

**Submission  
No 3**

## **INQUIRY INTO ASPECTS OF AGRICULTURE IN NSW**

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The Chairman  
Standing Committee on State Development  
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Parliament House  
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## **Inquiry into aspects of agriculture in New South Wales**

### **Introduction**

The following is a submission to the current inquiry by the Standing Committee on State Development of the NSW Legislative Council which is focussing on the contribution of agriculture to the State's economy, impediments to sustaining appropriate levels of growth and initiatives to address those impediments.

The submission is made from the perspective of someone for whom rural geography was a principal area of teaching and research as an academic for more than 30 years including nearly 25 years at Charles Sturt University (Bathurst). Because that teaching and research has not continued since 1996, excepting that in relation to a recent small book, *Wingecarribee Our Home*, the submission is of a general nature and I will not fully reference my data. I hope nevertheless that my submission raises matters that committee and its support staff might care to explore in more detail.

The submission addresses four broad issues in the next following sections.

### **Contribution to the New South Wales economy**

While I am comfortable with asserting that the agricultural sector does not make a major contribution to the state's economy I must say also that the lack of satisfactory data on agricultural production at both state and more local levels makes it difficult to support this assertion.

The only reasonably current, reliable data on agricultural production is that from the Australian Bureau of Statistics (ABS). The ABS publishes annually in the national accounts data on the direct contribution of agriculture to the State's economy, ie data on the value added by agriculture to state product. It does not publish input-output data for the state, so no reliable data is available on indirect contributions to the state's economy. Nor does it publish

much that tells about value added by agriculture at more local levels or about the role of agriculture as a driver of regional and local economies.

The information published by the ABS on agricultural production at regional and local levels relates to estimated values of agricultural operations (EVAO) which is not a measure of value added but, rather, a crude approximation of the gross or farm gate value of production. Broad-scale data from both the Australian Bureau of Agricultural and Resource Economics (ABARE) farm surveys and the Australian Tax Office post code summary data on personal income which shows personal tax losses from primary production suggest that EVAO data may considerably overestimate values added.

Annual totals for the sector's EVAO by local government area (LGA) are published from time to time (but not for every year) in *Regional Statistics* (ABS Cat 1362.1 and previously 1304.1) but, as with area and number data for individual industries, EVAO data for individual industries are no longer published for LGAs. Data sets covering areas, numbers and EVAOs for individual LGAs have to be purchased (at a cost of \$400 for each LGA which is prohibitive for most independent researchers).

Even less information is publicly available on other dimensions of regional and local economies in which agriculture play a role. Although some of this may be available at a price, little economic data (eg on retail sales, manufacturing output, etc) is now published by the ABS at regional or local level. With the regional input-output tables prepared for NSW by in the mid 1980s by Roy Powell and others at the University of New England now hopelessly out of date (and not easy to access anyway) and few more recent analyses available for some regions, the economic impacts of agriculture have now become a matter of guesswork at regional/local levels..

In this circumstance a number of reports have become the basis for something of a mythology about the importance of agriculture. An example is a report from NSW Agriculture – now twelve years old – which put the annual value of agricultural production in the Sydney Basin at about a billion dollars with multiplier effects on other sectors amounting to five billion dollars. The basis for these numbers has never been clear but the billion dollar number was more than twice the EVAO reported by the ABS at that time. Nevertheless, these inflated numbers continue to be cited, as in a NSW Farmers' Association press release on 27 March 2007.

It may be that, if the ABS gets more access to ATO summary data from GST reporting (in the same way as it has access to personal income data from the ATO and other sources for its experimental estimates of personal income for small areas), the ABS may be able to resume publishing more regional and local economic data. In the meanwhile we really know little about the size and significance of agriculture regionally or locally.

Your Committee might consider recommending that the ABS return to publishing more comprehensive data on agriculture (and other economic sectors), regionally and locally, to enable a better understanding of the role of agriculture in the New South Wales.

### **Regional and local multipliers**

The great bulk of the state's net agricultural product is from broad-acre agricultural industries which, as various ABARE and ABS data have shows, generate returns on investment that are

low in comparison with those from other sectors of the economy and supports relatively few jobs directly. While agriculture may provide (perhaps along with government benefit payments) virtually the whole of the economic bases of many small towns, a cursory glance at census data on employment by sectors in larger towns and regions suggests that the employment multipliers of agriculture are generally quite low at regional level.

One reason for these multipliers being low could be that even larger regional centres can have difficulty supplying the infrastructure and support services needed by farms locally and regionally, certainly the larger and more sophisticated farms. Declines in farm numbers and increases in the sizes of many farm businesses may well undermine the economies of scale needed for infrastructure and services to survive locally. In such cases (Professor John Holmes has observed this in Queensland) some farm demand for infrastructure and support services may well be directed beyond regions and even to Sydney suppliers.

Another reason for low multipliers is the widespread failure of primary processors to set up, or to survive, in local and regional centres. Few larger regional centres are located where they might 'capture' agricultural products (eg wheat, livestock, wool, milk) as they move toward population and export centres along the coast in sufficient quantities to generate the economies of scale needed for processors to set up (to produce eg flour, meat, wool tops, dairy products). Hence, there is a disproportionate concentration of primary processing industries in the Newcastle-Sydney-Wollongong metropolis.

Obviously, intensive agricultural industries such as horticulture and some other irrigated agriculture do have employment and expenditure multipliers than are higher than general in agriculture (I recall that Powell and Gibson reported multipliers of 6 for irrigated agriculture). However, on the rather dated information that is publicly available, these industries which are localised mainly in Sydney Basin and Murray/Murrumbidgee irrigation areas, do not contribute a large part of the state's gross farm product (and probably a lesser percentage of net farm product).

Your Committee might recommend that the Department of State and Regional Development set up a bureau capable of analysing and reporting publicly on the regional economies of NSW, with reference to such matters as the role of agriculture.

### **The structure of agriculture**

There continues to be a widespread concern that land is being lost from agriculture to other uses and that these losses include continuing withdrawal of agriculture from the state's very limited supply of prime agricultural land in locations suitable for more intensive forms of agriculture and horticulture. This concern may be misplaced but, again, there is little comprehensive data available on rural land structure to test whether the concern is justified.

In the 1970s and 1980s alarms were raised about the apparent decline in both numbers of 'farms' and areas in 'agriculture' as reported by the ABS. There was then and there seems to remain little awareness that the criteria for inclusion in the annual ABS surveys of agricultural activity have changed rather often since the 1970s (see box). Analysis of ABS data since the 1960s suggests that most of the land 'lost' is likely to have been extensive areas of land never really used for agriculture, though many essentially hobby farms may also have been excluded.. Areas under crops and sown pastures and numbers of livestock have not fallen in line with apparent 'losses'

<p>'Rural holdings' of 1 acre or more to 1972/3,  'Rural holdings' of 1 ha or in 1973/4 and 1974/5,  'Rural holdings' of 10 ha or more in 1975/6  'Rural holdings' grossing \$1500 or more in 1976/7,  'Establishments' grossing \$1500 or more in 1977/8 to 1980/1,  'Establishments' grossing \$2500 or more 1981/2 to 1984/5,  'Establishments' grossing \$20,000 or more 1985/6 to 1990/1,  'Establishments' grossing \$22,500 or more in 1991/2 and 1992/3,  'Establishments' grossing \$5000 or more, in the years since.</p>
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Of course, this evidence does not deny the possibility that prime agricultural land is being taken out of commercial agriculture as was the case before planning legislation was used to protect this land for agriculture. Because the ABS has not reported data of holding structure for many years and because there is no comprehensive inventory of prime agricultural land in NSW it is uncertain how effective the planning system (largely through subdivision control) has been in protecting land resources but anecdotal evidence suggests that the planning system has been effective in this regard.

However it is less clear whether the planning system has been effective in protecting the commercial viability of agriculture. ABS data show continuing declines over more than three decades in mean areas of rural holdings/ establishments at both state and local levels. Anecdotal evidence again suggests that, in the face of demand for hobby farms especially along the coast and adjacent to most urban centres, rural subdivision continues apace.

Continuing rural subdivision and high rural land prices make it impossible in many areas for commercial agriculture to get acceptable returns on investments. They may also make it increasingly difficult for intensive agriculture (notably dairying and horticulture) to achieve scale economies necessary to enable fulltime commercial agricultural businesses to survive and respond to the pressures on farm economies. A particular difficulty is for farmers to enlarge the size of their businesses either by capital injections or by farm enlargement.

Injections of capital to make farms more intensive are often not appropriate (even when the capital can be raised). Land prices generally make it nigh-on financially impossible to enlarge farms via purchase or lease of nearby land. Most rental and other contractual arrangements (of kinds that are more common in Europe) offer little long term security of tenure for farmers. Rural consolidation may be the most intractable problem currently facing agriculture in New South Wales.

Your Committee might recommend in favour of finding more effective ways for commercial agriculture to compete against other sectors for both capital and rural land.

### **Uncertainties about future conditions**

Australia is not very clever in the way in which it shelters agriculture from uncertainties. Rather than supporting schemes that even out farm returns between the good years and bad and provide rural reconstruction assistance for farms that cannot survive in the long term, we allow agriculture to continue in its cycles of boom-and-bust caused by variations in prices and the weather, providing substantially public support (subsidies) to farmers when things go sour.

The current plan for the Commonwealth to put 10 billion dollars into 'securing' water rights in the Murray Darling Basin is a rather spectacular example of the way in which we resort to subsidies to fix symptoms rather than to addressing underlying problems (in this case an essential lack of water). It is not my purpose here to discuss the economic and environmental questions about this particular plan but rather to question whether this plan will be any more effective than other subsidies in giving farmers the price signals they need to adjust to uncertainties.

Agriculture in Australia is a very intensive user of fossil fuel energy, both on farms (directly and embodied in materials) and in the transport of materials and products. Published material on the extent to which agriculture relies on fossil fuels does not appear to be available but the general tenor of studies variously on energy balances in the sector (CSIRO, some decades ago) energy costs on farms (ABARE farm survey reports) and greenhouse gas emissions (Australian Greenhouse Office) suggests that the sector may be more fossil-fuel energy intensive than is manufacturing.

Excepting the solar energy that goes into crops and pastures, most of the energy used in agriculture comes from oil (though some industries are substantial users of coal-based electricity). In a world that almost certainly is now past 'peak oil' one very real future issue for agriculture in New South Wales is how the might reduce its dependence on fossil fuel energy, a matter that will be of increasing moment as petroleum prices inevitably spiral upwards.

An even more intractable uncertainty for agriculture is how the sector should respond to climate change. In 2004, the CSIRO reported to the NSW Government that it foresaw temperature rises in inland agricultural areas of NSW in the order of 2° above 2000 medians by 2030. On Bureau of Meteorology climatic averages this would be akin to Albury getting a temperature regime similar to that of Tamworth today (a rise of 3° would be akin to Sydney getting a temperature regime similar to that of Brisbane today). Rising temperatures are likely to be accompanied by some reduction in rainfalls.

Although there are seasonal variations in the changes forecast by the CSIRO, there is little in these forecasts that offers encouragement to agriculture in New South Wales. Indeed, if the forecasts turn out to be correct they foreshadow a significant retreat of broad-acres agriculture both to the south and towards the coast within a generation.

Geographical shifts in agriculture that could be as much as 30 kilometres a year imply needs for rural reconstruction over time. The needs will be both for farms to modify their systems of production and for the Government to plan where it should concentrate future investment in rural infrastructure and services such as rail, grain silos, advisory services and the like. The changes will be insidious and farmers will need Government leadership on how to adjust.

Of particular concern, given also the likely continuing encroachment of Sydney onto the alluvial soils of the Hawkesbury and Central Coast, is the question of what areas might be promoted as future suppliers of horticultural produce for population centres in the state. The question is significant because horticultural production has considerable needs for physical infrastructure and services to support production and marketing (what the Dutch describe as 'centre function') and there is a role for the State in sponsoring the development of such facilities in an environment of change.

Areas that might be promoted as having potentials to be major suppliers of horticultural produce include the Lower Hunter with less flood-subject alluvial soils and around Robertson with volcanic soils, both of which are likely to have relatively reliable climates despite warming and drying (and where land prices wont support much less than horticultural production). To realise these potentials entrepreneurs need guidance from the State Government on the horticultural future of these areas (and on possible structural changes that may be needed with geographical shifts in the industry).

Your Committee might urge the Government to prepare agriculture to adjust to the changes that are forecast to occur in both oil supplies and climatic conditions in the relatively near future.

### **Concluding observations**

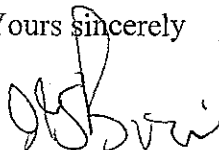
By value of output, agriculture – even if secondary processing of agricultural products is included – appears not to be an especially large sector of the New South Wales economy. Nevertheless, the state is a net exporter by value of primary and processed agricultural products. Locally, agriculture can be very significant both by way of providing economic for populations sufficient to support local infrastructure and services.

A problem such a observation is that current data to support it is not readily available. Much data that once was available to measure structure and performance of agriculture, especially at local levels, is no longer published by agencies such as the ABS or the Australian Bureau of Agricultural and Resource Economics even when it is collected.. In this circumstance it is difficult to make more than superficial comments on the contribution of agriculture and impediments to maintaining this.

However, it is clear that agriculture in New South Wales faces a difficult future in the face of structural challenges such as those presented by a continuing cost-price squeeze as well as emerging challenges such as those presented by an energy environment post peak-oil and by a biophysical environment that is subject to the consequences of climate change.

It would seem timely for the State Government to carry out a rigorous and comprehensive investigation of the production and marketing of agriculture and linked industries in the state and locally with a view to finding ways in which the Government might help the sector to face its future but without transfer payments (subsidies) to the sector that are of the magnitude of those implied by the Commonwealth's water plan for the Murray Darling Basin.

Yours sincerely



I J S Bowie