

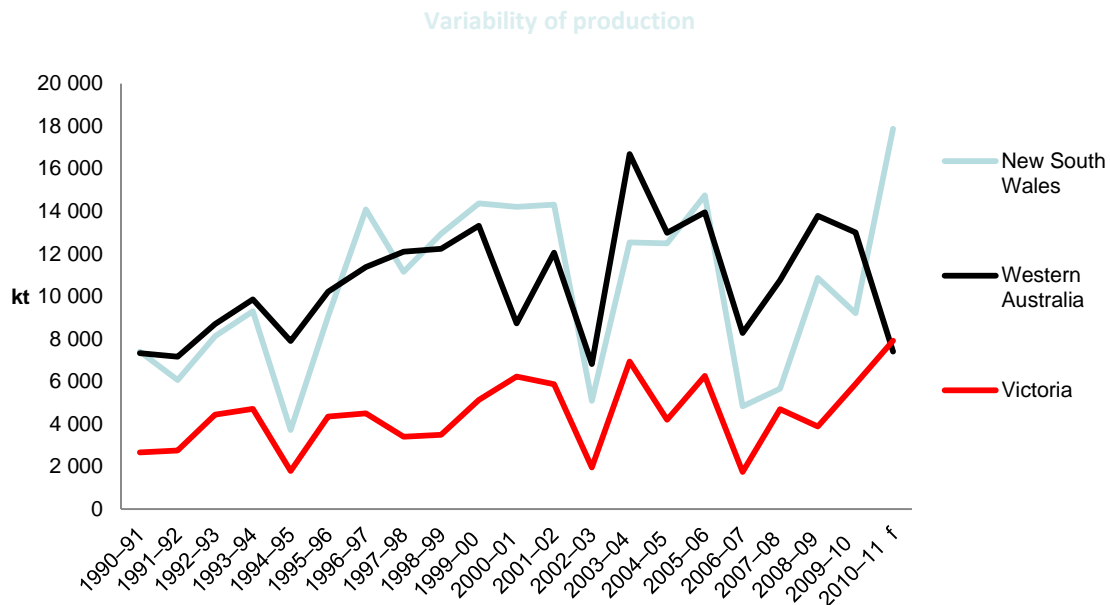
## Australasian Railway Association submission to the Senate Standing Committee on Rural Affairs and Transport: Operational Issues in Export Grain Networks

### Key Points

- There is great variability in grain production, both over time and by region, making the provision of transport infrastructure extremely difficult.
- Grain transport suffers from the concentration of power in the provision of freight and logistics services, increasing the cost of getting grain to market.
- Rail is the only mode that has enough capacity to handle a large grain harvest. Road freight is better suited to handling variability in production.
- The grain freight supply chain suffers from bottlenecks and severe capacity constraint including rail and road freight capacity and port access.
- Because of years of below average crop production, rail has been underutilised and there has been significant underinvestment in rail infrastructure. Combined with the significant diversion of resources towards mining freight, there has been a significant deterioration in rail grain freight capacity.
- The expectation of ‘cost recovery’ for rail infrastructure, fails to recognise the significant social, environmental and economic benefits of rail. It also fails to consider that nearly all regional transport infrastructure, including roads, are provided through significant subsidies by all levels of government.
- Greater investment in rail is the only to ensure efficient and reliable transportation to market of large grain harvests.
- The containerisation of grain rail freight would significantly increase the efficiency of grain freight movements, increase competition for the provision of services and reduce freight costs in the long run.
- Local government and producer ownership of grain freight infrastructure would increase the capacity and reliability of freight services, and reduce the overall freight and logistics costs for producers.

### Grain production

Australia’s grain output varies greatly between seasons and between the east coast and west coast. In 2010/11, Australian grain production exceeded 22 million tonnes, and the coming grain harvest is set to be larger. Most of this output will come from the eastern seaboard states, with droughts in Western Australia severely reducing grain output. In preceding years, the situation was reversed, where Western Australia provided the bulk of grain output. The graph below demonstrates the variability of grain production between seasons and states.



## The Grain Freight Task

### Transportation from farm to port

Typically, rail is the dominant mode for grain transport from the point of grain consolidation, usually at a regional silo, to market. Heavy road vehicles handle the majority of movements from farms to consolidation points.

However, recent developments in grain production and transportation have significantly changed the operation of the grain freight supply chain. State government programs have deliberately diverted investment away from regional grain lines, imposing an effective road freight monopoly for movements from farms to consolidation points. While regional roads have been provided, through significant subsidies by local and state governments, the principle of cost recovery and privatisation has dictated investment in grain lines

In recent years, there has been an increasing incidence of on-farm storage, as farmers have increased their silo capacities to maximise the price they receive for their crops. This has reduced the need for grain consolidation points, and combined with the de-prioritisation of grain lines, has further increased producer's reliance on road freight for the transportation of grain.

Road transport can accommodate some of the variability in grain production. Road freight can more easily transfer operations to meet demand. However, the over-reliance on road transport has the potential to cause significant freight capacity constraints for regional Australia. While road transport can easily shift operations to follow demand, there is not sufficient road capacity to handle a large grain harvest on the east coast. Rail is the only mode of transport that has the capacity to handle a large grain harvest. Rail provides the base line grain freight capacity.

## [Silos](#)

Most grain that is transported to port are consolidated at silos at various points along the supply chain. Most of these silos are controlled by GrainCorp. Silos found on main lines tend to be newer and can load and unload train consists in under two hours. Grain lines have much older silos that require significantly longer times for loading and unloading, often with additional staff. GrainCorp has little or no competition in the provision of storage infrastructure. Given GrainCorp's virtual monopoly of storage infrastructure, it has control over the grain rail freight supply chain.

## [Port Access](#)

The three main export ports on the east coast for grain are Brisbane, Newcastle and Port Kembla. All the grain terminals at these ports are owned by GrainCorp. These terminals are owned by GrainCorp who sets charges with oversight by the Australian Consumer and Competition Commission. Grain from Queensland and Northern NSW predominantly are sent for feedstock domestically, while the remainder is sent through to Brisbane for export. The remainder of grain from NSW is sent to Newcastle and Port Kembla.

Grain can be exported from Port Botany; however it would require the containerisation of the grain. To date this has not occurred. Victorian and South Australian ports also handle substantial amounts of grain.

## [Challenges](#)

### [Variability of grain production and underinvestment in grain line infrastructure](#)

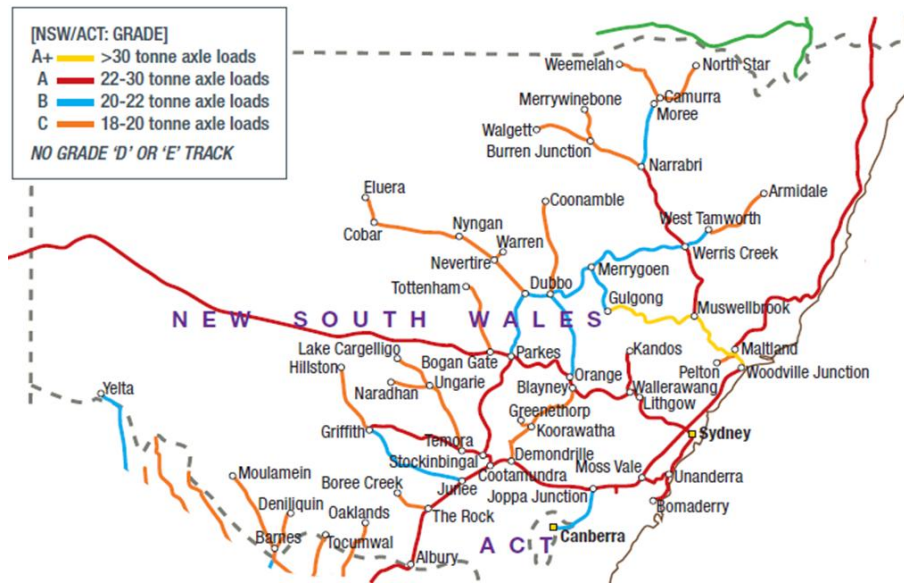
The variability of grain production makes it extremely difficult to provide cost effective rail infrastructure for the provision of reliable freight services for grain commodities. Due to severe under-investment and under-use of grain lines, the capacity of grain lines has been significantly reduced. Many lines have been closed, or have only been maintained to carry minimal freight loads.

Since the privatisation of regional rail infrastructure, the maintenance and upgrading of many lines have been deemed financially unviable. As a result, regional rail infrastructure has severely deteriorated and left operations in a suboptimal state. The financial imperatives for the provision of rail infrastructure stands in stark contradiction to regional road infrastructure, where roads are provided through significant subsidies by local and state governments.

### [Poor infrastructure quality](#)

The state of some regional rail lines can be likened to that of dirt roads. Underfunding has led to the use of wooden sleepers and poor maintenance regimes, which have severely restricted the loads and maximum speeds on the rail lines, as demonstrated on the maps below. Grain lines on the east coast generally have axle load of less than 20 tonnes.

### NSW rail network maximum axle loads



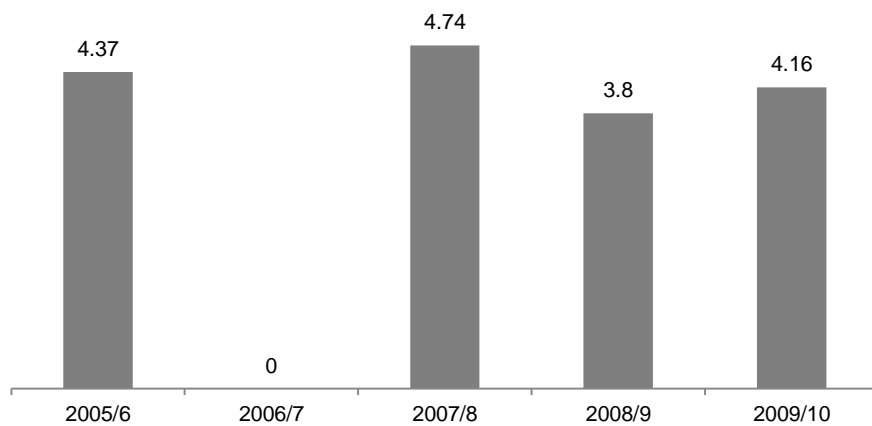
### Victorian rail network maximum axle loads



### Unfavourable conditions for rail operators

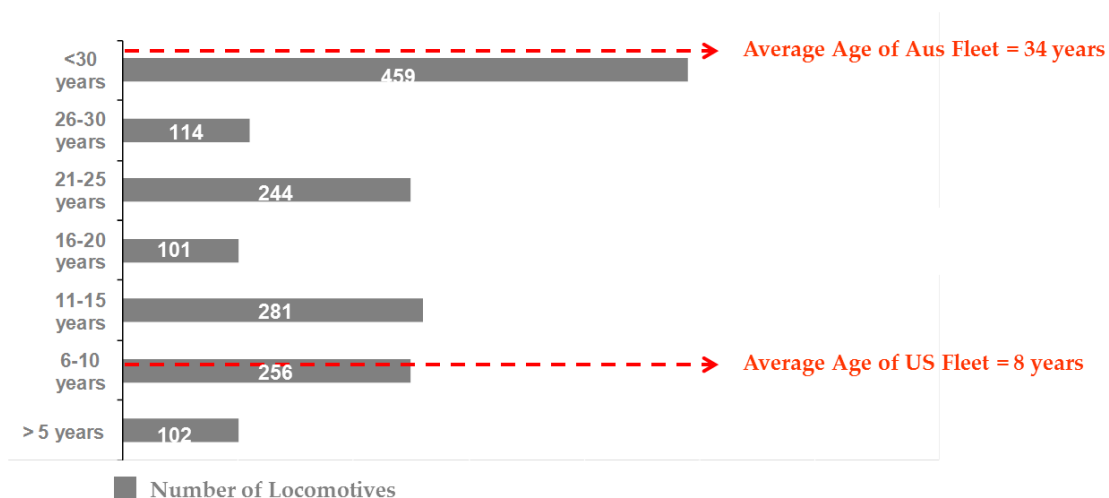
Similarly, given rail's capital intensive operations, and signals from state governments on the de-prioritisation of regional rail infrastructure, rail operators are increasingly reluctant to lock investments on services that are only marginally profitable and have highly unpredictable demand, as demonstrated in the graph below.

### Rail Grain Task (billion ton/km)



Subsequently rail operators have either divested from such operations, or moved their least productive capital equipment to service these lines. This is evidenced by the average age of regional rail locomotives, which is approaching fifty to sixty years. This further erodes the efficiency and reliability of regional rail services. There are currently less than 20 locomotives tasked with the east coast grain freight task, mostly servicing GrainCorp.

### Average age of diesel locomotives (non-mining related freight)



This under-use and under-investment in rail has come about by consistently below average grain production caused by bad weather, and due to deliberate programs by the New South Wales and Western Australian governments to divert investments away from grain lines. The privatisation of rail infrastructure and the increasing importance of financial cost recovery have diverted significant funds away from rail infrastructure. Regional roads on the other hand are provided and maintained on government subsidies.

### [Poorly aligned landside transport and port capacity](#)

There is increasing constraints on landside access to major ports that handle grain. The Brisbane port has limited train paths for grain operators, especially given the increased demand by coal freight operations. The grain facilities at Newcastle Port are running well below capacity, however rail operations to the port are severely restricted due to noise issues, where operations can only run during the day. Unfortunately, most train paths to the port are available at night, making it extremely difficult to utilise the spare capacity at the port.

Port Kembla has increasingly utilised the use of heavy road vehicles, recently increasing the quota for truck movements by 200 000 tonnes above previous limits. This translates to more b-double and b-triple trucks using already congested and unsafe roads, such as Mt Ousley drive.

### [Competition from other bulk freight](#)

The de-prioritisation of grain rail freight by governments will lead to a permanent loss of freight capacity for our farmers. Grain freight competes directly with other bulk freight movements, such as iron ore and coal, for rail services, rail paths and access to ports. With the de-prioritisation of grain freight, investment, rail paths and port access will be diverted to the more lucrative mining bulk freight task.

The mining bulk freight task is a much more lucrative market, benefiting from significant economies of scale and constant and growing demand for services. The sheer size and importance of the mining freight task cannot be underestimated. Of the 853 million tonnes of bulk freight moved by rail in 2009-10, 96-97% was mining related. Grain only accounted for 3-4% of the total task.

### [The carbon price package](#)

The proposed carbon price package will further deteriorate the role of rail in the grain freight task. Of most concern to the rail industry is the impact of the two year exemption for heavy road vehicles, with no similar exemption for competing rail freight operators. This places rail at a significant competitive disadvantage. It is counterintuitive carbon price policy to attach additional charges to the more emissions friendly mode of transport, especially when the modes compete in the same market.

As discussed, grain rail freight operations are becoming increasingly financially marginal businesses. Operators run these services either to provide a full service to national clients or as a community service obligation. Any further deterioration of market conditions could encourage rail operators to leave the grain freight markets completely, and focus on the lucrative bulk freight market.

## **Consequences of current approach to the grain supply chain**

### [Diminishing grain freight capacity](#)

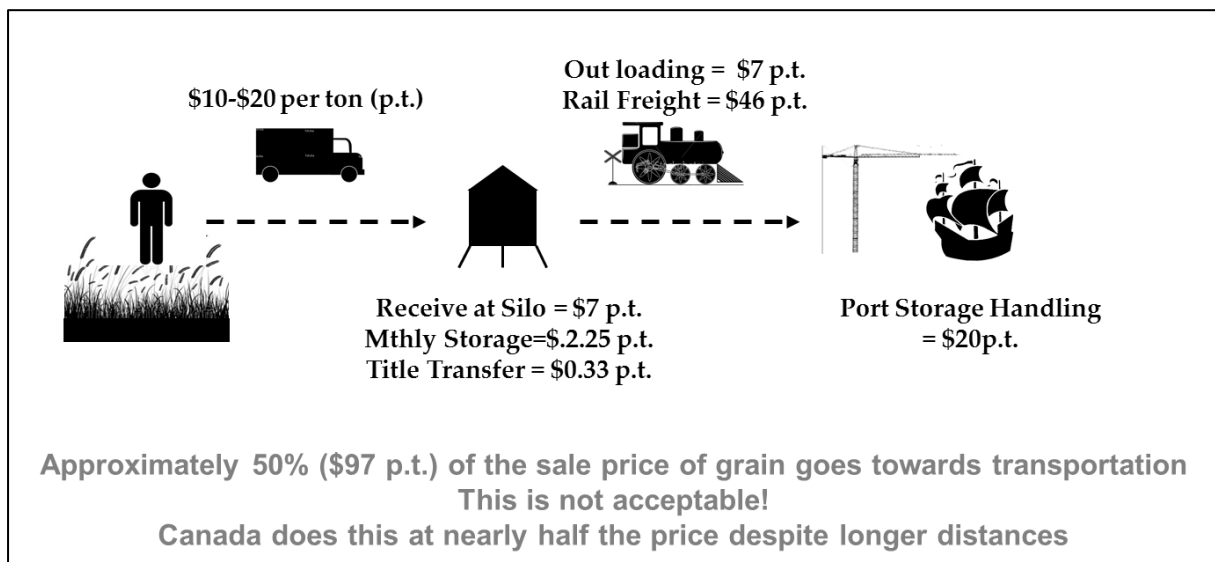
The reliance on road freight for the movement of grain produce seems a logical fit given variability of grain harvests, and the flexibility of road freight. However, road freight does not have sufficient capacity to carry grain freight during large grain harvests. Rail is the only mode that has sufficient capacity to carry the bulk of grain produce to market.

### Increased logistics costs and supply chain bottlenecks

The deliberate de-prioritisation of regional rail freight services, the over-reliance on road freight and the resulting concentration of market control by one service provider will combine with the expected large east coast grain harvest will significantly increase supply chain bottlenecks and increase logistics costs for farmers.

There is not enough road capacity to handle the forecast large grain harvest in eastern Australia. Similarly regional rail infrastructure has been de-prioritised and left to deteriorate, restricting the efficiency and reliability of rail grain freight services. Given the lack of supply and reliability of freight services, and the market power of GrainCorp, farmers will have to pay more for freighting their produce, and the reliability and timeliness of the service will be compromised.

The de-prioritisation of rail freight will also reduce modal competition and increase the overall cost of grain freight. This is a significant issue, given that grain producers already pays more than 50% of the market price of their products for the transportation and handling of the commodity to market.



### Deteriorating regional road infrastructure

The over-reliance on road freight will also place significant pressures on regional road infrastructure. These roads have not been built to withstand the forces of heavy road vehicles and will deteriorate quickly under constant use. This will either lead to significantly higher road maintenance costs for already financially constrained local governments, or road users will have to accept poorer quality regional roads.

### Road safety

Around 1500 lives are lost on Australia's roads every year, a further 30000 people are injured. This tragic toll costs the Australian economy around \$31 billion every year. The increased presence of

heavy vehicles on our regional roads, along with the road damage they cause, will have adverse effects on regional road safety.

## Solutions

### [Recognition of the environmental and social benefits of regional rail services](#)

The lack of government investment and the increasing push for the commercialisation of regional rail infrastructure neglects the social, environmental and community service benefits of rail. The notion that regional transport infrastructure can and must provide a return on investment does not stand to reason. Indeed regional road infrastructure is provided through significant local and state government subsidies. If the cost recovery imperative was applied to all transport infrastructure, regional Australia would have severe transport infrastructure shortfall. Transport infrastructure in regional Australia must be provided based on community service obligations (CSO). The provision of rail would provide the greatest economic, social and environmental benefits for this CSO.

Rail is the only mode that has the baseline capacity to handle a large grain harvest. It also provides greater social and environmental benefits. By way of example, shifting a container of freight off roads and onto rail between Melbourne to Brisbane provides an additional \$150 of economic, social and environmental benefits.

### [Containerisation of grain freight](#)

The most significant operational reform in the grain freight supply chain would be the movement towards the containerisation of grain. The potential to move NSW grain in containers to Port Botany is large. There are many benefits to the containerisation of grain freight including:

- The utilisation of container freight capacity at east coast ports;
- Economies of scale and greater operational efficiency by combining grain freight with the larger intermodal freight market;
- Circumventing some of the antiquated storage infrastructure that services grain rail freight;
- decrease the centrality of storage infrastructure in controlling the grain freight supply change and subsequently increase competition in the provision of logistics and transport services for grain;
- Increase rail operator's capacity to service grain freight, allowing them greater flexibility in the utilisation of their assets; and
- Greater access to Asian markets that have ports that cannot handle bulk commodities.

There are some challenges to the containerisation of grain freight including the provision of produce quality containers and the improvement of the quality track infrastructure to a level that grain lines can effectively interact with mainline services. These challenges should not be a significant barrier and international experience suggests that the containerisation of grain freight is viable. In Canada around 25% of grain is freighted in containers.



## Greater producer and local government ownership and control over grain lines and regional operations

Given the variability of the grain harvest, the provision of grain freight services is a low priority for most freight operators. The mining and intermodal freight tasks provide a more reliable and constant stream of demand. This variability is a contributing factor for the dominant position GrainCorp has gained in the grain freight market, where the barriers to entering the market are extremely high.

Local governments and grain producers are in the best position to provide competition on grain lines. This would also benefit grain producers and farmers by:

- Significantly reducing costs associated with grain freight through the provision of rail services when required and through increased competition for grain freight; and
- Cost savings in terms of significant road maintenance (cheaper to maintain grain lines than upgrade and maintain regional roads to handle b-doubles and b-triples.).

In Canada local governments and producer cooperatives own many of the grain lines and associated infrastructure. This benefits producers through significantly lower logistics costs and greater reliability and flexibility in terms of grain transport.