Hawkesbury Harvest – a multifunctional agriculture model for regional rural development

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Abstract. Across Australia there is growing policy emphasis on developing the resilience capacity of farmers, farming families and rural communities to deal with increasing climate and economic variability and uncertainty. Innovative ideas and concepts arise out of concern for the future of things people think is important to their quality of life. One such concept that has been developing as part of Sydney's landuse and food culture is Hawkesbury Harvest. Hawkesbury Harvest, which began in 2000 as a raw agritourism product, offering 13 destinations in the Hawkesbury Shire, has been evolving as a multifunctional agriculture development mechanism that now extends right around the Sydney Basin and down into the Illawarra region. This paper proposes that the Hawkesbury Harvest model has something to offer to rural NSW for developing resilience capacity. This is being recognised and is currently being acted upon by Regional Development Australia Southern Inland.

Keywords: uncertainty, innovation, multifunctional, resilience, capacity

Introduction

It is my intention in this paper to provoke serious thought about the concept of multifunctional agriculture as a mechanism for increasing the viability and sustainability of small family farms in the context of increasing climate and economic variability and associated uncertainty and the changing drought assistance policy emphasis of government. In so doing I propose that the peri-urban Hawkesbury Harvest multifunctional model has application to rural NSW as a mechanism to increase family farm income and associated rural business income.

Multifunctionality or multifunctional agriculture are terms used to indicate generally that agriculture can produce various non-commodity outputs in addition to food. The working definition of multifunctionality used by the OECD (OECD 2000) associates multifunctionality with particular characteristics of the agricultural production process and its outputs:

- the existence of multiple commodity and non-commodity outputs that are jointly produced by agriculture; and
- some of the non-commodity outputs may exhibit the characteristics of externalities or public good, such that markets for these goods function poorly or are nonexistent.

The concept is based on the idea that agriculture has many functions in addition to producing food and fibre including environmental protection, landscape preservation, rural employment, community development, human health rehabilitation, value-adding, regional branding, agritourism and education (OECD 2000)

The NSW rural situation

Climate and economic environments

NSW farmers, farming families and associated rural communities have just emerged from an eight year drought, beginning in 2002 and ending in 2010. This was the third such drought in NSW in the past 115 years with the other two being from 1895 to 1902 and from 1934 to 1942 (Wilkinson 2005). As those rural sectors emerge from this drought, the Australian agriculture industry is faced with a volatile AU$ that some have predicted could achieve an exchange rate of US$1.50 – not an encouraging prospect for an industry which is substantially export oriented with exports in recent years generally comprising some 60 per cent of agricultural production (Roberts et al. 2008).

The uncertainty for farmers associated with a fluctuating AU$ is not helped by the variation of opinion. On one hand the National Farmers Federation is saying the nation's farm income is slashed by $220 million for every 1% the AU$ rises (McElhone 2011). On the other the National Australia Bank is saying agricultural exports will jump to $32.2 billion in 2011-12 up 3.4 per cent on the previous financial year despite the high AU$ (Kondinin Group 2011). The same applies to the variation of opinion by economists and other industry experts on which way interest rates will go.

Government policy

A further challenge for the farming community is that State and Federal drought assistance policy has been changing with increasing emphasis on encouraging primary producers to

become self reliant in managing climate variability. This began in 1993 with the Keating government implementing the Farming for the Future Program which had a technological and skills based focus.

In 2004, as the Howard Government moved towards a more inclusive approach – a human welfare and social resource development component was added to drought support policy to balance the technological and skills focus (Wilkinson 2005). From 2005, as the drought deepened, there was an increase in the federal and state government's funding for rural mental health programs as a further expression of this policy.

In 2010 the Rudd Government in partnership with the Western Australian Government implemented a one year Drought Pilot designed to move farmers from a crisis management approach to risk management. The aim of this pilot was to better support farmers, their families and rural communities in preparing for future challenges, rather than waiting until they are in crisis to offer assistance (NSW RAA 2010). The pilot focus was on on-farm technological development through whole farm strategic planning. Other relevant components included the development of community social capital and networks and farm social support to meet the mental health, counselling and social needs of farming families.

The intent of this trend over time and the Western Australian pilot is clear – farmers, farming families and rural communities are going to have to become more self reliant and resilient to meet the climate and economic challenges. This requires the development of capacity not just at a technological level but also at a human resource level – a level where people can cope with the situation confronting them mentally, emotionally and even spiritually as well as technologically.

The NSW Government recognised this interdependent relationship between technological development and human resource development when it transformed its Drought Support Worker Program to the Rural Support Worker Program within the Department of Industry & Investment's Division of Primary Industries at the end of the drought mid 2010.

Farm size and financial performance

Research (Hooper et al 2002) has demonstrated that as at the beginning of the 2002-2010 drought:

- Ownership of Australian farms was dominated by family businesses.
- Since 1961 the number of 'sub-commercial' farms (ABS estimated value of agricultural operations between $5,000 and $22,499) increased to 33,674 establishments occupying 16.6 million hectares of land contributing less than 5% to the gross value of agricultural production. Most of these farms are located in the high rainfall zone near urban locations. Typically families operating or residing on these establishments derive the majority of their income from off-farm or non-farming activities.
- Since 1961 the number of 'commercial' farms (ABS estimated value of agricultural operations of $22,500 or more) diminished from 200,000 to just over 111,000 in 2000 with the average area of a commercial farm increasing from 2,800 hectares to 4,100 hectares. These farms are loosely classed as broadacre farms where the majority of income is from on-farm activities
- The bottom third of the broadacre farms (small farms) yielded an average rate of return between 1990 and 2000 for:

Wheat and other crops:	+0.6% with the top 25% of the group yielding 8.5%
Mixed livestock/crops:	-2.6% with the top 25% of the group yielding 3.1%
Sheep:	-4.1% with the top 25% of the group yielding 2.2%
Beef:	-3.8% with the top 25% of the group yielding 1.3%
Sheep/beef:	-4.7% with the top 25% of the group yielding 1.7%

- The middle third of the broadacre farms (medium farms) yielded an average rate of return between 1990 and 2000 for:

Wheat and other crops:	+3.7% with the top 25% of the group yielding 12.6%
Mixed livestock/crops:	-0.1% with the top 25% of the group yielding 5.2%
Sheep:	-2.0% with the top 25% of the group yielding 3.5%
Beef:	-1.5% with the top 25% of the group yielding 2.6%
Sheep/beef:	-1.5% with the top 25% of the group yielding 4.0%

- The top third of farms (large farms) had a positive average rate of return in all categories.

Within the small and medium farm groups it is reasonable to assume there are a significant number of broadacre family farms that were not viable in the decade to 2000 and this was

before the eight year drought. One option to contribute to the viability of these farms is to undertake activities that will bring urban income directly onto farms. The mechanism for consideration is multifunctional agriculture.

Multifunctional agriculture

In Europe, free trade and the cost/price squeeze of agricultural production coupled with the impact of rapid urbanisation and its effect on the availability and cost of agricultural land and thus size of farms are drivers for change in the agriculture sector.

This is demonstrated by the transition of agriculture from the post World War II modernisation era to the new era of rural development in which agriculture is seen and dealt with as part of a mix of disciplines and stakeholders in the rural environment. The Europeans refer to this transition as multifunctionality (Mason 2006). Examples of off farm income that brings urban capital into rural areas include:

Agritourism	Craft cooperatives	Internet marketing
Injury rehabilitation	Business training	Value adding farm produce
Organics	Data processing	Green energy
Carbon offsets	Art schools	Walking trails
Bird watching	Eco tourism	Yabbie farming
Fishing/ aquaculture	Horse riding trails	Race horse/horse agistment
Education – bread, cheese, yoghurt making	Direct marketing – farmers markets, box deliveries	Cluster development – regional branding
Bookkeeping services	Selling farm practices	Youth rehabilitation

In Australia there has been a similar drift that has yet to be associated with the concept of multifunctionality and not necessarily for all the same reasons as has been the case in Europe. One such example of this is Hawkesbury Harvest.

Hawkesbury Harvest

Hawkesbury Harvest Inc was formed in 2000 in response to concerns related to the impact of:

- Sydney's urban sprawl on farming lands and associated rural and ethnic communities
- the supermarket system on price equity and the viability of small family farms
- the fast food system on human health particularly the young.

Hawkesbury Harvest's genesis was the result of the intersection of global, regional and local forces in regard to food, farming and human health. The outcomes of the United Nations Rio de Janeiro Conference of 1992 provided the global force where the concepts of sustainability and economic development were articulated and codified in the Brundtland Report and the Agenda 21 program. The Healthy Cities program that developed out of this, represented by the Hawkesbury Food Program became the local institutional context for making the arguments about food, farming and health in the Sydney Basin.

The 'Strategic Plan for Sustainable Agriculture – Sydney region', released by the NSW Minister for Agriculture in May 1998, provided the regional force. This strategy was the result of a five year community/industry/government consultation process facilitated by the NSW Department of Primary Industries. During this time it was established there was significant interest in the retention of agriculture in the Sydney Basin for a range of social, economic and environmental benefits and reasons.

The third and vital force that was to combine with the global and regional elements to provide the ideal circumstances for Hawkesbury Harvest's germination was provided at the local level through the community surveys that Hawkesbury City Council had undertaken during the 1990s (again verified in 2007). The purpose of these surveys was to determine what its constituents valued most about living in the Hawkesbury local government area (LGA). In the overall responses to those surveys the highest priority value was the lifestyle offered by the rural landscape of the LGA. People were beginning to make the connection between rural landscape and sustainable agriculture.

These were the reasons Hawkesbury Harvest began. Articulating those reasons has contributed to the on-going success of the organisation. Part of the challenge to developing mechanisms that will contribute to on-farm viability, sustainable development, capacity building and associated community development is to identify the forces that are impacting on farming and associated rural communities at the local or regional levels. This then provides a context in which the knowledge, creativity and energy of people can be captured providing the grass roots input required for commitment to dealing with the situation, the process and its outcomes.

Outcomes

The 7th edition of the Hawkesbury Harvest map (Figure 1) was released in July 2011. It comprises approximately 60 farm based experiences and 20 complementary hospitality experiences. These extend from the mouth of the Hawkesbury River at Broken Bay right around the perimeter of Sydney and now down into the Illawarra. The map is segmented into five place based agritourism experiences – Sydney Hills to Brooklyn Harvest Experience, the Original Hawkesbury Harvest Experience, Penrith Valley Harvest Experience, Wollondilly Harvest Experience, and the South Coast Harvest Experience. This is a far cry from the first A4 single page three colour map printed off on a home printer in 2000 consisting of 13 raw destinations in the Hawkesbury LGA. Tens of thousands of people visit the Farm Gate Trail each year.

Figure 1. Hawkesbury Harvest map

The Hawkesbury Harvest brand is establishing itself to represent fresh and local food in the context of the 160 kilometre (100 mile) radius from the centre of Sydney. One of its commercial members, Pepes Ducks Pty Ltd uses the Hawkesbury Harvest brand on the packaging of its Grimaud Duck to indicate the product is fresh and grown in the Sydney region. Each Farm Gate

Trail destination has the Hawkesbury Harvest logo displayed in a prominent position. The Hawkesbury Harvest board is giving consideration to 'health' being promoted overtly with the 'fresh and local' theme.

Hawkesbury Harvest acts as a business incubator. A prime example of this is Kurrajong Native Foods. The owner of this very successful local business, Lee Etherington began with Hawkesbury Harvest in 2000 providing an eco-tourism experience at Kurrajong Heights. One tour group came across a native tree in fruit and it was suggested that the fruit be made into a jam. This resulted in Lee Etherington developing a range of native food products to sell through the Farmers Market system.

So successful was this move that Lee Etherington had to pull out of the eco-tourism business. Also so successful was the products he was selling in the Farmers Markets that he began to get enquiries from all around Australia and then from overseas. The export side of his business became mainly centred on the native hibiscus product that is added to a glass of champagne to provide flavour and visual effect. The demand was such that he had to pull out of the Farmers Market system to concentrate on the development of this aspect of his business. The Kurrajong Native Foods hibiscus can be found in a great many major airport and quality food outlets around the world.

Hawkesbury Harvest has played a significant role in the development of the pick-your-own operations on-farm around Sydney. Two chestnut and walnut farms at Mt Irvine in the Blue Mountains can have more than 1000 people picking nuts on a weekend during the season. Virtually the entire crop is harvested by pick-your-own. One apple orchardist at Bilpin estimates that 40% of his crop is harvested in this manner and the balance of the crop is sold through his farm gate shed.

Other mechanisms developed by Hawkesbury Harvest to bring urban income onto farms and associated hospitality industries include Farmers and Fine Food Markets, Open Farm Days, Special Events and Slow Food activities.

Regional application

At a practical level something is happening at the regional NSW level. Regional Development Australia Southern Inland is currently referring to the Hawkesbury Harvest model in its quest to establish an agritourism experience across the region. The main towns involved are Young, Boorowa, Harden, Yass, Gundagai, Tumut, Batlow and Tumbarumba with other towns under consideration.

Southern NSW Harvest Inc has been created and a constitution developed. It is envisaged this will provide the umbrella organisation, as is the case with Hawkesbury Harvest Inc, under which a number of place based experiences can be offered such as Poachers Way experience near Yass, and Hilltops experience based on the towns of Young Boorowa and Harden. This is the first step in tapping into the many benefits that the concept of multifunctional agriculture has to offer. There is still a way to go but there is a work in progress.

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