

Economics Legislation Committee
ANSWERS TO QUESTIONS ON NOTICE
Industry and Science Portfolio
Budget Estimates Hearing 2015-16
3 and 4 June 2015

AGENCY/DEPARTMENT: Commonwealth Scientific and Industrial Research Organisation (CSIRO)

TOPIC: Beef Roads – CSIRO’s Involvement

REFERENCE: Question on Notice (Hansard, 3 June 2015, page 91)

QUESTION No.: BI-9

Senator CANAVAN: I want to ask about the announcement last month on beef roads and CSIRO's involvement with the transit tool developed. I have said previously I compliment you greatly on the development of that tool. It seems to be a fantastic innovation. What are your plans from here to use the tool? Are you still developing it and its methodology? Are you widening it away from just the beef industry? Or is it ready to go off-the-shelf to be used to start looking at where we need to build roads?

Dr Marshall: It is not off-the-shelf; it is very advanced. It uses a lot of inputs that a traditional logistics and planning model probably would not use, including weather, environmental effects and so on. One of the interesting consequences of that tool, which, as you quite rightly pointed out, we use to figure out transport logistics for the cattle industry, is it has a much wider range of applications, surprisingly, we believe, including inside factories, for the transport and logistics of parts through the process of manufacturing a system. That was quite a surprise for us. It was an observation made by one of our commercial partners who was looking for just such a solution, so it was an unexpected benefit from that.

Senator CANAVAN: Back to my question, in terms of it being used to develop the government's spending of its \$100 million for beef roads—and this tool was specifically mentioned in the announcement of that—how is that going to work? How is it going to plug into the decision-making process?

Dr Marshall: I cannot speak to the government's utilisation of that. But the notion from our side was to help provide some scientific input as to optimum routes. Because you have got this fundamental problem of getting the goods to market—keeping them healthy and refrigerated and so on—the shorter the distance can be, the better the quality of the product when it is delivered.

Mr Roy: On the specifics of your question, I think we will have to take part of that on notice and engage with the scientists. We would be expecting that we would assess—obviously, it is fit for purpose—but whether it needs any modification or optimisation to apply to that particular challenge where we have to take it forward. I think that we would need to ask the scientists who run it for that. It sounds like you are well and truly aware that it has had a lot of success in the past. There is no reason it will not be very helpful in this particular case too.

ANSWER

The development of the first phase of TRANsport Network Strategic Investment Tool (TRANSIT) was commissioned by a consortium including state jurisdictions and the Department of Infrastructure and Regional Development, for the express purpose of helping to identify and prioritise improvements in the northern road network. The tool works by analysing every possible combination of transport routes and methods (road and rail) and determining those that optimise vehicle movements in the agriculture supply chain. It incorporates factors such as road/rail condition, temporary closures and diversions (eg due to flooding) and availability of supporting facilities such as truck stops and holding yards.

The TRANSIT tool is constantly being refined, in part through use by industry and their feedback, and in part through devoted R&D activity.

CSIRO's plans for future development and use of the TRANSIT tool are several-fold.

As part of the recently announced beef roads initiative, CSIRO will be assisting the government to identify and prioritise improvements in the northern road network. We have been using the tool for about a year to help a range of transport companies, beef industry players and regional authorities to optimise beef transport and infrastructure projects (e.g. abattoir plans) at a smaller scale throughout northern Australia and its application has proven to be highly effective.

Opportunities to expand the application of the TRANSIT tool beyond the beef industry are currently being explored.

There are a number of ways the tool can inform decision making by answering questions such as:

- The costs and benefits of a particular project;
- Where the most reliable return could be for a given investment in road infrastructure;
- Where the greatest infrastructure bottlenecks are and how they could be overcome.

Application of the TRANSIT tool to beef roads is a recently announced project and specific details of its implementation and deliverables are yet to be worked through. It is most likely that TRANSIT will be used iteratively by Government, jurisdictions and industry experts to identify, analyse and prioritise a range of potential development options.