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Contributed Paper Abstract

**"Reassessing the Markets for Agricultural Services -
Implications for Governments"**

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Government involvement in agriculture is under scrutiny in most 'developed' countries throughout the world. Significant changes to government-based services have already occurred in most Australian states and in New Zealand.

This paper reports the findings of a 'review of recent reviews' on this topic. The paper compares and contrasts the rationale for reform, the assessments of the market environment, the role of government, as well as the policy and analytical frameworks developed in these contemporary reviews.

The aims are to provide a greater understanding of the key forces underlying adjustments in the levels of government intervention in agriculture, and a stronger basis for the more efficient allocation of public resources between competing demands.

REASSESSING THE MARKETS FOR AGRICULTURAL SERVICES

IMPLICATIONS FOR GOVERNMENTS

1. INTRODUCTION

The period of the last five years has witnessed a marked intensification in the agricultural sector of the broader process of public sector reform. This has occurred both in Australia and New Zealand, as well as in a range of countries of some traditional (but not necessarily current) economic significance (such as in England ...).

Governments' collective involvement in agriculture has been diminishing in a budgetary sense relative to other portfolio areas and sectors of the economy as well as in real terms in many instances. As a declining sector in terms of gross product, employment and trade, its political influence is being tested. Significant changes in government regulations and services to Australian agriculture have occurred and will continue to occur at all levels - Commonwealth and State Departments, CSIRO, Universities and a range of other government instrumentalities including marketing boards, rural assistance agencies and rural counselling services. The variability in these changes stems from differing weights of economic and political forces as well as the nature of these forces in creating the environment, if not the requirement for change.

Change has usually manifest itself in three (often contradictory) ways:

1. Diminishing overall budgets (and staff);
2. Expansion, both horizontally and vertically, in the focus and scope of programs and activities (and their clients!);
3. Increasingly commercial approach to service provision where possible (if not appropriate) in a strategic attempt to close the gap between the economic realities and political expectations/justifications suggested by 1. and 2.

Some more comprehensive 'co-commercialisation' approaches have recognised the potential to

general net social benefits by 'privatising' research or extension services (or the no longer appropriate parts thereof). Whilst there has been no typical contraction path for free government services in agriculture, extension services have usually borne the (perceived) brunt of commercialisation efforts (ahead of research), leaving policy and regulation as the less disputed preserves of government.

Many of the strategic responses to change have been developed through a broad review process, sometimes involving external consultants to government. As part of the NSW Government's reform initiatives, a fundamental review process (FRP) was implemented in 1990. This ongoing process required Departments to continually (re)examine the purpose of their programs and structures. NSW Agriculture's initial participation in this process was through the conduct of an internal review in 1991. A key outcome of this review was the establishment of a Policy and Planning Unit (of which these authors are now a part) and the commencement of a core project examining the changing role of government in agriculture. The project has two key aims:

- to improve the Department's understanding of the key dimensions and status of market operations within agriculture and related sectors, and the changing demands on government which are expressed or implied through these operations;
- to develop a policy framework to assist with the evaluation of efficiency increasing strategies.

More recently (late 1992) the NSW Premier has added a most significant independent perspective to the issue through his announcement of an external 'management and strategy' review of NSW Agriculture to be conducted in two stages during 1993. This review is consistent with, but not a part of, the FRP and Stage I¹ specifically aims to build on the recent reviews in the course of developing "... an economic and policy

¹Stage II of the review will test and further refine the framework in a management and organisational context through a number of application studies involving cost benefit analysis of programs, customer surveys and assessment of organisational issues.

framework and rationale for government involvement in agriculture in this State".

Thus while the commissioning bodies, the incentives and rewards may differ (significantly in some respects!), the focus of NSW Agriculture's study and the external consultancy on NSW Agriculture are essentially the same - the changing role of government in agriculture.

In this paper, the rationale for reform and assessments of developments in the markets (and missing markets) for government services are discussed in an attempt to identify some of the major claims on government. Approaches to filtering these claims through the application of economic and related frameworks are then considered before commenting finally on the emerging trends in government services to the agriculture sector.

2. THE RATIONALE FOR REFORM

2.1 At the Government Level

Reform in agriculture, along with all other sectors is essentially performance driven. Whilst in some other sectors, reforms may be designed to enhance the performance of expanding sectors of the economy, in agriculture's case (as would be anticipated in a relatively developed economy), it is more an issue of reforms being designed to manage the wide range of impacts potentially associated with the declining economy wide significance of a sector which had brought Australia to the very edge of wealthy/developed country status.

The declining economic significance of agriculture can be seen through a number of factors including:

- declining proportion of gross product at the national and state levels;

- declining significance as an employer;
- declining proportion of Australian export returns;
- declining significance in the overall prosperity and dynamics of rural towns (the uncoupling effect).

These factors when combined also translate into declining influence of the agricultural sector at the political level. Declining economic and political significance means a smaller budget allocation but there is a range of factors which can influence the extent of the reduction. These include,

- as contracting influences:

- poor performance of the economy as a whole;
- political philosophies favouring smaller governments, deregulation and recognising the need to respond to changes in the public/private interface;

- as ameliorating influences:

- the significance of linkages between agriculture and other sectors of the economy, - the downstream or vertical linkages extending to final consumers of food and fibre products and the sectors in between, currently promoted under the guise of value adding and creating an apparent increase in the significance of agriculture through the ascription of multiplier effects (both in economic and client terms);
- the emergence of widespread community interests in environmental issues. These have the effect of creating horizontal linkages and extending the recognition of agriculture as part of the broader

resource management interests of communities and government. Whilst this may expand the political influence of agriculture, this is critically dependent on the community viewing agriculture's influence on the environment in a positive light.

In the future, the agricultural sector is likely to face of further declines in its economic and political significance and of declining services from governments. Such declines may be offset, at least partially, by the extent to which the boundaries between agriculture and other sectors become 'blurred' along with its economic and political significance.

2.2 At the Department Level

Whilst the rationale for reform at the overall budget level is based on a need to balance economic and political factors, these factors often take on new guises as 'management efficiency and accountability' influences when determining reforms in the course of allocating a budget within a particular portfolio area.

Appropriateness, efficiency and effectiveness are promoted by management specialists as key criteria in allocation decisions. Ironically, whilst economists may be offended by the semantic distinctions inherent in the model, due to the scope provided under the appropriateness criterion to evaluate areas of focus or programs against a public economics framework, it offers a critical additional evaluative layer compared with those reflected by conventional benefits cost analyses of (for example) research priority issues.

Rather than government organisations taking the purpose of their programs and structures as given, the new 'managerialism' of government is challenging organisations to reconsider very basic questions about the nature and scope of their core activities and how appropriate they are within the

context of the overall role of government.

Whilst the management orientation of reform has introduced some new terminology to government (such as risk management, downstream autonomy, contracting out, customer focus, benchmarking, etc) there remain a number of terms with which we are all familiar such as cost reduction, maintaining services and 'new initiatives'. The rationale for reform thus remains the same irrespective of the level of government - it is about bridging the gap between budget realities and political expectations, ideally in a manner designed to improve agriculture's contribution to the economy.

3. THE DEMANDS ON GOVERNMENT

The environment confronting State governments in providing services to agriculture (and related sectors according to individual choices) is essentially similar across Australia. There are many dimensions to the environment ranging from external to internal (to the organisation); from sole traders and partnerships to multi-national corporations; from local government to international trading blocks; from farmers to consumers; from socio-economic to political; from pests and diseases to the broader environment; from conventional to organic; from low tech to biotechnology; from public goods to property rights; from efficiency to customer service. The activities of these and many more influences combine in a vast array of agricultural (and related) markets to yield a set of private goods and services which can be supplemented by a range of public goods and services when overall efficiency gains are likely to result.

Accordingly, not just the outcomes of market operations but the operations themselves become critical for monitoring by government for it is only through improved operations that a more efficient set of outcomes can result.

The demands on governments are endless and may be directly articulated by market participants or observed by governments on their behalf.

These demands are either efficiency or welfare based and are competitive for resources and, in many cases, in their nature and direction as well.

Government agriculture departments are currently being asked to examine their own efficiency and accountability, and to ensure complementarity and consistency between their functions and policies. This suggests a strong interest in the changing operations and outcomes of markets in which they are involved and the public/private interface. Claims for smaller government, efficiency, deregulation and industry self-reliance compete with demands for agriculture departments to commit resources both downstream and outwards in pursuit of further productivity gains in the food and fibre markets compatible with the efficient management of natural resources. Specific claims require government assistance with a range of issues including: technology; quality and marketing; farmer (and rural community) education and training; farm health and safety; public and private infrastructure, etc. Further claims reflect demands for government to broaden its efficiency oriented brief in the agriculture sector to incorporate a welfare component. These claims focus on adjustment assistance at the farm (including rural counselling) and rural community levels (developing rural infrastructures).

Whilst these efficiency and welfare claims are relatively direct and transparent (although not necessarily well specified), there is a range of other claims whose influence is more subtle. These include an increasing community scepticism about scientific views and their contribution to the 'state of the nation', and a general interest in cleanliness (food, air, water, lands and forests, etc.).

Given the breadth and multi-faceted nature of many of these claims, there is a pressing need for governments to have well founded principles with which to filter existing as well as new demands. Such a framework is essential if negotiations with stakeholders, clients and staff on future policy directions and implementation options are to yield consistent efficiency increasing results.

4. POLICY AND ANALYTICAL FRAMEWORKS

In recent years there have been a number of external reviews of public services to the agricultural sector. Three such reviews focused on specific functions provided by state agricultural departments to the rural sector, viz

- Review of Agricultural Research in Victoria, 1990;
- Review of Field-based Services in the Victorian Department of Food and Agriculture, 1992; and
- QDPI Extension Policy Review, 1990.

A fourth review involved a 'fundamental' review of all the functions of the South Australian Department of Agriculture:

- South Australian Department of Agriculture Organisation Development Review, 1992.

In this section the policy frameworks in each of the abovementioned reviews are examined to compare and contrast the analytical approaches.

4.1 Review of Agricultural Research in Victoria

This review was the first external review of DARA's research function in more than half a century. The timeliness of a re-assessment of research aside, straitened economic circumstances and demands for improved performance from public expenditure were identified as major grounds for the review. The Review Panel were requested to report on a number of issues relating to the conduct and funding of research within the (then) Victorian Department of Agriculture and Rural Affairs (DARA), particularly in relation to the linkages between public sector and private sector in the

Funding and conduct of research.

The arguments for government involvement in agricultural research proposed by the Review Panel rest mainly on the lack of appropriability of research benefits - where the products of research are of a collective good (or public good) nature. It is argued the inability for individuals or firms to appropriate research results leads to an under-investment in the production of these collective goods from society's viewpoint.

The Review Panel acknowledge the possibility that government will also be involved in providing private goods, often as a joint product with collective goods. However, the Review Panel argued governments involvement in producing private goods should be small, limited to commercially viable research outputs which arise by chance in the course of research, or research utilising excess capacity in the public research sector, with the proviso that this be undertaken on the basis of full-cost recovery.

On a more fundamental level the Review Panel acknowledge the role governments have to play in creating an environment in which the private sector is capable and willing to carry out research - for example, through the development and enforcement of property-rights.

4.2 Field-Based Services Review

The review of field based services including the advisory (extension) services provided by the Victorian Department of Food and Agriculture (DFA) and the enforcement of regulations, succeeded the review of agricultural research in Victoria. The Review Panel were directed to consider three major issues:

- the appropriate objective(s) for field-based services and implications for funding and service delivery;

- the adequacy of the present organisation and resources; and
- priorities for change in organisation and resource allocation to effectively and efficiently achieve the program objectives.

The Review Panel argue that the rationale for government involvement in agriculture depends upon the existence of significant levels of market failure. The most likely sources of market failure that could justify government involvement in information services were considered to derive from the riskiness of Australian agriculture, the public-good nature of certain forms of intervention, and the importance of externalities. The Review Panel also considered an organisation like the Department of Food and Agriculture is necessary to perform various functions related to crisis and emergencies such as bushfires, droughts, floods and outbreaks of diseases.

The Review Panel assert that arguments for government involvement do not apply with equal force to all industries or to all types of extension. Arguments about risk centre on the unstable demand for information services as farmers adjust their discretionary expenditures during periods of low incomes. Thus the argument for government involvement is considered to be strongest for the volatile broadacre industries and weakest for intensive livestock industries. The Review Panel also notes that the market structures of some industries lend themselves more readily to the provision of extension services that are financed and/or provided by the industries concerned.

On issues of funding, the Panel identify a class of extension activity traditionally conducted at taxpayer's expense which should be charged against the beneficiaries in a particular industry. "This occurs in circumstances where the program favours one industry that is in competition with other industries for access to either resources or markets" (DFA 1992,

p.45).

In essence, the policy framework for the field-based services review derives from the traditional public economics model which emphasises the role for government to redress market failures. Although the Review Panel identify broad classes of market failure, they find that the extent of market failure and consequently the role for government varies across and within agricultural industries.

The Review Panel argue the objective of government support in the provision of field-based services is primarily to improve industry competitiveness and productivity. The Panel contend it is extremely doubtful that extension services could be used as an effective means of achieving social welfare objectives.

4.3 Queensland Extension Policy Review

The task of the Queensland Working Party was to develop a policy framework which would also assist in program design and guiding resource allocation decisions. The Working Party were to examine the relevance and effectiveness of QDPI's extension services in contributing to sustained development of Queensland's agricultural and fishing industries. The report of the Working Party represented the first stage in the redesign of QDPI's extension programs. Second and third phases involve the finalisation of the policies and the implementation of new extension programs, respectively

In considering whether there is a need for public sector involvement in extension services the Working Party identify the dominant role of the market system within the Australian economy. The Working Party asserts "..... demonstration of a failure of these market mechanisms to achieve satisfactory economic performance should be a prerequisite for government involvement in agricultural extension". (QDPI 1990, p.40).

The nature of market failures identified by the Working Party include: imperfect market signals between producers and consumers; the inability of individuals to capture the full benefits and/or to incur the full costs of their actions; and the inefficiencies that exist in reallocating resources to more productive pursuits (p.34). Significantly, the Working Party identify two main strategies for the public sector to redress market failures - either by implementing effective market mechanisms, or by providing services to target groups. Furthermore, the Working Party urge that public sector involvement in these roles be evolutionary, enabling future transition to the private sector.

The Working Party's framework for extension policy follows the welfare economics approach with an emphasis on a strategic role for government in improving market operations rather than maintaining an ongoing commitment to service delivery. Furthermore, the Working Party interprets the scope of government involvement to the provision of public goods, where the 'community as a whole is the principal beneficiary'. Activities resulting in benefits to an individual or a group of individuals are considered to be most effectively and equitably executed by the private sector.

4.4 South Australian Department of Agriculture Organisation Development Review

The Terms of Reference of the ODR call for a detailed review of the South Australian Department of Agriculture with an emphasis on priority setting, service rationalisation and funding options. The ODR team began by emphasising the Department's role in economic development, arguing that environmental and social considerations "should be subsidiary to and complementary with the economic development goal" (SADI 1992a, p.3).

Within the context of maximising the economic value of agriculture to

South Australia, the ODR team proposed an 'opportunities and role' analysis as the key planning tool for the department. This methodology involved two factors:

- The annual opportunity to increase the contribution of any given commodity within the State.

The assessment of future opportunities appears to be an amalgam of technological and structural considerations, and market outlook information.

- The role of the Department in realising the opportunity.

The ODR team argue that in many instances there are other potential providers of services needed to realise opportunities. "The 'opportunities and role' methodology identifies those opportunities that can only be realised if the Department gets involved" (SADI 1992a, p.9).

The 'opportunities and role' methodology differs from the frameworks applied in each of the previous 3 reviews in a number of important respects:

- First, the identification of 'opportunities' focuses on the value of the agricultural industry as a consideration rather than the magnitude of the market failure.²
- Second, the argument that 'if not industry, then government' involvement is needed to realise opportunities places considerable importance on the capacity of the department to accurately identify

²The calculation of the economic contribution of the industry involves the addition of net value of production at farm gate to the value of product cost captured in South Australia, and value added by downstream industry, with adjustments for costs of resource use and industry assistance or protection.

unexploited 'opportunities' of high social value.

- Thirdly, it is not clear whether unrealised opportunities can be interpreted as arising from market failures, for example due to the problems of appropriability. However, the ensuing recommendation that effort or market and industry development should increase, suggests this is not the case.

The ODR team recommend a realignment of Departmental resources into high opportunity, major role commodities such as wheat and wine grapes and away from low opportunity, low role commodities such as pigs and poultry.

5. APPLICATION OF THE FRAMEWORKS

In light of significant developments within the agricultural sector and in the delivery of public services more generally, it is perhaps surprising that the terms of reference in only one review (SA Organisation Development Review) invited a fundamental re-examination of the role for government involvement in agriculture. This seems even more surprising when the previous external review of research in Victoria was conducted over 50 years ago. It remains to be seen whether the opposing forces of declining budgets and increasing demands for public services can be successfully managed by a process incremental of policy revision.

The reviews all identified a potential role for government where private firms appear unwilling or unable to operate. The Victorian and Queensland reviews also emphasised the importance of identifying significant market failure as a pre-condition for public sector involvement.

The emphasis on the role of government to redress market failures neglects the possibility that intervention by the public sector may also 'fail' or manifest serious deficiencies of its own. Consequently there is the risk of exaggerating the capacity

of government to intervene effectively, particularly in areas where the likelihood of 'non-market' failure is high. One of the paradoxes about the role of the public sector in the agricultural sector which has a bearing on the scope for intervention is that where community gains from intervention appear high, government is most likely to have limited capacity to intervene effectively. Conversely, the state can act most successfully in situations where private markets already work effectively. The fallibility of government is particularly important in the context of the South Australian review which recommends the public sector identify and support economic opportunities within the agricultural sector.

The QDPI review of extension services believes public sector involvement should be restricted to services where the community as a whole is the principle beneficiary. Strictly applied this policy would severely constrain the activities of the department, examples of 'pure' public goods being relatively rare. By contrast the Victorian reviews of research and field-based services and the South Australian ODR acknowledge that certain public services provide primarily industry or sectoral benefits.

The issue of funding arises when the beneficiaries of a public program are confined to a recognisable group. Although the principle of 'beneficiary pays' is generally endorsed for collective goods which provide industry benefits, a number of caveats apply - particularly where user charges jeopardise the 'public rationale' of the government's activities.

For agencies premised on providing public goods, the environment of commercialisation of public programs and priorities to develop closer industry linkages are particularly challenging issues both conceptually and in the management of public resources.

6. THE ROLE FOR GOVERNMENT - EMERGING TRENDS

The economic and political environment impinges on the analysis of the role for

government in a number of ways. First, perceived shortcomings in market operations or outcomes provide the basis for community demands on governments to provide a remedy. Second, the community expectations for public accountability and efficiency holds implications for the conduct of public services, whereas demands for 'smaller government' influence the scope of public sector activities. Finally, changes within the market environment affects both the capacity of individuals and firms to effectively provide goods and services, and the options for government involvement.

The consensus that increasing community demands on the public sector will be accompanied by increasing budgetary pressures on agricultural departments places a premium on the development of a framework for systematically discriminating between competing claims on government. Methodological frameworks developed have tended to focus on providing a rationale for public involvement in service delivery with subsequent attention on improving the effectiveness and efficiency of government services.

On a broader scale a number of trends emerge which have the capacity to significantly influence the role and functions of government in agriculture. A trend to recognise clients invites greater community participation in public policy development. Although there are gains to be realised from a more pluralistic approach to public policy, the move from an 'institution-led' process to 'client or market driven' programs endangers the 'public' focus of government programs unless governments retain a clear view on their role within the economy.

A subset of community discontent with the consequences of government involvement is the public disquiet for the wisdom and benefits of science. In both cases, the community's distrust for government has led to demands for less intensive forms of government involvement, with an emphasis on better informing the community rather than more prescriptive, interventionist strategies. Opposing this implied contraction of public sector activities are the demands arising in some quarters for government involvement in resource management, ensuring food safety

and promoting industry development.

A common theme of all reviews is the focus on industry efficiency and competitiveness as a key objective of government involvement. The prominence of efficiency objectives, reinforced by perceptions that agriculture is a business, occurs at the expense of the traditional notions of the family farm. Ironically this shift in perception tends to further erode the farming sector's political power and further undermines attempts to invoke 'social justice' or 'equity' arguments to garner public sector support for agriculture.

The trend to devolve greater responsibility to the private sector to meet society's needs, with government retaining a strategic role in fostering market efficiency, will continue to be resisted by sectional interests who perceive the scope to satisfy private wants with public means. Consequently, the framework for policy development is important not only for identifying the rationale for government involvement and in guiding resource allocation decisions, but provides the basis for engaging in more active and widespread debate regarding the future directions and scope of government involvement in the agricultural sector.

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