TimberTransportForum

delivering solutions for a growing UK harvest

Timber Transport Forum response to the National Transport Strategy Review - call for evidence.

Timber Transport Forum July 2017

This paper sets out the evidence available to support the need for a programme of significant and ongoing investment in the modernisation of Scotland's rural transport infrastructure – particularly local roads – to support 21st century businesses and land uses, such as forestry and timber processing. As requested, it addresses the questions and is less than 10 pages long. The Timber Transport Forum is happy for this submission to be made public.

The Timber Transport Forum

The Timber Transport Forum is a voluntary partnership that supports forestry by ensuring that the timber industry can access our forests and take timber to market in a sustainable way. At the same time we seek to minimise the impact of timber transport on the public road network, on local communities and on the environment.

The Forum is made up of representatives from eleven regional timber transport groups from across Scotland and the North of England, as well as the Convention of Scottish Local Authorities, the forest industry associations (Confederation of Forest Industries, UK Forest Products Association and Forestry Contracting Association), Scottish Forest & Timber Technologies, Forestry Commission England, Scotland, Rail Freight Group, the Road Haulage Association and the Society for Chief Officers of Transportation in Scotland.

The Forum works through regional timber transport groups which are themselves partnerships of industry, local authorities and public agencies.

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1. Economic Growth and Inclusive Growth

Rural Scotland hosts 40% of all enterprises (43,000), and remote rural Scotland 16% (28,000 enterprises)[i]; this includes finance, services and professional industries. But, more than half of the enterprises are freight-demanding and freight intensive industries such as agriculture, forestry, fishing, mining and quarrying, manufacturing, construction, wholesale and retail, transport and storage. Rural tourism also puts substantial demands on transport infrastructure and must share the road space with rural freight and local communities.

A rural sub-group of Transport Scotland's Freight Logistics Advisory Group ScotFLAG is looking to develop information on the freight demand on the rural roads and relate this to the freight capacity but relies solely on voluntary industry input and has been offered no resources to support data collection and analysis.

Forestry

This response from the Timber Transport Forum will concentrate on the forestry and timber industries and offer evidence where it can, relevant to the National Transport Strategy.

The UK is the 3rd largest importer of timber in the world, importing two thirds of what it consumes.

Scottish forestry and the processing of Scottish grown timber is a major contributor to the nation's economy with a GVA of £771m and employing 19555 people[ii]. The forest resource also provides the only carbon sink for Scotland's carbon budget.

The industry relies on the local public road network for haulage of roundwood from forests to processors (sawmills, board mills etc).

The network of public roads that serves the timber industry can be viewed here[iii]. It covers approximately a third of the local rural roads in Scotland. Timber is brought onto the public road network at around 3000 places across Scotland and uses approximately 10,000km of road (within 12 rural local authorities) in reaching the trunk roads or destination. Most of the roads (65%) are minor roads – B, C and unclassified roads as well as a few 'minor' A roads (sometimes single- track A roads like the A897) reaching into the most remote areas. Most were constructed to their current form in the 1920s and 30s and they have limited load bearing capacity and challenging geometry for modern lorries.

Productive forestry is a relatively new land-use. Most of the forests have been planted since the 1950s with timber volumes from Scottish forests increasing from 1m tonnes/year in the 1970s to 7.5m tonnes/yr today. Substantial areas of private forestry were planted in the 1970s, 80s and 90s and much of the timber coming on stream in the next decade is from these newer areas of forestry. Volumes are predicted to continue to rise for the next two decades to around 10m tonnes/yr. [iv]

Rural Local Roads

Most single tracked roads were not deliberately engineered. They are barely wider than the timber lorries and the road verges and road edges are often the first elements to suffer damage. Where a road crosses sections of fill or soft peaty ground (common in the well-forested regions), the road itself flexes considerably and repeated lorry traffic can cause damage to the structure of the road requiring expensive re-construction. Road drainage needs improved, corners need widening and passing places are few and far between (and generally of a size suitable for cars, not lorries).

The condition of the minor roads is poor and declining with typically only 60% of the length of minor road used for timber transport in acceptable condition[v]. In some local authorities the road condition is much worse.

The timber industry voluntarily manages and controls timber traffic on weak roads by limiting the number and frequency of lorry trips, avoiding particular times and seasons and investing in lower impact vehicle technologies. Our good practice documents can be found here[vi]. This adds cost and limits the efficiency of the timber supply chain. It also creates a practical, costly and bureaucratic obstacle to timber haulage and, despite these measures, timber traffic impacts on road condition and on other road users.

Timber harvesting employs significant numbers of people but largely takes place in remote sites using contractors from across the region. The more recognisable employment benefits of the timber processing sector may be relatively distant from the forests in rural towns. The impact of lorries on minor roads around the forests can therefore be seen by local communities as a cost, rather than part of a wider economically-beneficial supply chain. As a result, both forest harvesting and the Scottish Government targets to expand the forest resource by 10-15,000ha per year can be perceived unfavourably by local communities and local councillors.

It is uncommon for infrastructure constraints to completely prevent timber getting to market. However poor access increases marketing costs and reduces management options and this may have multiple negative impacts and outcomes.

The costs of poor infrastructure are reflected in higher haulage costs and higher management costs. Buyers (and hauliers) will prioritise sites with easier access.

Timber sales in remote rural areas are often of marginal viability and higher costs may result in timber being delayed in coming to market in the hope that demand and timber prices allow for a reasonable return. Poor access may make thinning the crop un-viable. Timber left standing beyond the optimum age for harvest, reduces yields and crop value and increases the risk of the large areas of trees being blown over before they are harvested - greatly reducing their value.

Access costs are reflected in capital values of plantations. Distance to markets as well as relative supply and demand also play a part. This is reflected in regional variations. A mature plantation in the South of Scotland may be worth £10000/ha rather than < £8000/ha in north Scotland.

Rural Trunk Roads

The infrastructure problem is not limited to the 30,000km of rural local roads. The 3500km of trunk roads are the 'strategic' 5% of our road network and their quality and condition impact substantially on the efficiency of processing Scottish timber and marketing it to the rest of the UK.

The dualing of the intercity A9 and improvements to the A96 are very welcome but will take decades in delivery and are already decades overdue. The trunk road network serving rural Scotland remains poor. The A82,83,84,85,86,87, the A828,893, A68, A7, A701, A702, A881 A889, the A9 north of Inverness and the A95 are all inefficient for modern freight particularly when these rural roads are also the main routes for cars, caravans, motorhomes, motorbikes and cyclists. HGV speeds are restricted to 40mph.. These are long stretches of road where passing opportunities, lorry parking and laybys are limited or non-existent, the roads are barely wide enough for two lorries or a lorry and coach to pass in opposite directions. (We don't have statistics for lost lorry wing mirrors (at several 100s of pounds each) but this should be a basic statistic collected by the trunk road authority.) Journey times are long, so driver costs are high and journey conditions poor so it becomes increasingly difficult to retain drivers in rural Scotland. Fuel efficiency on these roads is significantly worse than on dual carriageways. Road and verge condition are often poor.

Accidents, floods, snow and landslides all cause long delays. Diversions, when required, are unrealistic or very long.

All of this adds huge costs and challenges to businesses trying to work, manage land, attract investment and staff and create jobs in rural Scotland.

The Benefits of Modernising Rural Roads for Forestry

Modernisation of the road network used for timber transport would:

- maintain the benefits of the timber industry into the future by
    - ensuring full and unobstructed access to the available resource
    - allowing prompt marketing at age of maximum production
    - encouraging regular thinning operations to maximise yield and quality
    - reducing marketing risks where road damage halts or delays haulage
    - reducing haulage costs by
        - removing the need for more expensive lower impact lorries with reduced loads
        - removing frequency constraints to lorry movements
        - improving journey time
        - improving fuel efficiency
        - reducing lorry maintenance cost
        - reducing driver whole body vibration and fatigue
- reduce the impact of the future timber resource deficit by
    - encouraging restocking of harvested areas with commercial crops
    - encouraging expansion of the timber **resource through new planting**

- reduce public road maintenance costs
- provide benefits to other rural land use businesses such as farming, whisky, fish farming, aggregates, wholesale, recreation, tourism
- better serve rural housing
- reduce costs of freight haulage and public servicing of remote communities
- improve the resilience of the road network.
- improve the visitor experience
- improve road safety
- create rural employment through the upgrading programme

A full upgrade of an un-engineered single track road to suit forecast volumes of timber traffic would typically cost around £150,000/km, as was spent upgrading the B836 in Cowal in 2015.

This involves strengthening edges, constructing or enlarging passing places and resurfacing (incorporating grid reinforcement where appropriate). This level of investment would be warranted on a proportion of the 10,000km network. Less intensive solutions for roads with more occasional timber traffic would be appropriate for much of the remaining network. Installing passing places costs between £5000 for a simple car-sized passing place and £20000 for a longer passing place allowing two lorries to pass). Work to (minor) A & B roads – dual tracking, strengthening etc. can be far more expensive.

2. Transport mode choice and demand

Forestry and timber processing are carbon positive industries sequestering more carbon than they produce and displacing emissions from alternative processes, fuels and materials. The Timber Transport Forum produced a carbon footprint of the supply chain which can be found here[vii].

The timber industry would like to make more use of coastal domestic shipping and rail haulage both to further improve the carbon credentials of the industry and to avoid, where possible, the use of minor rural roads.

Coastal shipping

The Timberlink service, described here[viii], takes advantage of an EU derogation for peninsulas to offer revenue support for shipping of around 100,000 tonnes of timber/yr

from Argyll forests to Ayrshire timber processors across the Firth of Clyde, taking a proportion (15%?) of the timber freight traffic off the rural trunk roads from Argyll. A recent economic and environmental valuation provided justification for the continuation of the service[ix].

The industry could use an extension of support for coastal shipping - beyond Timberlink - to serve the Highlands and the south of Scotland outwith the Firth of Clyde. Currently road haulage remains more cost competitive but shipping from coastal forests, where feasible, would avoid long road hauls on minor roads around sea lochs and peninsulas on often very minor roads. Shipping would improve emissions and reduce the impact on the fabric of minor roads and the disruption to other local road users and tourists.

The barriers to making more use of coastal shipping are manifold. Many of our rural ports are Victorian, have poor landward access and storage capacity. Multiple handling is required with transfers from forest to lorry to boat to lorry to processor; all require facilities and add cost.

The Scottish Government offers EC state aid approved Freight Facilities Grants, waterborne freight grants and mode shift revenue support (MSRS).

The Freight Facilities Grant is massively under used. Although there is opportunity for substantial infrastructure upgrade to promote modal shift, individual private operators are reluctant take on the risk of investment (even with support) and commit to the future freight movements to meet the conditions of the support.

Waterborne Freight Grant, offers grant support towards the difference in operating costs between road and sea – where the movement of freight by water is more expensive. WFG support is limited to 3 years, after which the service is expected to be economically viable without grant support. While this may (or may not) be the case the service may not be economically competitive against road without the support.

The Modal Shift Revenue Support grant (Bulk and inland waterway) offers grant support towards operating costs based on the level of environmental benefits achieved by removing traffic from roads. It uses the Marine and Coastguard Agency's classification of inland waterways and requires that at least 50% of the journey must be within the smooth waterline. For the west coast of Scotland, typified by long sea lochs and coastal channels this can be limiting. Often on leaving a sea loch you leave the 'inland waterway'; and enter waters classified as 'sea'.

Coastal shipping (and rail where available) was the primary mechanism for domestic freight serving these areas until the later decades of the 20th Century, when the shift to road freight coincided with a period of decline in rural freight-intensive industries. Industries like timber are expanding rural freight demand, and, given the limitations of the road network for modern road haulage, a review of coastal shipping support mechanisms could encourage further shift from road freight for localised domestic haulage.

Rail

Mode shift to rail is similarly challenging and no roundwood timber has moved by rail since the last timber trains from Crianlarich/Arrochar in 2009. The Victorian infrastructure and the lack of rail freight access on the rural periphery of the rail network means that any attempt to use rail to take traffic off local roads and peripheral trunk roads faces a considerable challenge. In practice, it may involve creating the totality of modern rail infrastructure (sidings, connections, signalling, rail crossings, staff facilities, storage capacity, loading facilities, lighting, etc.) – all at hugely inflated, 'rail industry' prices - in order to put rail wagons onto a dated peripheral rail network with limited gauge and limited passing loops. Often more infrastructure improvements are also required at the destination. Road haulage, on the other hand, requires - a phone call. Years of effort to put timber on rail in Ayrshire, Sutherland and Rannoch have all failed to overcome these barriers to more sustainable haulage.

Again, the level of support does not outweigh the challenges, cost and risk to individual private prospective users of rail outwith the main intercity lines. A modernisation of elements of the peripheral rail network for 21st Century freight would be required before it will attract significant interest from what is a relatively fragmented private demand.

The Office of Rail Regulation in Scotland does not (as in England) consider the implications for road transport of rail investment (or in this case, lack of investment).

3. Environmental impact of transport

The modernisation of transport infrastructure serving timber haulage would:

- help deliver the diverse environmental benefits of the forestry and timber industry (including carbon sequestration) as set out in the Land Use Strategy, the Scottish Forestry Strategy and the extending national targets for forestry expansion.
- Reduce the carbon cost of reactive road maintenance
- Improve the fuel efficiency of freight transport
- Reduce the disruption caused by lorry traffic on poor roads to neighbouring communities and other road users.

4. Active travel

Rural roads designed for modern freight would improve the road space shared with cyclists and pedestrians. Most rural roads have no cycle path or sidewalk.

5. Safe and resilient transport

The resilience of our rural transport infrastructure is poor, primarily because it has not been sufficiently modernised to suit modern traffic and to support economic investment. Accidents, floods, snow, landslides all cause long delays. Diversions on the rural road network either don't exist of are very long.

Years of under-investment contribute to the poor condition noted by the National Audit Office. A lack of ambition for rural Scotland's infrastructure pervades.

While we are upgrading passenger ferries and promoting tourism with national agencies and funding, the road infrastructure to serve both the tourists and a local, resilient, diverse rural economy is left to local authorities with constrained resources.

The ferries themselves create periodic slugs of traffic with cars caught up in lorry traffic at 40mph with very few overtaking opportunities. Vehicles heading for ferries inevitably want to overtake slower lorries with impacts on safety.

6. Transport Governance

There are several issues surrounding governance.

- Transport Scotland focuses on the 5% of the road network which is trunk road. How do we develop a National Transport Strategy ignoring 95% of our road network? There needs to be more coherence between the National, Regional and Local Transport Strategies.
- The Land Use Strategy takes no account of transport infrastructure despite the fact that the potential of any land use is dependent on its transport infrastructure.
- Forestry and agriculture strategies are set nationally but rely on local roads which are the responsibility of local government. There is no formal mechanism to relate the two. We have a scenario now where proposals for forestry planting schemes to meet national targets are being turned down because the local road infrastructure required to harvest those forests in 2055 is currently inadequate.
- The Strategic Transport Appraisal Guidance simply does not support rural infrastructure modernisation and therefore will not deliver an inclusive Scottish economy. Similarly, for the Strategic Transport Projects Review.
- There is limited strategic infrastructure planning capacity (and resources) in rural local authorities and in regional transport partnerships.
- There is no useful data on rural freight.
- We do not know what the proposed Scottish Rural Infrastructure Plan is for.

7. Potential changes in society and technology

Looking to the future three things stand out:

- The timber volumes coming from Scottish forests will increase from 7.5m tonnes/year to 10m tonnes in the next 20 years. Scottish Government has targets for the further expansion of forest cover in Scotland (currently 10,000 ha/yr rising to 15,000ha/ yr in 2025). The challenge of modernising freight transport infrastructure that meets the demands of our rural land use will remain and increase.
- Most of our country's road network > 30,000km is low-volume, rural, minor roads. What is the strategic plan for modernising these roads for the 21st Century economy and society? Are we simply not going to? If so, is this a deliberate choice and is this a national issue? What will the impact be on Scotland?
- The decarbonisation of our economy and transport systems will tend to leave rural Scotland behind unless deliberate steps are taken. We need modern carbon-efficient freight infrastructure – roads, rail and shipping to serve all of Scotland.

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[i] Rural Focus SRUC 2016

[ii] CJC Consulting (2015). The economic contribution of the forestry sector in Scotland. http://scotland.forestry.gov.uk/images/corporate/pdf/economic-contribution-forestry-2015.pdf

[iii] https://timbertf.maps.arcgis.com/apps/webappviewer/index.html?id=cd6737077f1044728a121c8e311d781f

[iv] https://www.forestry.gov.uk/pdf/Ch2_Timber_FS2016.pdf/$FILE/Ch2_Timber_FS2016.pdf

[v] Audit Scotland: Maintaining Scotland's Roads A follow up report 2016

[vi] http://timbertransportforum.org.uk/work/good-practice

[vii] http://timbertransportforum.org.uk/attachments/article/117/TTF%20Publications%202010%20Understanding%20the%20Carbon%20Footprint%20of%20Timber%20Transport%20in%20the%20UK.pdf

[viii] http://scotland.forestry.gov.uk/supporting/forest-industries/timber-transport/timberlink

[ix] http://scotland.forestry.gov.uk/images/corporate/pdf/timberlink-evaluation-report.pdf