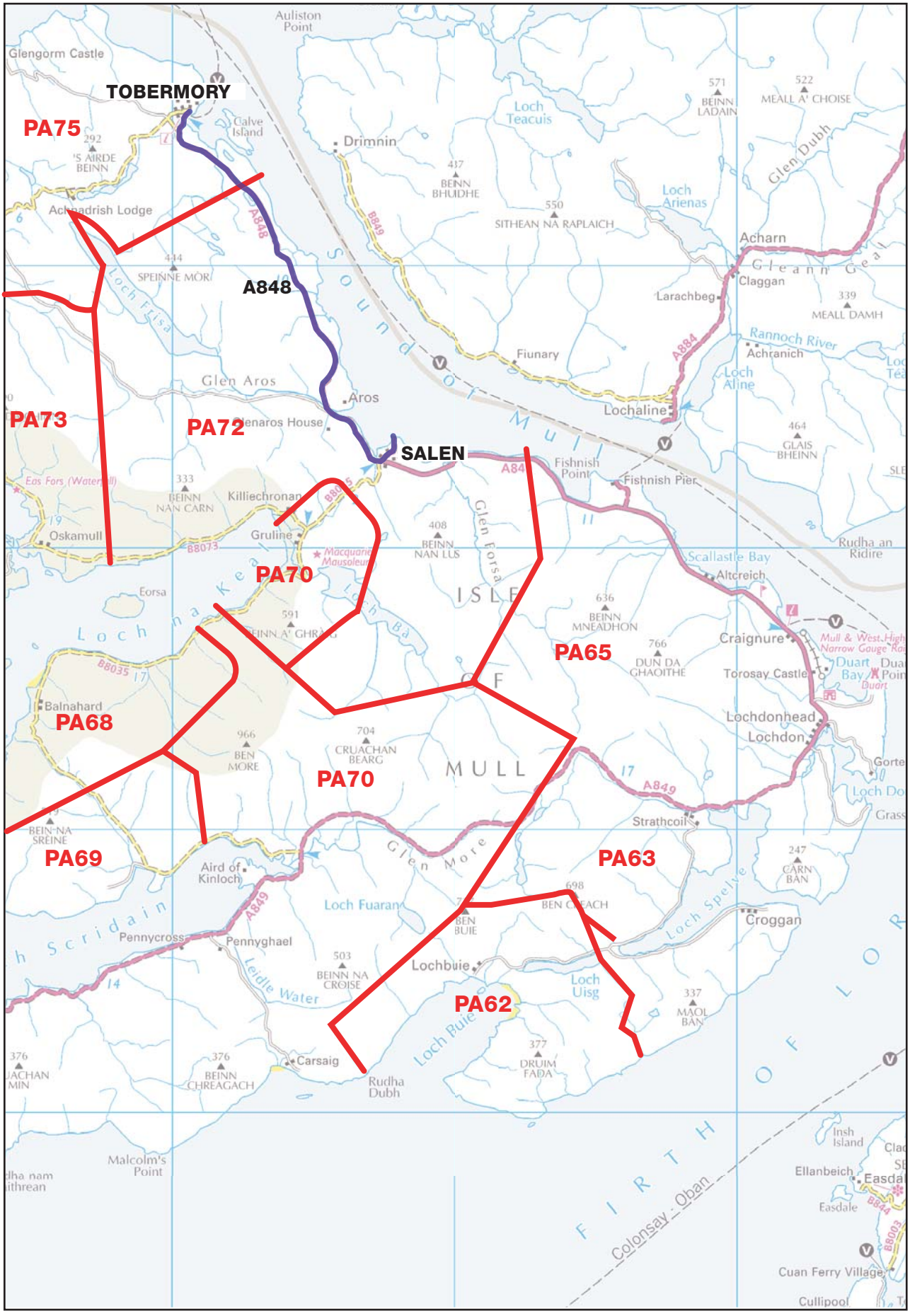


Figure 1: A848 SALEN TO TOBERMORY

2.2.3 Unemployment levels within North Mull are estimated at 4.9%. This compares to the rate for Scotland as a whole of just under 4%, indicating that North Mull suffers from lower than average opportunities for employment.

2.2.4 The indices of deprivation (presented in Table 4.3 of the main report) imply that North Mull is a relatively affluent in comparison to the rest of Scotland. However, it is generally recognised that these data are distorted by the relatively high levels of car ownership that typify communities within the Highlands and Islands of Scotland. The remote nature of these communities and low levels of public transport services result in private car ownership becoming a necessity.

2.2.5 An alternative approach used to assess economically and socially disadvantaged parts of the Highlands and Islands is the Fragile Areas definition. A full description of this can be found in Section 4.4.8 of the main report, but in summary, it uses 12 criteria across three categories: geographic, demographic and economic, to assess whether an area can be considered economically and socially disadvantaged. Mull is classified as a 'Fragile Area' under this assessment process.

2.2.6 Tourism is Mulls primary industry and has experienced considerable growth of late. This results in a large seasonal variation in the population of the island. It generally remains the case, however, that people only stay for short periods, typically one night, with many visitors primarily interested in trips to Iona, the island located off the southeast peninsula of Mull. Therefore, whilst Tobermory is the main tourist centre on Mull itself, its tourism potential is considered to remain underdeveloped.

2.2.7 Forestry is also well established on the island with a considerable extraction programme. Improvements to many of the minor roads on the island have enhanced accessibility to sites. The Forestry Commission also constructed a berthing facility in 1994 on the A849 at Pennygown. This facilitates the transhipment of timber by barge to processing plants in Ayrshire and Ireland.

2.3 ***Development Plans***

2.3.1 A key target for development with Mull remains the tourist industry. Encouraging longer trips to the island is an important aspect in expanding the market. Improving accessibility, both to and within the island, has been identified as a way of assisting in this process. Long-term options for servicing the outer islands include the possibility of more frequent ferry services by introducing short sea crossings to Tobermory, then overland to Craignure (A848) for the ferry to Oban.

2.4 ***Existing Road Conditions***

2.4.1 As described above this section of road provides the sole linkage from the ports in the south of the island [Craignure and Fishnish] to Tobermory. Currently around 80% of the route is single-track with an average carriageway width of around 4.5 metres. The provision of passing places is also considered to be inadequate with only one every 250 metres, on average.

2.4.2 The current route has poor vertical and horizontal geometry, which contributes to poor sightlines and a lack of overtaking opportunities. The condition of the road surface is also considered to poor. Narrow bridges, sub-standard drainage arrangements and low structural strength are further areas of concern.

2.4.3 The combination of the above factors leads to excessive route journey times, in particular for public transport services. This leads to substantially higher costs for commercial operations. The only secondary school on the island is in Tobermory, which requires pupils to be bussed in from outlying settlements. The condition of the A848 lengthens journey times and decreases reliability for these trips.

2.4.4 During the summer months the volume of tourist traffic leads to even greater journey times. The increased frequency of vehicle conflicts along the single track sections results in a stop-start nature of journey.

2.4.5 The traffic count data provided by Argyll & Bute Council indicates that the average two-way 24-hour traffic flow across the year is 975 vehicles. This count was taken just north of Salen. It is estimated that almost all of these trips heading north from Salen will have a final destination in Tobermory. Some 90% of these trips have therefore been estimated to travel along the section of the scheme upgrade. This generates a two-way, 24-hour trips flow for the route of 878 vehicles.

2.5 ***Proposed Improvement Scheme***

2.5.1 The proposed scheme is significant in scale with an estimated scheme cost in the region of £10.0M across the 10km route. This gives an estimated cost per km of £1.0M.

2.5.2 The proposed scheme works are to upgrade the 10km section north of Salen from single track to double track, providing a standard 6-metre wide carriageway. This will ensure double track road provision from Craignure to Tobermory and remove the requirement for passing places.

3 Assessment of Scheme Impacts (Salen to Tobermory)

3.1 ***Impact on Journey Times and Reliability***

3.1.1 Data provided by the Argyll & Bute Council indicates that average speeds across the route from Salen to Tobermory are currently around 30km/hr. This is a reflection of the fact that around 80% of the route is single-track.

3.1.2 The Council believes that the upgrade of the 10km section from single to double track, along with enhancements to lines of sight and the provision of additional passing places, will allow a much smoother progression of traffic along the route. They estimate that average journey times between Salen and Tobermory could be reduced by 12 minutes. This would translate to a journey time of 8 minutes against the current time of 20 minutes. This represents a 60% reduction in average journey time.

3.1.3 The estimated improvement in journey time would translate to an average speed across the route of just over 75km/hr, a significant enhancement on the current conditions.

3.1.4 Improvements in journey time reliability are also expected as a result of the reduction in traffic conflicts. The stop-start nature of trips along the route would be removed and therefore variations in journey times should be significantly reduced. It is estimated that 'average delay' (as described in Section 3.4.15 of the main report) could fall by as much as 4 minutes per trip.

3.1.5 Vehicle operating costs are anticipated to fall as a result of higher average speeds along the route and improved road surface conditions. Fuel costs would fall as a result of the shorter journey times with less requirement to accelerate and decelerate along single track sections. Non-fuel costs would fall as a result of less wear and tear on vehicles through improved road surfacing. Overall vehicle operating costs (as described in Section 3.4.7 of the main report) have been estimated to fall by around 14 pence per existing trip.

3.2 ***Diversionary Impacts***

3.2.1 The A848 from Salen to Tobermory is not considered to offer an alternative route to road-based trips between any given origin–destination pairs. As such the

proposed upgrades to the route is considered unlikely to have any impact on traffic diverting from other roads to take advantage of the reduced journey times and improved reliability on the A848.

3.3 ***Generated Traffic***

3.3.1 Section 3.4.18 of the main report provides details of the methodology undertaken to assess the likely levels of generated traffic. To summarise, within the TEE analysis a journey time elasticity of -0.2 has been applied i.e. a 10% reduction in journey time will result in a 2% increase in traffic flows through generated trips. This approach has been taken in order to incorporate a measure of generated traffic within the TEE analysis. A wider assessment of the impact of the schemes on economic activity and subsequent traffic generation is undertaken within the EALI analysis.

3.3.2 Applying a –0.2 elasticity to the forecast journey time saving of 60%, along with a base flow of 878 vehicles, gives a forecast traffic generation of 105 vehicle trips per day.

3.4 ***Accident Reduction Impacts***

3.4.1 The reported number of accidents along the A848 is not significant. There were no fatal accidents reported within the last five years, with three serious and seven slight accidents (see Table 4.6 of the main report).

3.4.2 Historical evidence tends to indicate that a large proportion of 'damage only' accidents are often not reported. Furthermore, data suggests that 'damage only' accidents make up a high proportion of accidents on single-track roads[2]. It is therefore feasible that a larger number of slight accidents may have occurred during the period than reported.

3.4.3 None-the-less, the level of accidents, reported and unreported, is unlikely to be substantial and therefore there is little margin for scheme benefits from accident reduction measures.

3.4.4 The scheme itself should help to reduce the potential for accidents, in particular serious injury ones between on-coming traffic. Upgrading from single to double-

[2] J.C. Tomlinson & A.M. Ross, "Accidents on Single Track Roads" 1988

track should reduce the likelihood of vehicle collisions. The Tomlinson and Ross (1988) paper suggests that 'damage only' accident rates are 10 times higher on single track routes than two lane routes of a reasonable standard. Being an entirely new section of road will ensure a much higher quality of carriageway providing significant safety benefits.

Table 3.1: Summary of Scheme and Estimated Impacts (Salen - Tobermory)

Description of Scheme Upgrade	10km upgrade from single to double track Estimated scheme costs = £10.0m Scheme cost per km = £1.0M	
Impact on Journey Times	It is estimated that journey times along the route could improve by an average of 12 minutes with 'average delay' decreasing by 4 minutes. Estimated existing JT = 20 min Estimated post-scheme JT = 8 min	
Diversionary Impacts	**Competing routes**	**Estimated diversion**
	None	Zero
Generated Traffic	Assumed journey time elasticity of –0.2 60% reduction in JT = 12% increase in traffic	
Accident Reduction Impact	Low levels of reported accidents Scheme should significantly improve safety levels	

4 Transport Economic Efficiency Analysis (Salen to Tobermory)

4.1 ***TEE Analysis***

4.1.1 As described above, the pre- and post-scheme average journey time data indicates that significant journey time savings may result from this scheme. The estimated 12-minute journey time saving, along with the 4-minute reduction in average delay, translates to an existing user benefit of just over 14 pence per vehicle trip plus 165 pence per person trip.

4.1.2 With the base volume of vehicle trips at 878 and vehicle occupancy of 1.41 this gives a central forecast for existing user benefits of £791k per annum.

4.1.3 Section 3.2 above describes the assessment of potential 'diversionary benefits' deriving from the scheme. It concluded that there was unlikely to be any diversion to the A848 after the scheme upgrade.

4.1.4 Section 3.3 above describes the assessment of potential 'generated trip' benefits deriving from the scheme. The central forecast of 105 trips per day translates into a generated user benefit of £48k per annum.

Table 4.1: TEE Results (Salen - Tobermory)

Base Trip Matrix (vehicle trips/day)	Average Journey Time Savings	Existing User Benefits (£k/yr)	Diversionary Impact (trips/day)	Diversionary User Benefits (£k/yr)	Generated Trips (trips/day)	Generated User Benefits (£k/yr)	Total Users Benefits (£k/yr)
878	12	791	0	0	105	48	**839**

4.1.5 Overall total user benefits are therefore estimated to be in the region of £839k per year.

4.2 ***TEE Sensitivity Testing***

4.2.1 Sensitivity tests have been carried out on the TEE results in order to illustrate the potential variation in scheme benefits. The central forecasts are based on the data inputs as described above.

4.2.2 The low forecasts assume that only half the estimated journey time-savings are actually achieved by the scheme. So rather than journey times along the A848 falling from 20 to 8 minutes the low forecast assumes a journey time of 14 minutes. In addition the base trips/day are assumed to be 25% lower. This impacts upon 'existing-user' benefits, 'diversionary-user' benefits and 'generated-user' benefits. Furthermore, the journey time elasticity applied to estimate generated traffic is assumed to be only –0.1.

4.2.3 The high forecast assumes an additional 20% reduction in journey times is achievable over-and-above that within the central forecast. So the journey time along the A848 is assumed to fall to just under 6 minutes. In addition the base trips/day are assumed to be 10% higher. Furthermore, the journey time elasticity applied to estimate generated traffic is assumed to be –0.3.

Table 4.2: TEE Benefits (£k/yr) – Central, Low, High Forecasts (Salen - Tobermory)

Central Forecast	Low Forecast	High Forecast
839	**302**	**1,130**

4.3 ***Present Value of TEE Benefits***

4.3.1 Table 4.3 indicates the present value of the TEE benefits over 30 years for the central, low and high forecasts.

Table 4.3: Present Value of Benefits (£M) - Central, Low, High Forecasts (Salen - Tobermory)

Central Forecast	Low Forecast	High Forecast
16.4	**6.3**	**23.5**

* assumes 3.5% discount rate

5 Business Survey (Salen to Tobermory)

5.1 ***Business Survey Data***

5.1.1 Section 5 of the main report describes the objective and methodology for undertaking the business survey. It further discusses the sample obtained and its representation of local businesses. In addition, it presents the results at an aggregate level, across all schemes, in order to evaluate general trends.

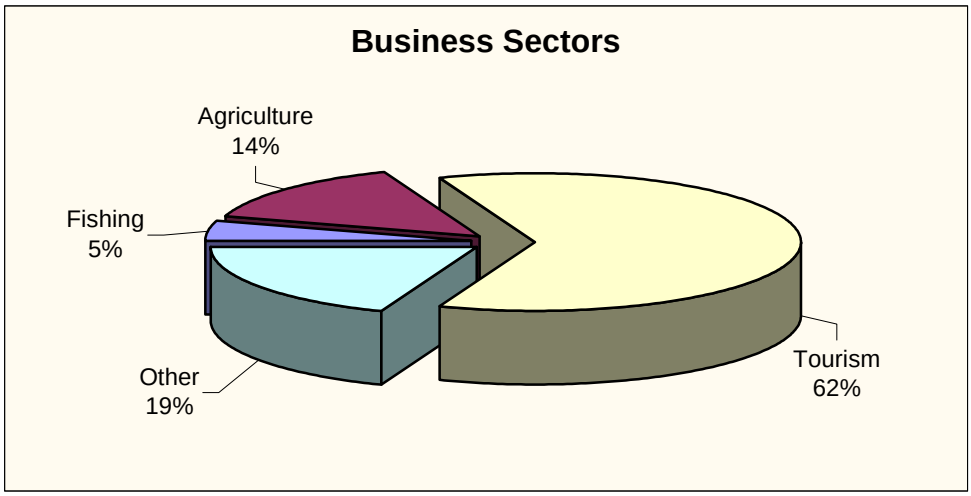
5.1.2 The section below presents the results for businesses that will be directly affected by the proposed Salen to Tobermory scheme. Whilst the overall sample size achieved (21 firms) does not allow for statistically significant analysis to be undertaken, it does provide an insight into how the scheme may affect local firms.

5.1.3 The results have been used to inform the analysis in Section 6 evaluating the economic activity and locational impacts of the scheme.

Type of Business (Salen – Tobermory)

5.1.4 The majority of businesses surveyed along the Salen to Tobermory route reported to be 'tourism' related organisations (62%), with a further 19% within 'other' sectors. None of the respondents were in the 'forestry' or 'transport' sectors.

5.1.5 With the exception of any 'forestry' sector representation, the sample can be considered roughly in line with the actual sectoral breakdown within North Mull, with a particularly large representation from the 'tourism' sector. The responses by sector are presented graphically below.

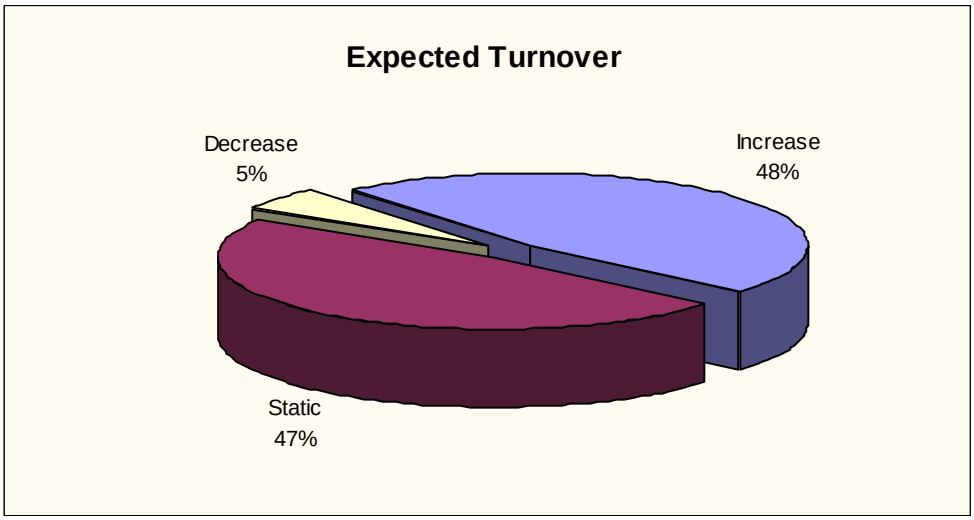


Turnover (Salen – Tobermory)

5.1.6 The table below summarises the annual turnover of firms surveyed in each of the business sectors. The majority of respondents quoted a turnover of less than £500k a year. One 'agricultural' firm reported an annual turnover of between £500k and £1m, whilst a single firm within the 'tourism' sector reported a turnover in the range £1m to £5m.

Turnover	Sector				
	Fishing	**Agriculture**	**Tourism**	**Other**	**Total**
0 - 50k	0	1	8	1	**10**
50k - 250k	1	1	1	2	**5**
250k - 500k	0	0	2	1	**3**
500k - 1m	0	1	0	0	**1**
1 - 5m	0	0	1	0	**1**
> 5m	0	0	0	0	**0**
No Response	0	0	1	0	**0**
Total	**1**	**3**	**13**	**4**	**20**

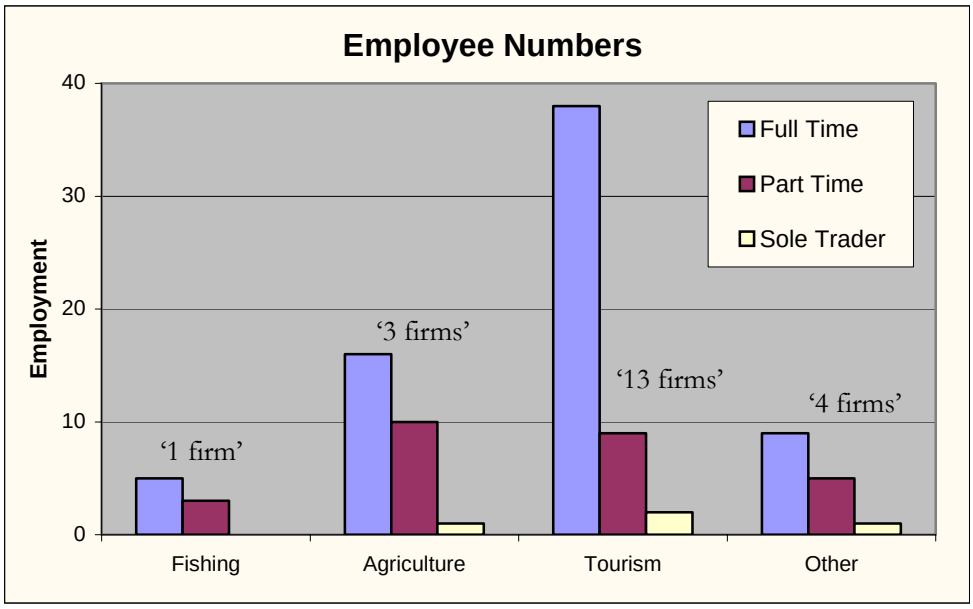
5.1.7 The following diagram indicates expectations amongst firms along the Salen to Tobermory route regarding future turnover. The results suggest that around half the businesses expect to witness an increase in turnover over the next three years, with only a small proportion predicting a decrease.



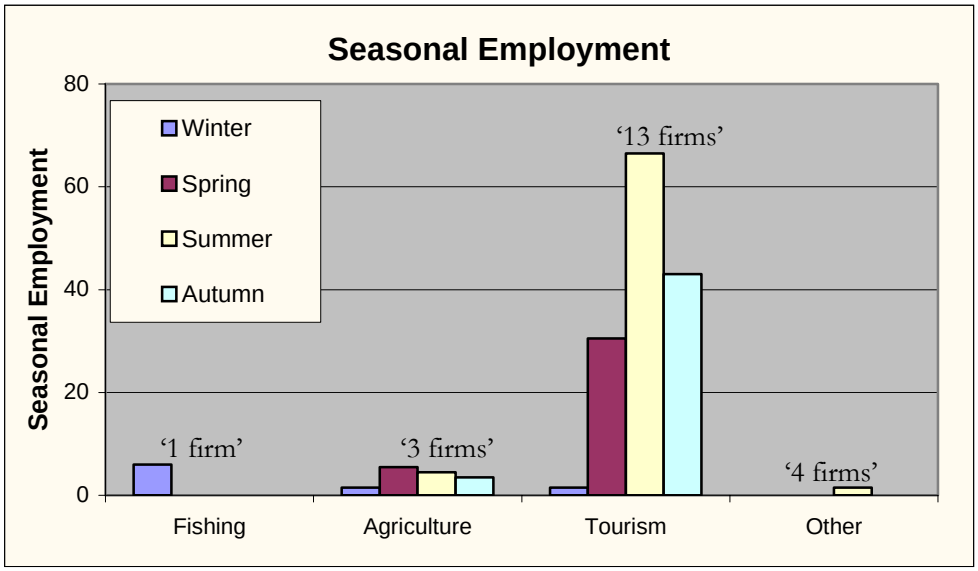
Employment (Salen – Tobermory)

5.1.8 In line with the data on turnover the majority of the businesses who responded employ a relatively small work force. Around 60% of firms employ less than ten staff; one firm reported to have 16 employees.

5.1.9 In total around 68 full-time and 27 part-time employees are represented. The histogram below presents the employment data by sector including the number of sole traders. The majority of full time employment was within the 'tourism' sector (38), closely followed by the 'agricultural' sector (16).



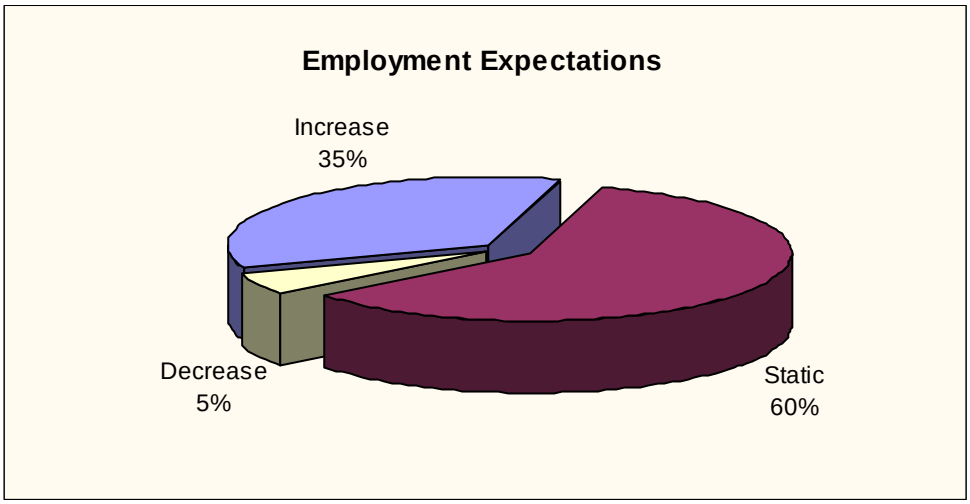
5.1.10 The split of seasonal employment across sectors is shown in the following diagram. The results highlight the seasonal variations inherent within the 'tourism' sector.



5.1.11 The employment expectations of firms over the next three years are highlighted in the diagram below. Most firms (60%) expect employment levels to remain

constant, while 35% expect employment to increase. The remaining 5% of respondents expect to see a decrease in staff numbers.

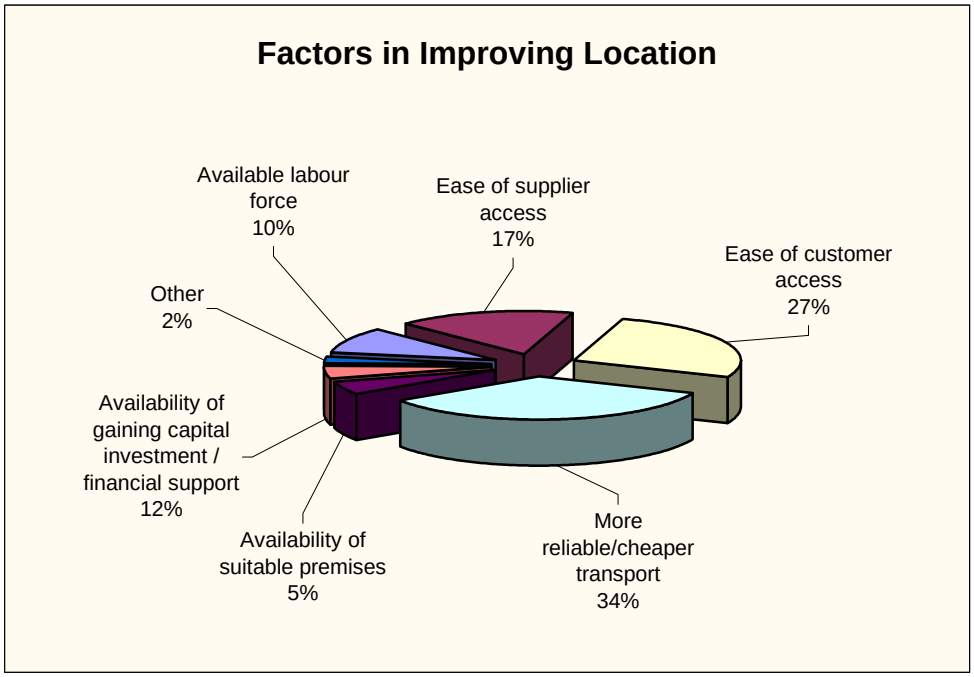
5.1.12 In comparison to expectations of turnover, firms generally predict a lower rate of growth in employment inputs than output. This indicates that firms expect to be able to obtain better utilisation of their current input capital.



Geographic Flexibility (Salen – Tobermory)

5.1.13 Businesses were asked about the feasibility of relocating as a measure of the geographically flexible of their operation. The overwhelming majority (86%) of companies reported the probability of relocating to be low. This demonstrates the limited geographical flexibility of businesses on the island.

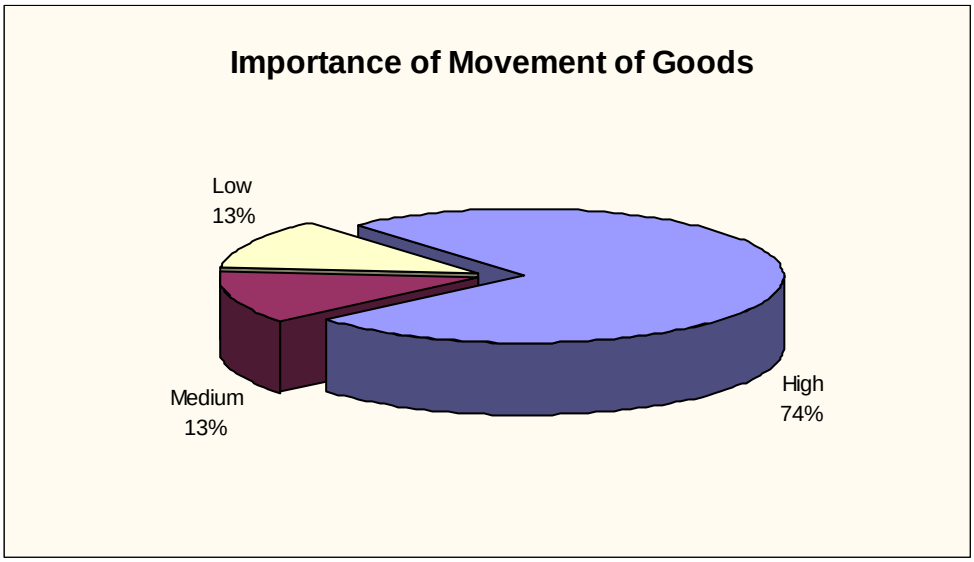
5.1.14 The diagram below highlights the relative importance of key factors in improving the location as a place to do business. Reliable/cheap transport and ease of customer access are considered to be the most important factors, along with the ease of supplier access.



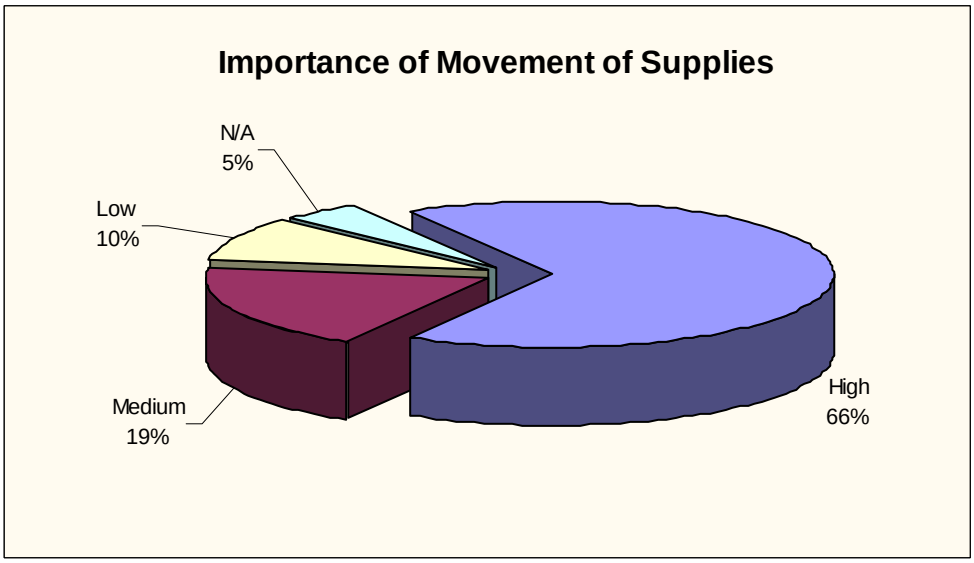
Transport (Salen – Tobermory)

5.1.15 In order to gauge the significance of transportation within a firms operation, respondents were asked to rate the importance of the movement of goods and supplies to their business.

5.1.16 The diagram below indicates the importance of the movement of goods. Some 74% of businesses responded that the movement of goods was of high importance. Furthermore, 73% of those who transport goods were unable to identify an alternative route to the A848 for the transport of their finished products.



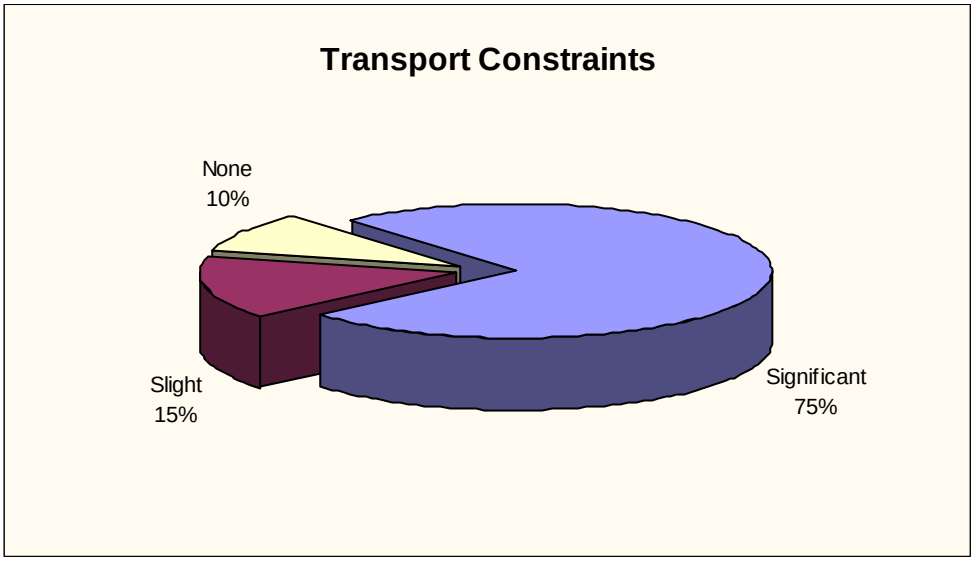
5.1.17 The diagram below indicates the importance of the movement of suppliers. Some 66% of businesses considered that the movement of supplies was of high importance and 95% responded that there was no alternative route to the A848 for them to import supplies.



5.1.18 Businesses were asked to estimate the percentage of their total costs that are associated with the transportation of goods and/or supplies. Fifteen respondents provided this data with eleven of them indicating transport costs were between 0%

and 20% of total costs. Three firms stated is was between 20% and 40% of total costs, with the other firm indicating that transport made up between 80% and 100% of their costs.

5.1.19 Respondents were asked whether their business currently faced any transport constraints. Around 90% of respondents stated that this was the case, with 75% considering these constraints to be significant.



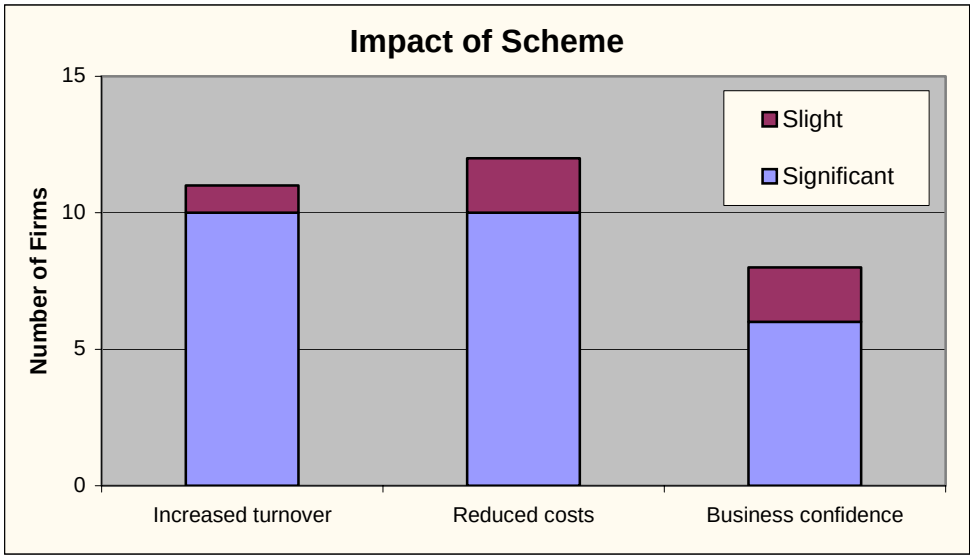
Scheme Impact (Salen – Tobermory)

5.1.20 All firms were given a broad description of the type of scheme upgrade proposed along A848[3]. Respondents were then asked to consider the likely impact of a road improvement upgrade upon their business.

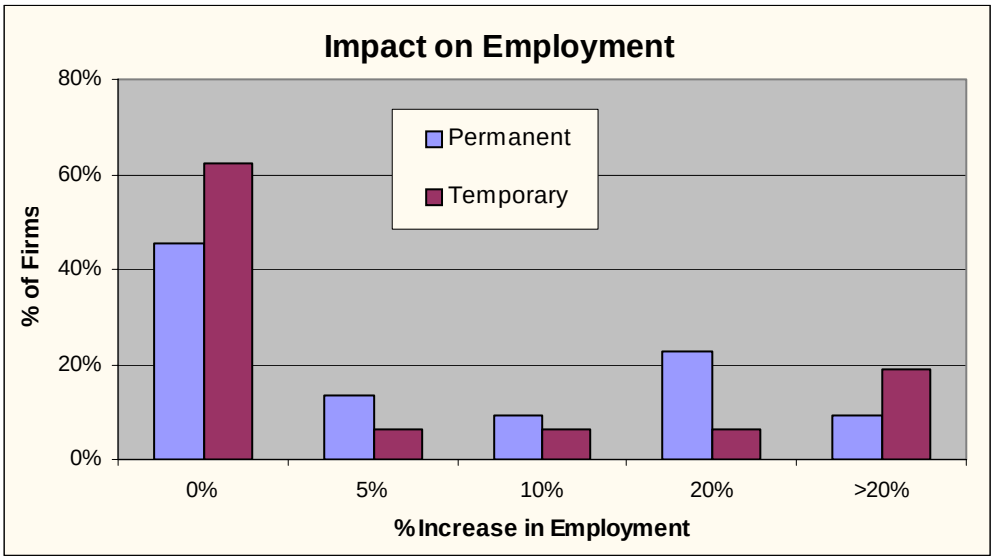
5.1.21 The figure below presents firms perceptions of the likely impact of a road improvement on business confidence, turnover and costs. A total of 12 firms (57%) expected road improvements to decrease costs, eleven firms (52%) expected road improvements to increase turnover and eight firms (38%) expected a significant boost in business confidence as a result of road improvements.

[3] At the time of the survey detailed scheme information was not available

5.1.22 Three companies did not expect any impact to their business as a result of a road improvement scheme.



5.1.23 Firms were further asked to quantify impacts of a road improvement upon the level of employment. Some 45% of firms considered that an improvement scheme would have little or no impact upon the number of permanent staff that they employed. However, 46% of respondents perceived that a road improvement scheme would increase their permanent employment levels by up to 20%. The following chart summarises the employment effects of the route improvements.


Impact on Employment
80%
60%
40%
20%
0%
% of Firms
Permanent
Temporary
0%
5%
10%
20%
>20%
% Increase in Employment

6 Economic Activity Locational Impact Analysis (Salen to Tobermory)

6.1 ***EALI Analysis***

6.1.1 The direct benefits to transport users have been estimated as part of the TEE analysis. However, the enhancements to the A848 may also generate additional benefits in terms of stimulating economic activity at locations served by the route.

6.1.2 The assessment process for determining any potential EALI benefits is not straightforward in the absence of modelling tools. The business survey provides insights into how firms may react to improvements in accessibility. However the relatively small sample sizes make the translation of this data into quantifiable forecasts unreliable. This section therefore seeks to highlight the likely areas where EALI benefits may be derived from the scheme and provide an indication of their magnitude. A detailed description of the EALI methodology is presented in Section 3.6 of the main report.

Importance of Lifeline Roads to Key Sectors

6.1.3 As part of the Stage One and Workshop phases of this study a key aspect was to identify the main problems, issues and constraints facing firms and organisations within remote communities. More specifically the process involved analysing the importance of 'lifeline' roads to the various industry sectors. One output from this process was the extent to which forestry, fish farming and tourism rely upon the quality of the local and regional road network.

6.1.4 The timber industry is a particular heavy user of lifeline rural roads. The main representative body, the Timber Transport Forum, has an on-going campaign to improve key timber routes. The success of this campaign is reflected in the recent commitment in the Partnerships document (Scottish Executive, 2003) to provide support for roads affected by timber production. The timber industry as a whole in the Highlands and Islands is expected to almost double over the next 10 years, adding considerable pressure to an already unsuitable transport network. Upgrades to lifeline routes serving existing and potential forestry sites are therefore likely to help stimulate economic activity in this sector.

6.1.5 The fish farming sector also stressed the importance of lifeline roads, both in bringing raw materials to the fish farms as well as shipping out produce to

domestic and international markets. A high proportion of fish farms are located along lifeline routes and thus the condition and upkeep of these routes is essential. Fish farming within the Highlands and Islands is facing considerable competition from abroad, which has driven down prices. As a result, quick and efficient deliveries are becoming increasingly essential in order for these firms to compete.

6.1.6 The tourism industry within the Highlands and Islands is a key employer within the region. Whilst tourist boards generally cite major exogenous variables as drivers for tourism performance the level of accessibility to the regions is an important factor. The condition of lifeline routes, in particular in providing access to ferry ports, is essential in encouraging visitors to access remote areas and thus stimulate economic activity.

6.1.7 Lifeline roads are therefore clearly an important aspect to the successful operation of these three key sectors within remote areas of the Highlands and Islands. Improved levels of accessibility along routes servicing existing or potential new sites for these industries can therefore be seen as likely to have a positive impact upon economic activity.

Salen to Tobermory Scheme Impacts

6.1.8 As has been demonstrated within the TEE analysis the proposed scheme will provide considerable improvement to the accessibility of Tobermory. Reduced journey times to the mainland ferry at Craignure will enhance the attractiveness of Tobermory not only as a place for firms to operate but also as a place to visit.

6.1.9 The increased reliability of travel times should also enable businesses to operate with greater efficiency, in particular in relation to journeys to the mainland, where interchange with the ferry services is paramount. The improved reliability should be most apparent during the summer period when the tourism traffic is greatest.

6.1.10 The business survey responses indicated the following key results:

- The majority of firms are geographically immobile and thus are heavily reliant on the local infrastructure and service provision, rather than being in a position to look for alternative locations to undertake their business;

- A very high proportion of firms are reliant upon the A848 for supplies and delivery of goods. Furthermore, the current levels of transport provision create serious constraints to their business operation. Equally, a 'more

reliable/cheaper transport network' would be the single most important factor in improving the desirability of the area for businesses;

- Over half the respondents consider that a road scheme improvement would significantly reduce their transport costs and allow them to expand turnover. In many cases this would also lead to a requirement for an expansion in the workforce by up to 20%.

6.1.11 Any reductions in journey times should help stimulate economic activity within all firms operating in and around Tobermory. Releasing the constraints to travel currently experienced along the A848, will have a positive impact upon costs, not only in terms of time saving but also greater reliability. This is of particular importance given that a substantial proportion of trips will be to the islands ferry terminals and hence are heavily time dependant. Releasing the constraints to travel is also of importance due to the geographical immobility of most of the firms in the area. In the long-term the improvements in accessibility should ensure greater economic and social prosperity for the main centre on the island

6.1.12 The transport improvements are anticipated to specifically enhance the operations of primary industries in North Mull. The forestry sector, in particular, will benefit through faster and more reliable transportation of goods (timber) to the shipping terminals. These firms rely on efficient transportation mechanisms for profitability. At present extraction of goods from the north of the island is restricted by the condition of the A848. The business surveys reiterated this by indicating that transport is a major constraint to business operation and that more reliable/ cheaper transport would represent a significant benefit. The removal of the restrictions would therefore provide a major boost to the viability of expanding these operations.

6.1.13 The proposed scheme improvements may further encourage the expansion of the forestry industry by allowing other areas, already identified within North Mull, to be opened up for felling as a result of greater accessibility. The business surveys indicate that road improvements are likely to encourage firms to expand their business operations.

6.1.14 Tourism within North Mull, whilst still being a key employer, has historically been seen to be restricted by the poor condition of the road network. Whilst similar islands such a Skye, Harris and Lewis, have prospered from investment in roads infrastructure, the north of Mull has remained relatively undeveloped. A particular

problem is the unsuitability of the current road provision for coaches, which results in many organised tourist trips being limited to the South of Mull.

6.1.15 The proposed double tracking off the route should open up tourist access to the north of the island and could allow the further development of the tourist market in Tobermory. The development of a second tourist centre on the island may encourage longer visitor trips to Mull. The proposed improvement to the A848 would also provide potential to promote the Oban - Craignure – Tobermory – Ardnamurchan – Mallaig – Skye route as an alternative tourist route around the isles. The economic impact of this could be considerable, although is dependant upon the quality of ferry access to the island. This has been improved recently, such that it is now the road network that is considered to be the constraining factor.

6.2 ***EALI Conclusions***

6.2.1 The prevailing economic conditions in North Mull suggest that the proposed upgrade to the A848 could have an important impact on promoting economic activity. Such is the scale of the upgrade it is likely to have a noticeable effect on journey times and journey reliability.

6.2.2 The EALI analysis indicates that the following key benefits could be derived:

- Provide stimulus to all firms operating in and around Tobermory by releasing the constraints to travel currently experienced along the A848. This will be encompassed in the form of reduced transportation costs through improved journey times and journey time reliability. These factors are of particular importance due to the geographical immobility of most of the firms in the area. In the long term this should ensure greater economic and social prosperity for the main centre on the island;

- Enhance the operating efficiency of the primary industries, in particular forestry, through faster and more reliable transportation of goods (timber) to the shipping terminals. The business surveys indicated that transportation is a major constraints to business operation and that more reliable/cheaper transport would represent a significant benefit;

- Encourage the expansion of the forestry industry by allowing other areas, already identified within North Mull, to be opened up for felling as a result of

greater accessibility. The business surveys indicate that road improvements are likely to encourage firms to expand their business operations;

- Promote tourism within the north of the island. Better accessibility along the A848 will encourage a larger proportion of visitors to the island to extend their trips and visit Tobermory. If coupled with a campaign to promote the town then this could have a significant impact upon the local economy.

6.2.3 Limitations within the data set make it is difficult to accurately assess GDP or employment impacts. The business survey responses suggest that over half of the firms consider that a road improvement would reduce their transport costs and, furthermore, that this would lead to an increase in turnover. Just over a third of the firms also felt that the improvement would provide a boost to their business confidence.

6.2.4 In terms of employment impacts the business survey responses suggest that for a proportion of firms the improvement could significantly enhance their operating efficiency thus allowing them to expand their workforce. This would represent a notable increase in employment and turnover within the area.

6.2.5 Other businesses indicated that they would absorb any reductions in the cost of transportation as increased profitability. This may be a reflection of the poor rates of return that some of these firms currently make from their operations. In such an instance the scheme enhancements could be considered to be ensuring the long-term security of these firms.

6.2.6 A number of the businesses survey responses also reiterated that, whilst the improvement to the A848 are both necessary and desirable, the major constraint to their business is the level of current ferry service provision. It was suggested that the road be upgraded in conjunction with the ferry facilities for maximum impact on tourist numbers, business performance and employment.

7 Conclusions (Salen to Tobermory)

7.1 ***Overall Scheme Evaluation Conclusions***

7.1.1 The aim of the Salen to Tobermory scheme is to improve the levels of accessibility to the north of Mull. The analysis has demonstrated that the current road provision acts as a constraint to both the primary industries, reliant on the route as a means of transporting goods, as well as the tourism industry, that require good accessibility to encourage visitors.

7.1.2 Direct transport benefits deriving from the journey time savings are estimated to be significant and may be of sufficient magnitude justify the proposed capital cost expenditure (£10.0M) by themselves. The present value of benefits over 30 years is estimated to be in the region of £16.4M, although there is considerable variation within the low and high forecasts (£6.3M - £23.5M).

7.1.3 Significant indirect impacts upon the local economy within North Mull are also anticipated. It is estimated that primary industries, in particular forestry, will benefit from the reduced transportation costs associated with enhanced road provision. The improved accessibility is likely to stimulate further interest in developing this market. The tourism industry should also be able to capitalise upon the improved accessibility to Tobermory as a promotional tool to encourage greater visitor numbers.

7.1.4 It is likely that the impact upon both the primary and tourism industries could be further enhanced through greater accessibility to the island itself via improved ferry services.

7.1.5 Accident rates along the A848 are not substantial indicating little potential for reduction benefits in this area. However, the scheme will have positive safety benefits through the removal of all single track roads and the provision of an enhanced carriageway.