

**Submission  
No 5**

## **TECHNOLOGY AND THE AGRICULTURE AND MINING SECTORS**

**Organisation:** Narrabri Shire Council

**Date Received:** 14 February 2022

Our Reference: 1954515 ET:BB  
Your Reference: XXX  
Contact Name: Bill Birch  
Telephone: (02) 6799 6866

Emma Wood  
Committee Manager  
Parliament House, Macquarie St  
Sydney NSW 2000

By online submission

Monday 14 February 2022

**Re: Legislative Assembly Committee on Investment, Industry and Regional Development inquiry into technology and the agriculture and mining sectors**

Dear Ms Wood,

Narrabri Shire Council writes to you regarding the Legislative Assembly, Committee on Investment, Industry and Regional Development Terms of Reference inquiry into technology and the agriculture and mining sectors.

Agriculture and mining is the backbone of Narrabri Shire's economic progression and stability, and Council welcomes this enquiry to further promote growth and opportunities in these sectors.

- a) Opportunities for regional NSW presented by agricultural and mining technologies and innovations:

Narrabri Shire has substantial production capabilities in broadacre agriculture, primarily around cereals, pulses and cotton. Additionally, the Narrabri Shire economy has diversified into resources with the establishment of coal mining companies and business support organisations. Narrabri Shire is reliant on agricultural success, and therefore diversification and innovations are crucial to future economic stability within the industry. Research facilities such as the University of Sydney's Plant Breeding Institute have offered scientific progression in the creation of drought resistant cropping, and other climate resistant varieties. Further Government support for the institute and other agricultural research centres in the area, would benefit agricultural stability locally, nationally and internationally.

With the increasing demand for agricultural and mining commodity outputs, comes an opportunity for Narrabri Shire businesses to up-take new technologies, improve productivity and economic output. New opportunities also extend to social and economic benefits beyond the sectors, as new job creation and migration to the Shire, improves education, and lifestyle benefits.

- b) Barriers to the take up and use of agricultural and mining technologies and innovations:

There is a plethora of new technologies in the agriculture sector, however many farmers are hesitant due to unreliable connectivity and black spots within the region. Many rural



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properties and businesses cannot make simple phone calls without disruption, and therefore are unlikely to invest substantial capital into technologies that are reliant upon constant connection. For example, cotton is one of Shire's largest commodity exports; requiring inputs including water. Automated irrigation sensors are available on the market, however, can be unreliable on properties around Narrabri Shire due to poor connectivity.

Agricultural businesses extend beyond purely broadacre cropping or livestock. Many rural women have established businesses from their remote locations. The opportunities for rural businesses have grown due to the dominance of online shopping, however these businesses have reduced capabilities due to poor connection. It is crucial for these small businesses to have connectivity, as it allows for diversification of income on rural properties.

Education and career expertise is also a barrier to the take-up and maintenance of new technologies. Currently the agricultural workforce is largely labour based, with a large proportion of the workforce being trade based or school leavers with no further education. Expertise is required for the creation, implementation, and maintenance of new technologies and if regional towns lack education or courses in these areas, local people will not have the knowledge to use these technologies.

- c) Measures to support the use of agricultural and mining technologies and innovations:

Narrabri Shire would benefit substantially from increased government expenditure in connectivity and black spot programs. Improved connectivity will allow for the up-take of new technologies, as well as provide the access for education and training required.

Narrabri Shire would also welcome further support in the education field, offering courses in Ag-Tech and Science innovation through TAFE or the Country Universities Centre based in Narrabri. This would promote the use of new technologies and create job opportunities.

Further funding for research programs such as the University of Sydney Plant Breeding Institute, would enhance the creation of new innovations and benefit the Shire greatly. The Plant Breeding Institute hosts multiple agricultural facilities which could be the core destination for further development and technology field days.

- d) The impact of technologies and innovations on the past, current and future agriculture and mining workforce:

Technology has caused drastic changes in the dynamic of the agricultural and mining workforces. An increased uptake in technologies and automation will transform the workforce from labour intensive to a machine dominated industry.

With an increasing population, comes higher demand for agricultural and mining resources. The Food and Agriculture Organisation of the United Nations (FAO) estimated

that global agricultural output must increase by 70% by 2050 to offer food security globally. With this increased demand comes the need for increased yields, output, quality and productivity in the agricultural industry. The answer to meeting these demands is technological implementation, and increased productivity. The opportunities for agriculture within regional NSW, namely Narrabri Shire are outstanding and will promote economic and job progression.

New technologies will require new expertise, and therefore there is a growing market for job opportunities within these fields. Scientific, technological and data focused education will be highly sought after, during the up-take of new Ag-tech and mining innovations.

Overall, the technological revolution will catalyse the creation of new jobs and change the dynamic of the current agricultural and mining workforces, demanding scientific and data based roles.

The mining and agriculture sectors currently employ a third of Narrabri Shire's working population and with new technologies, comes new job opportunities. As Narrabri is a hub for mining and agriculture the forecasted job opportunities, may promote domestic migration to the Shire boosting both economic and social progression.

If you require any further information in relation to this matter, please do not hesitate to contact Council on the number listed above.

Yours Sincerely,

Bill Birch

**Economic Development Manager**