Scenarios for the Northern Grains Region

This is a preliminary report of the scenarios developed in the northern grains region which will compliment the full project report. It is designed for the benefit of the workshop participants and as a resource for prompting discussions amongst growers, industry leaders and the wider community as to possible implications and impacts of various future events and strategic decisions.

Introduction

In an increasingly complex and dynamic world, Australian grain growers face numerous challenges and opportunities. The choices that are made today will help to shape the future of the industry and of the people within it. This project was developed to assist growers in making sense of the numerous driving forces (international, national and regional) that will shape the future of the industry by grouping them into clusters of key drivers and exploring a range of plausible meaningful scenarios for how the industry future might unfold in a 20-year time horizon.

A series of scenario planning workshops were held across GRDC regions to develop a set of plausible scenarios, specific to each region. This was a highly participatory process, which drew upon national and international trends and forecasts as well as local knowledge and industry aspirations.

The workshop

In August 2008, representatives from within and outside the grains industry gathered to develop plausible scenarios for northern grain farming enterprises in 2030.

Participants reviewed and discussed global, national and regional forces that potentially will shape the future direction of the grain industry in the northern region. Aspects such as global power and wealth, growth in Asia, peak oil, energy, climate change, water, food security, new technology, enterprise diversity and the capacity of rural communities were considered. With this background information in mind, the participants, working in groups, identified drivers that they considered likely to shape the future of farm enterprises in the northern grain farming region. These were then discussed by all of the participants and a list of twenty unique, key drivers was developed.

Australian Government
Grains Research and Development Corporation

GRDC Grains Research & Development Corporation

Key Drivers Shaping the Future of the Industry

- Family/corporate farming
- Energy costs (inputs & outputs)
- Capacity to adapt, innovate, change
- Profitability
- Infrastructure
- Farm business structure (position in value chain, horizontal & vertical integration)
- Water/climate (availability, quality, management)
- Resource decline (addressing)
- Input (availability, cost, shortages)
- Domestic government policy (conducive or preventative to grains productive)
- International policy
- Industry leadership
- Existing markets (demand, competitiveness)
- Regulation & compliance
- New technologies (development & adoption)
- Supply chain opportunities (end markets, differentiated product, relationships}
- Support sectors (R&D, services, commercialisation, availability & efficiency)
- Rural-urban (image, public perception, industry promotion)
- New demand (industrial use)
- Labour availability & skills

Scenario shaping drivers

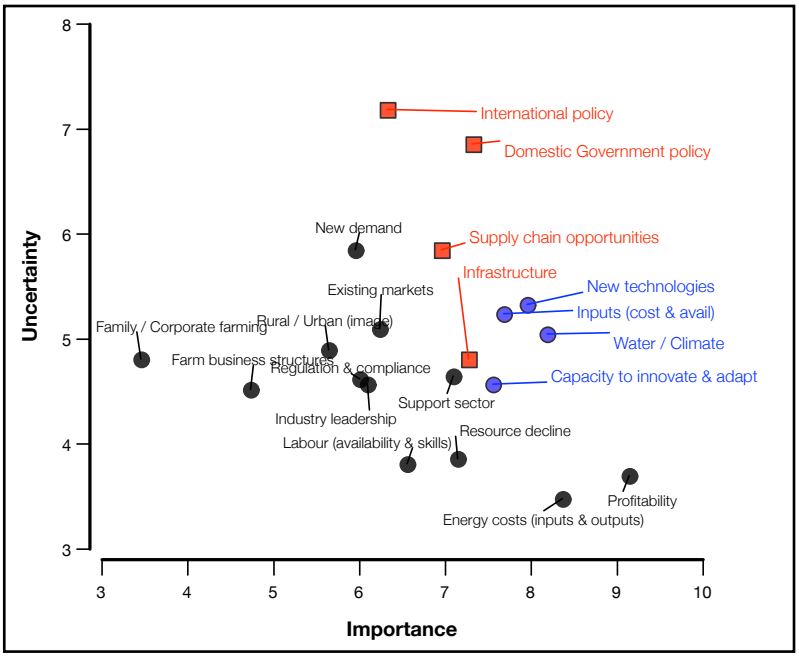
Drivers were rated out of 10 for their importance in shaping the future of the industry and the degree of uncertainty associated with the driver in terms of either its future level, impact, or both.
A map of the importance and uncertainty of the drivers highlighted clusters of those considered to be important, but also highly uncertain:

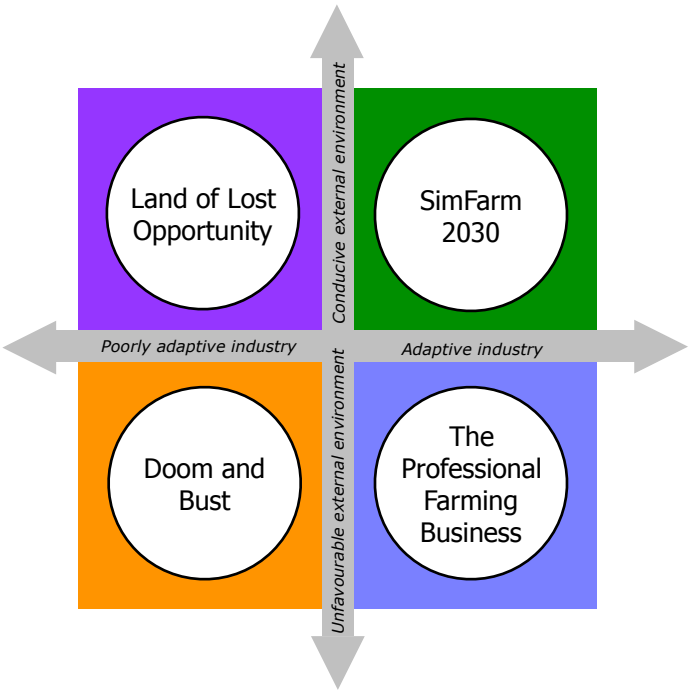
External operating environment

International policy; Domestic policy; Supply chain opportunities ; Infrastructure

Industry adaptation to changing physical 'environment'

New technologies; Inputs (cost and availability); Water / climate (availability and quality); Capacity to innovate and adapt





Plausible Futures

The scenario shaping drivers were used to define four scenario 'spaces', with quadrants either towards or away from each driver cluster. These quadrants were used to formulate four plausible scenarios. A detailed narrative for each scenario explored economic, environmental and social implications for the farm, industry and region out to 2030.

2030: Four Regional Scenarios

The Land of Lost Opportunity

Twenty years with favourable policy settings has resulted in a complacent industry which is slow to change and possesses a decreasing skills base. This has resulted in winners and losers; haves and have-nots. Resources have been run down due to poor adaptation, so yield and quality has declined, markets are disappearing and investment in research and development has decreased. These negatives, combined with a decrease in wealth, services, people and infrastructure in regional communities has lead to tension between the successful and unsuccessful.

Timeline to Land of Lost Opportunity

2010

Greater awareness of the importance of food security and the stewardship of land-holders lead to a policy environment that was favourable to agriculture with concessions for greenhouse gases, subsidised fuel and investment in regional infrastructure.

2020

The industry complacency which resulted in poor adaptation started to become evident in decreased productivity and a decline in research and development. There was a diversification of rural economies and a reduction in the relative contribution from agriculture prompting Move from research to extension. Further policy to improve adoption.

SimFarm 2030

A technological and adaptive farming sector is supported and encouraged by positive policy settings and modern infrastructure. Crop production is based on accurate climate forecasts and world class R&D and involves the production of quality grain to market specification from resistant varieties (GM where appropriate), using automated record keeping (information rich agriculture), supervised robotics and on-farm storage and marketing. Transport routes accommodate efficiency and are shorter due to greater consumption of products in the region.

Timeline to SimFarm 2030

2010

Technological advances yielded mixed results with improvements in climatology giving more accurate forecasts and iimproved tillage technology trialled, but disappointment at the offerings from National Variety Testing. A detailed, plan was developed for improved and upgraded transport infrastructure.

2020

The development and uptake of new technology was advanced by trials, feedback and new markets. Seasonal forecasts were correct to 80%, PA became operational, second-generation GM crops planted, feedlots & ethanol plants were integrated into farm businesses and new roads and railways were built.

Doom and Bust

Grain enterprises are based on large farms, large machinery and low margins. Crops are grown opportunistically, with stored moisture as the trigger, strategic use of inputs (fertiliser, labour) and a focus on farm self sufficiency. Boom/bust cycles are common as there is no adaptation to disease, biosecurity, pests and herbicide resistance. There is competition for land use in favourable areas (with offsets for emissions trading and electricity) and greater sourcing of off-farm income. The lack of industry co-ordination and no political voice has seen diversion of water from farms to cities, domestic demand and to environmental flows and vulnerability to international prices.

Timeline to Doom and Bust

2010

There were trends to increased farm size, increased corporate investment, more grain storage on-farm, declining labour (competition with mines), decreased R&D funds and capacity and further market deregulation. Fear of change resulted in low adoption of new technology

2020

Average farm size had increased by 50% in 10 years. The focus was on grain as a bulk commodity (rather than grain quality) due to increased costs associated with inputs and emission trading compliance.

The Professional Farming Business Pty Ltd.

There are fewer, bigger farms with professional managers, more corporate-style ownership (although not necessarily corporate owned) and a licence to farm required. Farm work is viewed as being part of a career. There is an emphasis on QA/EMS resulting in improved perception of environmental stewardship, but this does not overcome trade barriers. Larger regional centres are vibrant, but smaller towns are dead.

Timeline to the Professional Farming Business

2010

There was uncertainty and volatility in the industry driven by high input costs, burdensome compliance costs, cuts to water allocations and market volatility. Town services continued to decline and this decline was accelerating. More grain traders lead to inefficient supply chains and export bottlenecks.

2020

Consolidation was occurring throughout the industry with farms consolidated under corporate ownership or large family businesses, consolidation of grain traders and consolidation to regional centres. Costs continued to rise, but larger structures afforded better resource utilisation and there was a change of crop mix to high value crops and products. The industry was presented as carbon friendly.

Observations and uses of scenarios

Throughout history societal and industry change has been constructed principally around 'cultural' and 'economic' aspects. In considering the future, most observers tend to focus on one or the other of these. Part of the power of scenario planning is that it takes account of both of these major 'axes' concurrently and uses them to position key drivers. These scenarios for the grains industry in the northern region are no exception. The four scenarios which were developed by the participants were based on the 'human/cultural' axis of policy, supply chain opportunities and infrastructure and the 'technological/economic' axis of industry adaptation.

The importance of investment in research and development in determining future outcomes is evident from these scenarios. Inability or unwillingness to invest in research and development or to adapt to changing conditions could result in lost opportunities, industry stagnation or even the demise of individual farms or of the industry as a sector. The potential for good times to lead to industry complacency which may ultimately be destructive is another important message from these scenarios.

While it must be stressed that they only represent *plausible* futures, the scenarios may be used in a multitude of ways. Current businesses may be placed in a scenario quadrant based on their circumstances or direction; challenges to industry prosperity can be identified; or the overall direction of the industry may be placed on the scenario axes and gaps or new areas of investment required by GRDC and partners may be highlighted. An important use of scenarios is as a 'testing' ground for assumptions of the outcomes of strategic plans of individual businesses. Are plans robust under each of the scenarios, or would the business come unstuck if a particular scenario played out? A crucial part of this use of the scenarios is in tracking key drivers to try to identify how the future may be unfolding in reality.

This summary is a first step in providing a resource to help to extend these scenarios beyond the participants and their immediate sphere of influence. It is hoped that this resource will be used to prompt discussions amongst growers, industry leaders and the wider community as to possible implications and impacts of various future events and strategic decisions.

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