



Premier of New South Wales
Australia

Mr Ian Dundas
Secretary to the Committee
House of Representatives Standing Committee on Environment and Heritage
Parliament House
CANBERRA ACT 2600

Dear Mr Dundas,

Thank you for the opportunity to contribute to the House of Representatives Standing Committee on Environment and Heritage's Inquiry into Public Good Conservation. The delay in responding is regretted.

The New South Wales Government's submission to the Inquiry is attached.

Yours sincerely

Roger B Wilkins
Director-General

What is meant by public good conservation?

It is important for the Committee to consider this issue in the broad context of the major policy changes that have been occurring over the past quarter of century at the international through to State levels in natural resource/environmental management. In particular, the Committee should consider the goals and objectives of Ecologically Sustainable Development (ESD) as expressed in the National Strategy. The acceptance of ESD as the underpinning to environmental management has required all industry sectors, that either use natural resources or have an impact on the environment, to enhance their “environmental performance”.

The concept of “private and public good” is directly related to ESD objectives and principles. Implicit in ESD is the recognition of the limited capacity of the environment to provide essential ecological processes and the imperative to maintain this capacity to support the welfare of both current and future generations (ie. intra- and inter-generational equity). “Public good” relates to both forms of equity. ESD requires that the activities that derive “private good” do not reduce “public good”.

These concepts are reflected in the NSW Government’s Policy for Sustainable Agriculture. This Policy identifies the protection and restoration of the natural resource base and the prevention of adverse on-site and off-site impacts on the environment and any other sector of the community as two fundamental aspects of “Sustainable Agriculture”.

The description of “public good conservation” in the Issues Paper is somewhat misleading and inadequate. In particular, the reference to the case where legislation prevents the landholder from clearing does not recognise the inherent limitations of using different parts of the landscape and associated soil, water and vegetation resources (ie land capability). For example, the landholder should not be permitted to clear steep land with shallow soils due to the externalities caused by such an activity irrespective of any short-term benefit for the landholder.

It is also important to recognise that there are often private benefits associated with “conservation activities”. An example of this is where water users seek compensation for environmental flows without taking into account the benefits they will receive in the form of improved security of access, improved water quality and so on resulting from the associated changes.

These types of issues have been examined in several previous inquiries such as:

- The Commonwealth’s Inquiry into Ecologically Sustainable Land Management;
- The Commonwealth’s discussion paper “Managing Natural Resources in Rural Australia for a Sustainable Future”;
- The mid-term review of the Natural Heritage Trust;
- The Prime Minister’s Science and Environment Innovation Council.

The following policy documents are also directly relevant:

- Cost-sharing for On-ground Works, Murray-Darling Basin Commission, June 1996;
- Principles for Shared Investment to Achieve Sustainable Natural Resource Management, SCARM, July 1998, and
- National Framework for the Management and Monitoring of Australia's Native Vegetation, ANZECC, December 1999.

The Inquiry should draw on, and build on, these previous studies, including the respective inputs by State Governments in those processes.

In relation to the approaches adopted to conservation activities overseas, two papers were presented to the 44th Annual Conference of the Australian Agricultural and Resource Economics Society (23-25 January 2000) in Sydney that provide an insight into the European and United States policies on assistance to the agricultural sector for achieving conservation outcomes. It needs to be appreciated that these schemes are operating under different political agendas that strongly influence the approaches to government assistance. The papers, including *European agri-environmental policy facing the 21st century*, *Evolution of agri-environmental policy in the United States*, and *First or second best solutions? Looking back on Australasian agri-environmental policy from 2020*, are available on www.general.uwa.edu.au/u/aares/invited0.htm and it is recommended that these papers be brought to the attention of the Standing Committee for consideration.

In addition to those conservation measures listed in the Issues Paper, it is recommended that the Committee consider the implications of the following conservation activities:

- Soil erosion control and remediation;
- Noxious weed management and eradication;
- Soil acidity and acid sulfate soil management and remediation;
- Water quality management;
- Organic effluent and biosolids use on agricultural land.

These issues, along with those in the Issues Paper, are receiving both government and private input and derive both public and private benefit.

Impacts of conservation measures and their costs

Agricultural landholders, like other businesses, need to be profitable to support their shareholders (often a single or several families directly involved in the business) and to stay in business. Agriculture depends on sustainable management of natural resources and, while this is by no means a new concept, it is most strongly appreciated by farmers who depend on knowing which areas of land they can use for development, water access and environmental conditions. However, a range of factors including declining commodity prices, has made it increasingly difficult for many farmers to manage their enterprises sustainably.

The imposition of additional conservation requirements on farmers with fixed resources may alter the capacity of the business to make the profits necessary to remain viable. If those conservation requirements provide some public benefit then there may be a case for government assistance. In many cases, however, there are also significant private benefits from additional conservation activities, in the form of increased productivity, increased property value or opportunities for greater diversity of land use. This is illustrated by a recent study in the Gunnedah area that found that maximum pasture yield is obtained when 34 per cent of tree cover on a property is retained (Walpole, S.C., 1999. *Assessment of the economic and ecological impacts of remnant vegetation on pasture productivity*, Pacific Conservation Biology, 5: 28-35). Furthermore, a number of other studies have found that approximately 30 per cent tree cover is vital to both production and the maintenance of native species (Walpole, SC., 1999). These findings demonstrate that in some cases there may be very little “gap” between private and public good.

The impacts of conservation measures on landholders are therefore often specific to an individual landholder, because they depend on the state of resource degradation, the financial status of the business, the assistance provided to implement the change and the personal and business plan for the farm. The Inquiry would benefit from case studies developed with farmers to identify the specific impacts of conservation measures in a range of situations.

An example of the range of private and public costs and benefits associated with “conservation activities” associated with the Floodplain Management Program is provided in Appendix A.

An example of the range of public benefits derived from biodiversity and examples of incentive schemes and mechanisms to ameliorate the costs of conserving biodiversity is provided in Appendix B.

Sharing costs

Cost sharing has been extensively studied and the Committee is referred to the Standing Committee on Agriculture and Resource Management (SCARM) discussion paper “Principles for Shared Investment to achieve Sustainable Natural Resource Management Practices” (endorsed at SCARM meeting 12 on 29 July 1998). The SCARM paper provides a discussion of general principles for shared investment decisions for natural resource management activities. The paper intentionally uses the term “shared investments” rather than “cost sharing” as the former gives equal emphasis to costs and benefits. This broader term recognises there are many factors considered in making investments. It applies to a number of policy instruments not just on-ground works. Furthermore, there are a range of policy instruments available to government and the community, such as education, training, information transfer, regulation, planning, incentives research and adjustment; many of which are largely funded by government.

The SCARM paper identifies “overarching principles” for determining whether an activity should be considered for government funding. In general, governments only contribute:

- a. where there are significant public benefits;
- b. up to a level sufficient to trigger necessary investment towards self-correcting, self-perpetuating natural resource systems; and
- c. where the activity is technically sound, is likely to produce outcomes consistent with identified priorities, and the benefits justify the costs.

The SCARM principles also provide a number of examples where shared investment by government is not appropriate. These include where:

- a duty of care applies – landholders and other resource users have a duty of care to take all fair and reasonable measures to ensure that they do not damage the natural resource base. Many types of on-ground works are part of a duty of care and no government support need apply to such investments; and
- private benefits are sufficient incentive – some on ground works provide sufficient private benefits to make the investment worthwhile.

The discussion of sharing of costs raises additional issues relating to property rights. The Issues Paper implies that land holders have a right to compensation for conservation. There are two arguments that could be mounted against this proposition.

- Polluters pay: Whether the community should assist landholders' conservation depends on whether pollution generated by landholders has lead to the need for the conservation. There is a general principle that polluters pay. If this principle is applied, landholders should be responsible for all the costs of remediating all environmental impacts that have resulted from land management activities.
- Do conservation requirements infringe landholders' rights?: Decisions on cost sharing are irrevocably linked with concepts of what activities a landholder has the right to carry out. The concept of the rights for landholders is changing from the frontier mentality, where a landholder could do anything they wanted with their land, to the right of landholders being limited based on the principles of ecologically sustainable development. The community should only provide compensation when landholders' rights have been infringed.

The development of cost sharing arrangements is a process of negotiation based on agreed principles and good information. If the process is sound, then a mutually acceptable sharing of investment in conservation can be achieved.

It is noted that the development of regional natural resource management plans (eg for native vegetation and water) involves socio-economic impact analysis. Analysis are primarily used to consider the equity implications of proposed management actions.

Considerable work is progressing in the natural resource management field on the development of Decision Support Systems based on Geographic Information System and modelling technologies that can generate alternative management scenarios and identify the distribution of potential costs and benefits associated with these scenarios.

Financial assistance for conservation by landholders

Some of the NSW Government assistance schemes to facilitate the adoption of conservation practice by landholders include:

- Land and Water Management Plans which provide assistance to irrigation communities on negotiated cost sharing arrangements for improved land and water management.
- NSW Vegetation Management Fund which involves property agreements and financial assistance for native vegetation retention and management;
- NSW Water Use Efficiency Incentive Scheme which provides financial assistance for training, irrigation and drainage management planning, redevelopment of irrigation on farm to improve water use efficiency and monitoring of farm irrigation efficiencies.
- Special Conservation scheme which provides assistance to farmers to implement changed practices that will provide benefit to the community, land or environment.
- Voluntary Conservation Agreements are voluntary, but legally binding agreements, that require current and future landholders to manage the area for conservation. Permanent protection is guaranteed. Financial support to assist in on-ground management and non-financial support, such as the provision of technical or management information, is provided.

More details on some of the above schemes is provided in Appendix C.

Currently, the terms of trade for many agricultural products are declining. This is predicted to continue. The future of agriculture in many areas will depend on producers continually finding ways to improve productivity. Governments can, and do, support this by partly resourcing research, extension, market assurance and development and where necessary restructuring. This kind of assistance provides a financial benefit to landholders and creates a reciprocal obligation.

Local community involvement in the development and implementation of conservation outcomes and subsequent support schemes is essential. In NSW, the implementation strategies for Government commitments to water reform, improved native vegetation management, remediation of acid sulfate soils, and noxious weed and feral pest control (amongst others) are developed in strong partnership with the stakeholder communities. The strategies then include realistic and agreed trade offs and cost sharing, based on local information, scientific support and agreed outcomes.

Potential Opportunities in Developing Markets for Ecosystem Services

In recent years the symptoms of unsustainable development have become more apparent. These symptoms are evident at the global level (eg climate change and biodiversity decline) and national level (eg salinity). There has also been increased understanding of the role that natural and semi-natural ecosystems play in providing and maintaining essential life support processes such as the purification of air and water, renewal of soil fertility, recycling of wastes and regulation of the hydrological cycle.

Market-based incentives are being explored and developed which recognise and value the range of goods and services that ecosystems provide i.e. create “industries” which provide “public goods”. These incentives have the potential to facilitate the transition to alternative agricultural systems that will contribute to reducing land and water degradation, reducing greenhouse emissions, conserving biodiversity and providing economic sustainability for regional communities. These incentives also present significant potential to reduce the “gap” between private and public good.

Ways the Commonwealth could assist State programs

While the Committee should concentrate on Commonwealth activities, it is essential that any such activities are integrated with State and Local Government support and that all three levels of government are working cooperatively.

There is a need to ensure that public funding from all levels of government is directed towards achieving strategic outcomes. In this regard, the need to better target Commonwealth funding has been identified in the Mid-term review of the Bushcare Program.

Catchment Management Boards are currently being established in NSW and will be required to develop catchment plans that identify key objectives and targets for achieving equitable and sustainable natural resource management outcomes. It would be very desirable for the Commonwealth to use the targets and priorities provided in these plans, in conjunction with those in other regional natural resource management plans (particularly those for water and native vegetation), as the basis for allocating Commonwealth funding.

The Commonwealth could also work with NSW in developing the necessary institutional structures needed to develop the market-based incentives described above.

APPENDIX A

FLOODPLAIN MANAGEMENT PROGRAM: PRIVATE AND PUBLIC BENEFITS AND COSTS

The DLWC Floodplain Management Program is aimed at encouraging appropriate management of floodplains in urban and rural areas. Recent policy directions for rural areas reflect a shift from management largely concerned with mitigation of flood risk towards management that considers environmental and social values. Preferred options for floodplain management are adopted in community-owned floodplain management plans.

DLWC manages works on inland rural floodplains through its licensing powers under Part 8 of the *Water Act 1912*. Some landholders have constructed works in the past to block flood flows to wetlands so agricultural pursuits such as cropping and grazing can be undertaken. Recent floodplain management studies have highlighted these works and recommended that options to restore flood regimes to wetlands be pursued.

Several coastal rural floodplains in New South Wales, especially on the north coast, contain extensive wetlands that have been significantly modified through the construction of flood mitigation schemes during the 1950s and 1960s. These areas are largely in private ownership and are used for cattle grazing. DLWC is actively encouraging environmental sustainable management of floodplains through promoting landholder management of flood control structures to ensure water is retained in natural wetlands, with natural wetting and drying cycles still occurring. After extensive consultation, landholders in some areas are willing to retain enough water in wetlands to ensure the return of water-tolerant vegetation species to the fringes of the wetland. This will also provide fodder during drought refuge. These actions constitute a largely private benefit, as it allows grazing to occur in larger areas for a longer time period.

In order to restore the wetland to a high conservation area (as it was prior to drainage and agriculture), more water would need to be retained in the wetlands following flood events. This component would represent a public benefit. Benefits from restoration are related to the environmental value of particular wetlands. Environmental value of wetlands varies depending on a range of factors including size, representativeness of wetland type and potential habitat value. Public benefits include gains in biodiversity, aquatic habitat value, fisheries, flood storage etc. Benefits to individual landholders may result from increased insect predation by waterbirds, ecotourism opportunities, enhanced visual amenity and local environments.

In both coastal and inland rural areas, costs (of restoration) are dependent on the size of the wetland relative to other land in production, the type of agricultural production and the extent of additional flood protection works that may be required to protect other property.

Current funding programs can provide assistance to landholders for the cost of works required to restore the flooding regime and to maintain wetlands. However, this funding does not offset any net costs arising from lost agricultural production.

APPENDIX B

BIODIVERSITY CONSERVATION AS A PUBLIC GOOD

Whilst it is difficult to quantify the benefits of biodiversity, there is no doubt that the community profits, both directly and indirectly, from biodiversity conservation, restoration and repair. Although the products and services derived from biodiversity are often undervalued, biodiversity is increasingly being included in environmental accounting and cost-benefit analysis.

Direct benefits derived from biodiversity include:

- High economic returns through tourism and increased land values, due to scenic and amenity values.
- Clean air and water (including pollutant breakdown and absorption).
- The productivity of recreational and commercial fisheries.
- Forestry and wildflower industries which rely on the harvest of biological resources.
- Increased agricultural productivity (eg increased lambing rates, reduced winter feed requirements, insect control).
- Sustainable agriculture through reduced land degradation and provision of habitat for local species. (The CSIRO has estimated that land degradation is costing the Australian economy more than \$1 billion annually.)
- Soil production and fertility, nutrient storage and cycling.
- Maintenance of hydrological cycles (groundwater recharge, watershed protection).
- Genetic resources for medicines and industrial products.
- Recreation areas for local communities.
- Cultural identity and natural heritage. This is of particular significance to indigenous communities whose cultural heritage is indivisible from nature/biodiversity conservation.

There are numerous incentives schemes and similar mechanisms available to landholders to ameliorate the costs of conserving biodiversity. Incentives may be of a financial or non-financial nature such as provision of extension services. The following list is indicative.

- Commonwealth, State and local government grants to individuals or community groups to undertake particular conservation works.
- Differential rating and taxation measures. In NSW, for example, rate rebates are provided to landholders who enter into Voluntary Conservation Agreements to manage particular areas of land for biodiversity conservation. There is a strong case for Commonwealth taxation reform in this area.
- Management agreements. Essentially, arrangements whereby landholders agree to manage areas of conservation value on their land. Financial incentives can be used to encourage landholders to enter into these agreements, which

may either be voluntary arrangements or legal instruments that bind landholders for a fixed period or in perpetuity.

- **Property right and market-based measures.** An alternative approach to providing incentives for biodiversity conservation is to create markets for conservation and management. The approach is to create a value for a scarce environmental asset by creating tradeable property rights over its use. An example is the market created through greenhouse gas emission trading. As a carbon sink, the conservation of existing vegetation and revegetation activities may have a market value in off-setting emissions.
- **Revolving funds.** Capital funds set aside specifically to purchase land with conservation significance. When such land is purchased, a covenant is placed upon its title to ensure future maintenance of the conservation values identified. The land is then sold to sympathetic purchasers. Councils with sufficient funds can use this mechanism to change the status and hence development potential of key sites in a transparent and equitable manner, reducing potential land use conflict.
- **Development benefits.** Where a property owner is allowed specific development or subdivision benefits in return for setting aside a part of the property for conservation or rehabilitation. Performance/assurance bonds may be used to ensure that conditions are met.

Despite these mechanisms, there is still room for policy and legislative frameworks to be reviewed to remove disincentives to the uptake of conservation partnerships. Similarly, there is an ongoing need for awareness raising and education programs on the values of biodiversity conservation.

THREATENED SPECIES CONSERVATION

The NSW Threatened Species Conservation (TSC) Act 1995 provides for the conservation and recovery of threatened species. One of the features of the legislation is the integration of threatened species conservation into development control processes established under the NSW Environmental Planning and Assessment Act 1979. This approach has considerably reduced the need for licensing activities that impact on threatened species.

The TSC Act does recognise, however, that public, and private, costs can result from threatened species conservation. As a result, the Director-General of National Parks and Wildlife is required to minimise adverse social and economic consequences, consistent with the principles of ecologically sustainable development, when granting concurrence or approving a licence application. The NSW National Parks and Wildlife Service is currently developing guidelines to assist in the assessment of socio-economic impact.

Although there is no provision for direct financial support to ameliorate any private costs incurred from implementing threatened species conservation

measures on private land, every effort is made to identify potential costs in the socio-economic assessment process and to minimise these through modifications, for example, to species recovery and threat abatement programs.

FINANCIAL ASSISTANCE SCHEMES

CONSERVATION ENGINEERING (INCLUDING FARM WATER SUPPLIES).

Involves the provision of impartial, professional advice and technical input on soil and water conservation matters, drought-proofing of properties and related resource management issues.

The State and Commonwealth Governments offer incentives including loans, grants and taxation concessions for the implementation of soil and water management measures.

The **Special Conservation Scheme** provides long term, concessional interest loans through the NSW Rural Assistance Authority and DLWC to farmers implementing strategic soil conservation and on-farm water supply works.

The **Cap & Pipe the Bores Program** is a jointly funded initiative of the NSW and Commonwealth Governments that provides grants for the rehabilitation of artesian bores and the conversion of bore drains to pipes in the Great Artesian Basin (GAB). The program is aimed at reducing wastage, restoring artesian pressure, re-activating mound springs, conserving bio-diversity and encouraging the adoption of sustainable land and stock management practices.

SECTION 10 SOIL CONSERVATION PROJECTS

Section 10 Soil Conservation Projects are community driven schemes, coordinated on a catchment or sub-catchment basis to treat, control and prevent land degradation and so-called because they are declared under Section 10 of the Soil Conservation Act.

Projects provide a focus for the community, facilitate the coordination of well designed structural works and the adoption of sustainable land management practices to protect catchment health and minimise off-site impacts.

They have proven very effective in achieving catchment wide land rehabilitation, coordination of overland flows, treatment of erosion and sedimentation and fostering changes in community attitudes and practices

Section 10 funding is usually provided as:

- a direct contribution to the cost of critical works which have significant off-site impacts, clear community benefits or beyond the capacity of the average landholder to fund.
- a fixed share of the cost of structural works.
- a share of the cost of works on a sliding scale depending on the degree of erosion hazard.

LAND AND WATER MANAGEMENT PLANS

Land and Water Management Plans (LWMPs) address sustainability issues of formerly Government-owned irrigation schemes. LWMPs are based on a beneficiary pays cost sharing basis which is generous. The beneficiary pays approach was taken for LWMPs only after considerable analysis of the various funding options.

NATIVE VEGETATION MANAGEMENT FUND

Established under the Native Vegetation Conservation Act, the Fund is available to landholders who enter into a Property Agreement or Management Contract with the Department of Land and Water Conservation. Moneys from the fund are available for a range of on-ground works including fencing, control of pest plants and animals, regeneration and revegetation activities.

Unlike the Bushcare program, there are no limits on funding for certain activities, and the full cost of fencing and other works, including labour, is available for both Management Contracts and Property Agreements.

Property Agreements are generally registered on title for a specified time period or 'in perpetuity', and so are binding on successors in title over the specified time period. Management Contracts are not registered on title. When a payment from the Native Vegetation Management Fund is to exceed \$10,000, the landowner must enter into a Property Agreement.

VOLUNTARY CONSERVATION AGREEMENTS

Voluntary Conservation Agreements (VCAs) are voluntary, legally binding agreements, registered in perpetuity on the title of the land in question, which require current and future landholders to manage the area for conservation. VCAs help protect a range of nationally and regionally important vegetation communities (some of which are not already protected in the national reserve system), threatened species, significant wetlands, areas of cultural significance to indigenous communities, and other areas of scientific, geological and educational importance.

Many of the participating landholders are already actively committed to managing their properties for conservation and the VCA provides them with the guarantee that their land will enjoy permanent protection. Other benefits include:

- financial support to assist with on-ground management (see below for details);
- preparation of plans of management and access to technical advice to assist with the management of the conservation area;
- exemption from Local Government rates over the land covered by the VCA (Under Section 555 of the *Local Government Act*);
- exemption from payment of land tax for those areas approved by the Director General of National Parks and Wildlife which are managed to maintain and protect endangered species. (Provision detailed under the *Land Tax Management*

Act, as a general policy the National Parks and Wildlife Service recommends that VCA offer the required approval from the Director General.)

- assurance of ongoing assistance and support from government to the landholder.

The NSW National Parks and Wildlife Service (NPWS) provides funding to cover materials and labour required for initial on-ground management works. The type of works required and associated average funding assistance provided is summarised below. On average, a VCA landholder can receive between \$5,000 - \$10,000.

Works	Type	Funding average
Fencing	Material and labour	\$6000 / km*
Gates	Material	\$90 / gate
Erosion control	Material / labour	\$5,000
Revegetation / Weed control	Native plant stock, equipment	\$2,000
Revegetation / weed control	Labour	\$18/hour
Feral animal control	Material	\$100
Flora and fauna surveys	Labour (2-4 days intensive)	\$3,000 each
Signage		\$3,000
Track construction	Material and labour	\$12,000

*variable depending on terrain and type of fencing required.