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# WHAT MIGHT THE WORLD AND THE WOOL INDUSTRY LOOK LIKE IN 2030 – AND WHAT MIGHT BE THE IMPLICATIONS

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## **ABSTRACT**

In 2004 and 2005, Australian Wool Innovation (AWI) and Land & Water Australia (LWA) commissioned a scenario planning project as a component of their broader Land Water & Wool program. Using a 20 person forum, the project was not about trying to predict the future (impossible) but sought to focus on learning about long-term future issues. Such an approach can assist decision-making in relation to both broad Research & Development (R&D) direction and specific R&D projects. This paper provides a brief summary of the process used and the key findings which arose.

## **BACKGROUND**

We live in a very uncertain world. To make sense of where we are, where we are going and how we're going to get there, tools like scenario planning can assist organisations or industries to think differently about the future and to help deal with the uncertainty we face.

AWI and LWA used such a process in 2004/2005. The project formed a 20 person national forum drawn from wool and other industries. Facilitated by a professional "futurist" this forum examined a range of key issues that may impact on the world and thus the wool industry over a 25-year time-scale (to the year 2030). A set of wool industry stories (scenarios) were developed that describe the "worlds" that certain key factors might create. The potential implications for the wool industry of those worlds were then examined.

Background issues considered by the project team in developing these worlds included:

- Social issues – global and national demographic changes; labour availability; community attitudes;
- Climate variability and change;
- Land use and environmental and animal welfare pressures;
- Terms of trade for the wool industry;
- Competition from other agricultural enterprises;
- Competitive fibres – new products; production levels and prices;
- The opportunities from new technologies – biotechnology; nanotechnology; organic machines etc;
- Potential new uses for wool; and
- The changing face of consumer preferences.

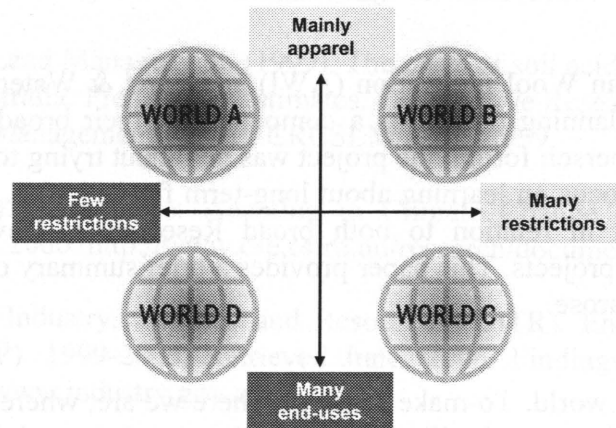
Reports were commissioned on each subject from experts in the field or by researching available literature, information and the web.

The *Land, Water & Wool Future Woolsapes* project then developed four possible scenarios (different worlds) and examined the possible implications of these for the wool industry. The scenarios are as important for the rangelands of Australia as for any other region; they allow us to consider the future profitability and sustainability of the wool industry as a whole, which can then be overlaid with the unique circumstances that might affect pastoral wool producers into the future.

## THE SCENARIOS

The four scenarios were built around two key “issues”, which are just two of many that the industry may face in the future. The “issues” chosen were:

1. What restrictions will there be on society in general and farmers in particular – will they need a licence to operate? (**Supply** factors)
2. Will there be demand for wool and where will it come from – will it be just for apparel use or a diversified product range? (**Demand** factors)



Each “world” or scenario was developed using a different combination (see primary assumptions in the scenarios below) of these two issues.

The following provides a brief description of the 4 scenarios (“worlds”).

### **WORLD A “THE SQUEEZE CONTINUES”**

#### *Primary Assumptions*

- There are few restrictions on society and industry
- Wool is primarily used for apparel

In this world, consumers are “king” and personal health and environmental issues are of critical importance to them. Governments play a limited role in people’s lives, after they were held responsible for some near environmental disasters years before. Farmers have complete freedom to operate and it is a totally deregulated industry. It is also a very fragmented industry and specialist wool production has been “squeezed out” of traditional production areas. Other wool production comes as a poor quality by-product from cereal and lamb producers, as well as from small “cottage” farmers.

In response to market pressures, a group of specialist woolgrowers have rallied together and have introduced their own environmental accreditation scheme. They have also formed a co-operative (Wool Australia Corporation (WAC)) to deal directly with vertically integrated retailers. But the specialist woolgrowers involved in WAC are doing okay, largely because they invested heavily in technology (gene mapping; animal transponders; virtual fencing, genetic defleecing, non-aqueous scouring, short spindle processing, smart fabrics etc); had a transparent and eco-friendly production system; sought external investment; and adopted modern selling and targeted marketing strategies. Apparel wool is marketed on its human health and “wellness” properties (based on research findings).

## **WORLD B “FASHION POLICE”**

### *Primary Assumptions*

- There are many restrictions on society and industry
- Wool is primarily used for apparel

This is a highly regulated world. The production and marketing of wool is influenced by strict government regulations on the use of land, water and vegetation. Agriculture has been forced to operate under environmental accreditation schemes by market demands, world trade regulations and domestic government policy. Farmers are receiving environmental services payments to help to compensate for the cost of complying with these systems.

The sheep industry in Australia has become polarized into specialist wool producers and specialist lamb producers. Fine Merino wool is a specialist, "green", niche product for apparel that is being used in high quality clothes marketed to wealthy middle-aged conservatives. The coarse wool from prime lamb producers is of poor quality and is sold into interior textile applications. Specialist wool production operations have been forced into the hilly and un-arable country of the medium and high rainfall zones in the southern states that is not suitable for intensive cropping, forestry, vineyards or semi-rural lifestyle farms.

Labour and management challenges have influenced the pastoral zone to become a breeding zone for non – wool breeds. Northern Australia is experiencing strong growth through new irrigation developments which are supplying an insatiable Asian market for food. Northern Africa has become the world’s new industrialized region. While the wool industry has shied away from Genetically Modified Organisms, it is now (ie: 2030) about to review that policy.

## **WORLD C “ACCREDITED CRIMP IS KING”**

### *Primary Assumptions*

- There are many restrictions on society and industry
- Wool has many end uses

This is a highly regulated, high-tech world. The family farm has all but disappeared and “corporate” farming with lease-back arrangements has taken its place. The latest technologies are used at every step by highly skilled and well-educated farmers. Because of government regulations and in order to comply with the “corporate” ethos of the time, a licence to operate a wool production enterprise is needed. This includes a regular environmental audit to show that the natural resources on the property are being enhanced. Even marketing is highly regulated with only fibre less than 18 micron being allowed to use the term “wool”.

Research has also allowed wool to diversify in its end-uses. Marketed under the SuperExcel brand, fine wool is still used in high quality apparel products but also in a range of medical applications – mainly paediatrics, geriatric care, burns units and infectious diseases hospitals. All wool scouring is done on the farm so as to meet strict environmental regulations and for bio-security reasons. Twenty percent (20%) of production comes from shedded sheep. Genetically Modified Organisms are now totally accepted.

## **WORLD D “WOOL AIN’T WOOL”**

### *Primary Assumptions*

- There are few restrictions on society and industry
- Wool has many end uses

In this world, Governments take a back seat. Constraints on business are minimised as the free market economy rules and the consumer is queen and king. A united, aggressive and innovative industry, formerly, ‘the Australian wool industry’, contributes 10% of national GDP and is a leading export earner. Led by its ‘whole-of-value-chain’ peak body and now corporatised AUSWOOL, it controls 5% of global animal fibre – including wool – production and markets its broad product range through its ECOCHAIN stores. ECOCHAIN reflects industry ethos.

Initially stimulated by consumer demand for environmentally certified products in the early 21st century, adoption of environmental management systems signalled an industry-wide commitment to transparency and traceability throughout the supply chain. Thus, when the World Trade Organisation’s (WTO) environmental legislation impacted on processing in 2015, AUSWOOL was positioned to begin a roll-out of its industrial ecology parks, located close to centres of innovative design and manufacturing in Europe, Japan and North America. The product range in 2030 includes cosmetics; health care applications; apparel, and high value industrial goods, including electronics applications. At the end of 2030 AUSWOOL listed on the New York Stock Exchange and, in one day of trading, out-capitalised the global communications giant, News Corporation.

### **SOME POSSIBLE IMPLICATIONS**

Some of the issues which emerged from the development of the scenarios included:

1. A united vision for the wool industry is needed.
2. Pressure from competing fibres and other agricultural industries suggests that incremental gain across the industry may not be sufficient to avoid significant restructuring.
3. Sustainable resource use and animal welfare are likely to become increasingly important – whether driven by governments, consumers or both. Climate change is likely to impact further.
4. The ability to track fibre through the pipeline is a likely consequence.
5. A likely move to further agricultural specialisation and potentially a significant relocation of wool production, especially into the less arable areas. Indeed, wool and sheep meat production to diverge.
6. New age farmers will evolve as the scale of the enterprise, ownership structure and skills required further alter.
7. Cost and labour availability will increase the need for labour saving technology.
8. Productivity and quality improvements in both production and processing will be critical. New technologies (biotechnology, nanotechnology) need to be harnessed and “paradigm change” solutions found.
9. Consumer markets will change. New wool products that meet these changing consumer needs and expectations will be paramount (value, individuality, immediateness, well being and confidence, comfort, security and welfare and environmental assurance).