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Comments on the Productivity Commission Draft Report

Implementation of Ecologically Sustainable Development by Commonwealth Departments and Agencies

The Bureau of Rural Sciences is pleased to offer the following comments, which we have structured against the report's overview.

What is 'ecologically sustainable development'?

The BRS feels that your finding that there is *a lack of clarity about what ESD means for government policy* to be an important one. However we feel that it is important to distinguish this lack of clarity from the related issue of the ambiguity inherent in the definition of ESD. On 29-31 March, BRS hosted a national workshop of senior decision makers from policy, science and industry about the way in which the science/policy interface is working in the area of ESD. The meeting included senior executives from AFFA, CSIRO, EA, the states, industry and the universities. There was a broad consensus at the meeting that too tight a definition of ESD would be counterproductive to the furtherance of the agreed objectives of ESD. The meeting felt that a certain elasticity of interpretation was necessary to allow a broad range of stakeholders to sign on to the process and for them to continue to develop a dialogue.

We agree that the ESD issue is a complex problem for policy makers. As a scientific research agency focussed on sustainable development issues, the BRS has been stressing that this complexity is an irreducible aspect of the problem, composed as it is of physical, biological, social and economic aspects. We feel that some of the new scientific approaches coming from research in so-called complexity theory offer the promise of a more comprehensive and useful analysis of ESD issues. The BRS is presently trialling some of these approaches in forestry, multiple land use and fisheries.

How well have departments incorporated ESD into their activities?

We agree that *the area of natural resource management and environment protection* is one of the key areas where departments have worked actively on ESD. However beyond the need of these departments for ESD approaches lies an increasing ability to actually analyse complex problems, and an increasing availability of appropriate objective scientific data. This has led to a clear articulation by departments for 'evidence-based policy'.

For example, in the area of natural resource management, the BRS is providing policy makers with integrated assessments. These assessments join physical, biological, social and economic 'views' of a problem in a comprehensive model. Initially, for example in our work in the Murray Darling Basin or in Shoalwater Bay, these assessments were static representations of the current situation. Increasingly however, we are able to provide dynamic models, which allow policy makers to explore the consequences of possible policy actions through scenarios or 'what if' analyses. We are presently working on such systems for fisheries and oceans, irrigated farm lands, forestry and radioactive waste

disposal issues. The success of these more advanced approaches depends greatly on the availability of suitable data sets. This situation is improving rapidly.

What factors influence ESD implementation by departments?

We commented above on the issues of lack of clarity and the inherent complexity in ESD.

We agree that there are significant intra- and inter-governmental coordination issues and we will comment on some aspects of that below.

What are the implications of integrating economic, environmental and social considerations?

The Bureau firmly believes that such integration is a, perhaps the, *sine qua non* of successful ESD.

The irreducible complexity of ESD issues requires that they be handled, in some sense, in a holistic way. The key ESD issues arise not from the nature of the component entities themselves but from their interactions. The dynamics we wish to understand, whether of the economic, social or biophysical parts of the system, are themselves closely coupled with the dynamics of the other parts.

The Bureau has been at the forefront internationally in developing tools and techniques for such integrative analyses, and has been a major catalyst in the national push to improve the quality and availability of national scientific datasets to support this work.

We have also recognised the importance of social considerations by establishing a Social Sciences Centre within the Bureau to bring these aspects more comprehensively within the ESD orbit.

Improving ESD implementation

The Bureau broadly supports the integrated package of improved frameworks and processes described in the report, and agrees that they are mutually interdependent.

We support the idea of improved coordination at the policy level.

We also support the idea of improved monitoring and performance measurement, recognising that many ESD issues are ‘data intensive’ and that effective performance measurement is still embryonic in the ESD area.

In particular, we agree with the draft recommendation (7.3) that the framework of the National Land and Water Resources Audit should be expanded to encompass performance measurement. The Bureau is working closely with the Audit in developing a post-Audit strategy in these technical areas and will seek to embed this thinking in this work.

The Bureau recognises the importance of creating a solid scientific underpinning for ESD performance measurement. It has undertaken several research projects in this area in recent times, including the development of a framework to measure progress towards the attainment of ESD objectives in fisheries. The framework allows for assessment of the effects of fishing on both the environment and the total quality of human life and indicates the trend over time in relation to pre-defined ESD objectives. BRS has also completed an inhouse project on the consonance of ESD indicators over different activities and scientific disciplines.

We will sponsor a major national conference on the broad theme of ESD measurement later in the year in order to place the issue firmly on the national science agenda and to map out a strategy for developing the necessary science.

We do not support draft recommendation 7.4 to do with the ABS assuming major responsibility in natural resource and environmental areas. Our problem with the recommendation is twofold.

Firstly, we believe that the present coordination mechanisms for biophysical data are working well. Much of the data collection effort resides naturally with the states, while much of the analytical effort at the national scale resides naturally with the Commonwealth. Over the last ten years a successful decentralised cooperative model has evolved through the Australian & New Zealand Land Information Council (ANZLIC) for interjurisdictional matters and the Commonwealth Spatial Data Committee (CSDC) for intra-Commonwealth matters. This voluntary approach has led to the development and adoption of the Australian Spatial Data Infrastructure by all parties, greatly facilitating the whole data collection and dissemination process. We are concerned that this process not be upset by the centralisation of responsibility into the ABS.

Secondly, we are not convinced that the ABS has the necessary skills or knowledge to manage a process involving spatially organised biophysical data. Much to the concern of many of its clients, the ABS has been unable to geocode its own flagship activity, the census, making its products hard to integrate with fully geocoded data from the biophysical areas. Geocoding technology has been available for spatially based data, such as the population census, for at least 20 years, and we would have expected at least the last few Australian censuses to be geocoded. Sadly not even the next one will be. We feel that the ABS would be better occupied, and its clients much better served, if it used its scarce resources in bringing its own important datasets up to a modern standard.

Priorities for the further implementation of ESD

The Bureau has no further specific comments to make on the issues raised here.

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