

**PRODUCTIVITY COMMISSION INQUIRY INTO NATIVE
VEGETATION AND BIODIVERSITY REGULATIONS**

VICTORIAN GOVERNMENT SUBMISSION

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Executive Summary

This submission details Victoria's approach to native vegetation and biodiversity protection and management on private land. Its basic assumption is that the best biodiversity outcomes will be achieved by using a range and mix of policy tools and mechanisms in a co-ordinated way. Legislation underpins the system by establishing minimum requirements, while other tools can produce improved biodiversity outcomes beyond current obligations.

Considerable effort is being directed to reversing the decline in the condition of our land, water and biodiversity assets in rural landscapes. Despite this, we are continuing to lose native vegetation, see reductions in the viability of threatened species and communities of native flora and fauna, increasing salinity, and degradation of our land and water resources.

Victoria recognises that work needs to continue to protect, restore and enhance native biodiversity and to maintain and improve the *ecosystem services* necessary to ensure the continuing productivity of agriculture, fisheries and forestry, as the community expects.

Victoria continues to identify, trial and implement innovative policies, tools and mechanisms to further the restoration of our natural assets, work towards establishing sustainable industries and ensure the community continues to have the capacity to derive its needs from rural land.

The Victorian Government acknowledges that the delivery or supply of biodiversity protection and management outcomes by private landholders includes the provision of *ecosystem services* that have a range of public and private benefits. The approaches currently under investigation in Victoria aim to determine the appropriate level of government and private investment, beyond 'duty of care,' to ensure the continued provision of these ecosystem services into the future.

The Victorian environment protection and biodiversity conservation system is also important in achieving Commonwealth Government objectives in matters of national environmental significance. In recognition of this, the Victorian system

should be accredited under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* through a comprehensive bilateral agreement.

The Victorian Government recognises the permanent care of our natural environment as one of the most important duties of any government. In fulfilling this duty, the State Government policy is to incorporate environmental and conservation considerations into all aspects of planning and government program delivery and build the principles of ecologically sustainable development into the process of decision-making across the whole of Government¹.

¹ *Victoria's Native Vegetation Management Framework – A Framework for Action*, Department of Natural Resources and Environment, 2002.

Recommendations

That the Commission note:

Protection and management of native vegetation and biodiversity on private land provides *ecosystem services* that have a range of public and private benefits. Victoria is currently investigating approaches to determine the appropriate level of government and private investment to achieve outcomes beyond 'duty of care' and to ensure the continued provision of these ecosystem services into the future.

Victoria has an effective integrated system for the protection of native vegetation and biodiversity. It includes market-based instruments, voluntary schemes, education, subsidies and grants all underpinned by legislation and regulation. This system ensures native vegetation and biodiversity are protected in Victoria to the maximum extent practicable and seeks to make net gains in the extent and quality of protected native vegetation.

Almost \$15 million of State and Commonwealth funds are invested directly within Victoria each year on native vegetation protection and revegetation programs and this contribution is more than matched by on-ground work by Landcare groups and other community members. Further to this, combined State and Commonwealth natural resource management investment through the regional catchment investment process for 2003//04 will exceed \$100 million.

Victoria is continuing to work on increasing its range of market based and voluntary instruments to further improve the efficiency with which improved environmental outcomes are gained. Market based mechanisms can secure biodiversity outcomes beyond the current regulatory obligations.

The Commonwealth could achieve more efficient outcomes in assessing and protecting matters of national environmental significance by:

- recognising the comprehensive and high level of protection afforded to biodiversity within Victoria, and its role in achieving Commonwealth objectives in this area; and
- accrediting medium-high level Victorian processes through a bilateral agreement with Victoria.

1.0 Background

European settlement has had a considerable effect on Victoria's biodiversity. Of the 90 species of non-marine mammals known to have inhabited Victoria upon European arrival, 19 are now extinct in the state. Five of these are now totally extinct in Australia. Many other species have much diminished populations and distributions. More than 900 species of Victorian plants are rare or threatened (Department of Natural Resources and Environment 1997).

In 1869, Victoria's forests and woodlands were estimated to cover nearly 88% of the State (approximately 20 million hectares). By 1967, this cover had declined to about 35% (approximately 8 million hectares). Of the remaining forest and woodland around 70% is modified.

Grasslands and grassy woodlands once covered about one-third of the State, mostly in the north and west. Today, 95% of these have been lost or degraded, principally due to their conversion to agricultural lands. Victoria has a well-developed reserve system on public land. National Parks, State Parks, Wilderness Areas and Nature Conservation Reserves comprise over 16% of the State. Biodiversity protection and management is also achieved through management zones in state forests established under Regional Forest Agreements and through management of other Crown land, including water frontages.

Over two thirds of Victoria is private land. Of this, some 95% of tree cover has been lost (Barson et al. 2000). The extent of clearance varies around Victoria. Accessible and relatively fertile landscapes that were developed for pastoral and agricultural activities have been the most affected. These areas now contain the most severely depleted and poorly reserved ecosystems in Victoria.

There are two major legacies of this history of clearing. Many of the ecosystems upon which our presence and productivity depends are now beyond the point of sustainability and the biodiversity that built and maintained these ecosystems is

also in decline². Many threatened habitats and species are now confined to private land. For example, about 29% of known threatened species populations occur on private land, 38% within parks and reserves and 18% in state forests. Thus, private land has an important role to play in conserving nearly one third of our threatened species. Private land is also important for species that move between places to obtain essential resources. Such movements include migratory, regional, seasonal and altitudinal movements.

Tools used in Victoria

For freehold land in Victoria, there is a range of regulatory and non-regulatory measures available to achieve broader sustainable planning and land management outcomes including biodiversity.

The Victorian approaches to native vegetation on private land include:

- ***Policies and Frameworks:***

Victoria's Biodiversity Strategy, Victoria's Native Vegetation Management Framework, Melbourne 2030, and the Regional Catchment Strategies and Regional Native Vegetation Plans that provide the framework and broad direction for native vegetation and biodiversity protection and management in Victoria.

- ***Legislation:***

Planning and Environment Act 1987; Flora and Fauna Guarantee Act 1988, Catchment and Land Protection Act 1994 that identify landowner obligations and duties with respect to native vegetation and biodiversity.

- ***Government-assisted voluntary and community programs:***

Includes voluntary private land conservation programs such as Land for Wildlife and Trust for Nature and assistance through programs such as the Natural Heritage Trust; National Action Plan for Salinity and Water Quality; *Second Generation* Landcare; and Growing Victoria's Greenhouse Sinks to assist landholders and the community achieve native vegetation and biodiversity outcomes.

² *Victoria's Native Vegetation Management Framework – A Framework for Action*, Department of Natural Resources and Environment, 2002.

- **Land Purchase:**

The Victorian Government Conservation Land Purchase Program gives priority to purchasing properties, which contribute to a Comprehensive, Adequate and Representative Protected Area System by enhancing coverage of ecosystems that are not represented or are substantially under-represented in protected areas. Other properties are purchased for their contribution to ecosystem linkages and improved park management.

- **Environmental management in agriculture.**
- **Market-based approaches** such as BushTender.

Despite the substantial efforts and progress of Government and landholders in protecting and enhancing native vegetation on private land in Victoria, we still have permanent loss of native vegetation at an estimated 2500 hectares a year and the quality of the remaining native vegetation continues to decline³.

Market based approaches have the potential to augment current programs by encouraging the participation of a broader spectrum of landholders, while ensuring that improved biodiversity outcomes beyond current obligations under regulation are secured in a cost effective manner.

Mechanisms such as *BushTender*TM, an auction based approach, show promise in furthering the protection and management of native vegetation on private land.

The uses of market based approaches may also provide a means for determining the appropriate level of government and private landholder investment to improve native vegetation protection and management.

Other market-based tools under development include eco-labelling and third party offset schemes.

³ *Victoria's Native Vegetation Management Framework – A Framework for Action*, Department of Natural Resources and Environment, 2002.

2.0 Victoria's Approach: Protecting and managing biodiversity and native vegetation on private land

The Victorian Government employs a range of regulatory and non-regulatory measures to ensure improved biodiversity and native vegetation conservation on private land in Victoria within a broader sustainable and land management framework.

2.1 Victorian government policies and frameworks

2.1.1 Victoria's Biodiversity Strategy

Victoria's Biodiversity Strategy (Department of Natural Resources and Environment Victoria 1997) provides a framework to help manage biodiversity resources. The objectives of the strategy are to ensure that within Victoria:

- There is a reversal in the long term decline in the extent and quality of native vegetation, leading to a net gain - with the first target being no net loss by the year 2001;
- The ecological processes and the biodiversity dependent upon terrestrial and marine environments are maintained and, where necessary, restored;
- The present diversity of species and ecological communities and their viability is maintained or improved across each bioregion;
- There is no further preventable decline in the viability of any rare species or of any rare ecological community; and,
- There is an increase in the viability of threatened species and in the extent and quality of threatened ecological communities.

2.1.2 Native Vegetation Management Framework

Victoria's Native Vegetation Management Framework – A Framework for Action (Department of Natural Resources and Environment 2002) establishes the strategic direction for the protection, enhancement and revegetation of native

vegetation across the State. The Framework has as its primary goal the reversal, across the entire landscape, of the long-term decline in the extent and quality of native vegetation, leading to a *Net Gain*. Net Gain is the outcome for native vegetation in Victoria where overall gains in quality and quantity are greater than losses and where individual losses are avoided where possible. The losses and gains are determined by a combined quality-quantity measure and over a specified period of time. Gains may be either achieved through required offsets for permitted clearing actions or as a result of landholder and Government assisted efforts that are not associated with clearing.

In the context of a range of implementation approaches, the *Framework* establishes a standard methodology for how native vegetation is to be assessed for protection and enhancement and identifies the approach for accounting for changes in native vegetation quality and quantity.

A mix of approaches is required to achieve the Net Gain goal and together they need to have the following characteristics:

- continued effort to avoid clearing, with an improved focus on the most significant native vegetation;
- active management aimed primarily at improving the quality of existing remnants;
- long-term commitment by Government and landholders to the management task;
- developing understanding by landholders of the need for extensive revegetation;
- increasing the capacity of landholders and rural communities to undertake vegetation protection, management and revegetation works.

The Statewide Framework provides the guiding principles for managing native vegetation to achieve a Net Gain and the underlying method for determining conservation status and conservation significance as well as Net Gain

outcomes. It relies on the regional Native Vegetation Plans to set regional priorities to achieving Net Gain.

2.1.3 Regional Catchment Strategies & Regional Native Vegetation Plans

Catchment Management Authorities (CMAs) have responsibilities under the *Water Act* 1989 for the co-ordination and management of floodplains, waterways, rural drainage (including regional drainage schemes), water quality, Crown Land water frontages and heritage rivers outside of national parks within each of the ten Victorian Catchment Management Authority regions.

They also have responsibilities under the *Catchment and Land Protection Act* 1994 that include the coordinated development and implementation of the Regional Catchment Strategies and a range of other activities focussing on integrated natural resource management outcomes.

CMAs are the major advisory body to government regarding funding priorities for catchment management particularly in respect of private land and are the key mechanism for the engagement of private landholders and the broader community to deliver voluntary natural resources management outcomes. CMAs operate using implementation committees that tackle the catchment issues identified in the Regional Catchment Strategies. CMAs are responsible for the preparation of Regional Vegetation Plans as part of their regional catchment strategies. These plans provide strategic directions for protecting and enhancing remnants and establishing regional targets for native vegetation types. They link to the planning system through the provision of regional guidelines for Responsible Authorities and Referral Authorities in determining permit applications to remove, destroy or lop native vegetation subject to a range of exemptions designed to facilitate normal domestic and rural practices. They also identify priority actions that demonstrate investment value with priority given to protection and management of remnants, enhancement of degraded remnants and revegetation.

Regional Catchment Investment Plans (RCIPs) assist partners in each catchment region to implement their Regional Catchment Strategy priorities and

outcomes. The investment plans provide a rationale for directing investment into a suite of integrated NRM programs described for a 3-year period.

Victoria requires the plans to draw on the range of integrated natural resource management policies, strategies and programs at Commonwealth, State and Catchment Region levels. RCIPs are also informed by a number of more specific strategies relating to issues such as biodiversity, salinity and river health at state and regional levels.

In their foundation year, Regional Catchment Investment Plans have reflected a Natural Resource Management '*assets based*' approach that recognises the *services* provided by these assets and the '*threats and risks*' to these.

Integrated NRM programs and projects have been developed based on consideration of options to improve or stabilise services that assets provide. Options have been considered in terms of scale, cost, timing and likely benefit.

Programs and projects may be *place-based* or focused on alleviating particular threats. In subsequent years, the resultant change in service level from the proposed programs and projects using a weighted combination of asset value, benefit and cost will allow a *ranking* of the programs and projects for a catchment region.

2.2 Statutory protection of native vegetation

2.2.1 *Planning and Environment Act 1987*

The *Planning and Environment Act 1987* provides the planning system through which environmental implications of development projects can be considered. The Victoria Planning Provisions (VPP) provide the standard format and the Statewide standard planning provisions for planning schemes in Victoria. By guiding development and restricting use and development generally in sensitive areas, planning schemes enable areas to be protected from inappropriate uses, which would negatively affect biodiversity. A key component of the VPP is the State Planning Policy Framework (SPPF), which comprises the State planning policies for all land in Victoria.

Statewide Native Vegetation Retention (NVR) controls were established under the provisions of this Act and introduced in all planning schemes in 1989. The NVR controls require a planning permit to remove, destroy or lop native vegetation subject to a range of exemptions designed to facilitate normal domestic and rural practices. These provide base level control, while more stringent local controls may apply in sensitive areas.

The SPPF states that Responsible Authorities should have regard to any relevant Regional Vegetation Plans when amending planning schemes and reviewing Municipal Strategic Statements.

Local government is usually the Responsible Authority for administration and enforcement of the planning scheme including decisions on permit applications. However, the Department of Sustainability and Environment is the Referral Authority for a range of applications including those to clear more than 10 hectares of native vegetation, and the clearing of any native vegetation on any road reserve. The Responsible Authority must include any conditions on a planning permit issued which a Referral Authority requires to be included and must refuse to issue a permit if the Referral Authority objects.

Local Government across Victoria is directly involved in the conservation and protection of biodiversity assets on private land. The *Biodiversity Planning Practice Note* (Department of Infrastructure 2002)⁴ identifies the role that local councils play in the delivery of biodiversity outcomes, in particular the role of planning schemes and the use of local planning policy and overlay schedules to protect and manage biodiversity at the local level.

⁴ http://www.dse.vic.gov.au/web/root/domino/cm_da/nrenpl.nsf/frameset/DSE+Planning

2.2.2 Catchment and Land Protection Act 1994

The purpose of the *Catchment and Land Protection Act (CaLP) 1994* is to set up a framework for the integrated management and protection of catchments; encourage community participation in the management of land and water resources and set up a system of controls on noxious weeds and pest animals. It provides for the declaration of special areas and the development of management plans to address specific land management issues in those areas. Catchment Management Authorities develop and implement Regional Catchment Strategies under the CaLP Act.

2.2.3 The Flora and Fauna Guarantee Act 1988

The *Flora and Fauna Guarantee Act (FFG) 1988* provides a legislative foundation to guarantee that all taxa of Victoria's flora and fauna can survive, flourish and retain their potential for evolutionary development in the wild. Complementary goals are to conserve communities of flora and fauna; manage potentially threatening processes; ensure that any use of flora or fauna by humans is sustainable; and ensure that the genetic diversity of flora and fauna is maintained. The Act lists threatened plant and animal species, biological communities and potentially threatening processes and requires landholders to obtain permits if they want to collect listed species or undertake any activity that might kill, injure or disturb listed species and communities. The Act provides for the preparation of *Action Statements*, that describe the actions that have been, and will be, taken to conserve listed species and communities via a 'partnership model' for responsible management involving government agencies, local government and the community. The Act also drives various programs that foster community education and provide voluntary agreement opportunities. Victoria's Biodiversity Strategy has been prepared as a requirement of this Act.

2.3 Identifying the right mix of approaches

There are a number of policy mechanisms that can provide for desirable biodiversity and native vegetation outcomes on private land.

Victoria has traditionally focussed on delivering biodiversity outcomes via a mix of regulation and investment through information and education programs. More recently, market-based mechanisms have been successfully developed and Victoria continues to investigate the relative benefits of alternative approaches for their ability to achieve desired biodiversity and native vegetation protection and management outcomes in a cost-effective manner. As a general rule most voluntary, self-regulatory and/or market-based mechanisms are underpinned by regulation.

These mechanisms have a varying capacity to deal with biodiversity protection and management assuming defined targets and outcomes. By specifying targets and outcomes, it may be possible to consider a mechanism's cost and benefits relative to those of alternative mechanisms.

To explain further, to attain additional units of an environmental good, the mechanism (or combination of mechanisms) that is most cost-effective or efficient should be chosen. At the point where society receives diminishing returns (in terms of benefits relative to costs) of a mechanism, then it may be desirable to switch to an alternative mechanism that is more cost effective/efficient. In considering each mechanism, all costs should be considered, including transaction costs.

It will be unlikely that these additional units of environmental benefits will be obtained using one mechanism alone; it may be more effective and efficient to use two or more policy mechanisms jointly. Using these mechanisms jointly may provide synergistic effects, and hence improve cost effectiveness and efficiency.

The total estimated level of existing biodiversity and native vegetation protection and management, coupled with pre-existing policy mechanisms, is likely to

affect choice of the most suitable policy mechanisms. The transaction costs involved with these policy mechanisms is also likely to influence the choice.

To date, investigations have revealed that biodiversity protection and management on private land can be characterised by:

- Non-market values - Biodiversity assets are generally not bought and sold by private sector players. Hence, they generally do not have a *market* value even though they may be valued by society at large.
- Asymmetric information - Landholders know their opportunity cost of undertaking conservation but an environmental agency does not know these costs. The environmental agency may know its preferences across biodiversity assets, but landholders may have different priorities.
- Non-standard Benefits - The value of a management action or actions may differ widely across areas.
- Non-standard landholders - Landholder preferences for the type of engagement mechanism will vary.
- Multiple Outcomes - A management action in one area may affect several environmental assets. For example, planting native trees may have some biodiversity value, but may affect water quality and quantity.
- Public / private benefits – Improved biodiversity and native vegetation protection and management on private land may have both public and private benefits, for example, conservation of biodiversity and the provision of ecosystem services that help sustain agricultural systems.

If different policy mechanisms handle one or other of these characteristics differently, then it will probably be the case that a mix of policy mechanisms will be required to adequately deal with biodiversity and native vegetation protection and management. Different policy mechanisms give landholders the flexibility to choose the mechanism that best suits their enterprise or need. Mechanisms that reveal information about the cost of achieving certain outcomes may be

more likely to deal with these issues cost effectively, because they allow resources to be allocated on the basis of “value for money”.

For many goods and services in the economy, prices assist decision-makers to identify optimal combinations of inputs or outputs that achieve their goals. At present there are two important missing pieces of information about many environmental goods:

- Supply prices: the cost of getting additional units of an environmental good using a particular mechanism. An investor should be interested in both the budgetary cost of achieving these additional units, and the *economic* cost (the total cost to everyone in the economy, not just the investor cost).
- Willingness to pay: the benefit that society derives from securing additional units of an environmental good (ie, what economists call 'demand').

The mechanisms for improved protection and management of native vegetation and biodiversity currently adopted or under active investigation in Victoria include:

- Information and Education
- Legislation and regulation (such as native vegetation retention)
- Auctions (such as BushTender™)
- Flat-rate subsidies (such as grants for revegetation)
- Land Purchase (that adds to the public reserve)
- Offsets (as proposed under the Native Vegetation Management Framework)
- Eco-labelling

2.3.1 Information and education

Land for Wildlife

Land for Wildlife is a Victorian Government program that was cooperatively established with the Victorian Bird Observers Club. It aims to establish voluntary non-binding agreements with landholders for land to be managed for biodiversity conservation. Over 5800 properties are now participating, including more than 125,000 ha of habitat. A second major component of the program is an extension and education service aimed at encouraging a conservation-orientated approach to property management. The program does not offer financial incentives but provides technical and management advice to landholders on biodiversity protection and management.

Trust for Nature covenants

The *Victorian Conservation Act 1972* established the Victorian Conservation Trust (now the Trust for Nature (Victoria)) which has the power to enter into voluntary conservation covenants with landholders. The Trust is supported by Government and private funds.

Trust for Nature covenants are legally-binding agreements regarding the use of land, which are registered on the property title. Over 420 covenants have been issued over the last 15 years covering more than 18,000 ha of private land. The Trust also operates a 'revolving fund'. Under this scheme land is purchased then resold with a covenant. The sale proceeds are then used to purchase further properties. Voluntary but binding agreements may also be made under the *Conservation, Forests and Lands Act 1987* and the *Wildlife Act 1975*.

Community support

Victoria, in partnership with the Commonwealth Government has made substantial investments in protecting and enhancing the state's natural assets through the *Natural Heritage Trust* (NHT). The Bushcare component has seen over \$36 million invested in on-ground works to reverse the decline in extent

and quality of native vegetation over the four years of the program. Arrangements for the second phase of NHT are still being finalised.

The *National Action Plan for Salinity and Water Quality* (NAP) has been developed as a joint initiative between the Commonwealth and State Governments. Through the seven-year life of this agreement Victoria will allocate at least \$152 million of new funding. This will enable coordinated and targeted action to address salinity issues, improve water quality and facilitate biodiversity conservation.

The *Second Generation Landcare* program makes available State government funding for community projects by groups and in some cases individuals to assist with natural resource management projects, to provide a catalyst for changing land management practices and promote and protect biodiversity values. Under the project, Regional Catchment Strategies identify Action Plans including Native Vegetation Plans and investment decisions for on-ground works are driven by regional priorities as identified in these plans.

Growing Victoria's Greenhouse Sinks (GVGS) is a program aimed at creating carbon sinks through revegetation to ameliorate the Greenhouse effect, however other benefits, in the form of reduction of land and water degradation and conservation of biodiversity are also achieved. GVGS has been operating for three years with about \$1.0 million per year allocated for revegetation with indigenous species. This program has been extended to \$3 million over the next two years.

2.3.2 Legislation and Regulation

The use of incentive-based policy approaches for environmental management relies on regulations to define property rights, facilitate the modification of property rights and to specify the rules within which markets will operate.

In Victoria's case, the legislative and regulatory framework for native vegetation defines, in effect, a landholder's 'duty of care' for biodiversity on their land. For example, the initiation of native vegetation retention controls in Victoria, under

Planning Schemes, weakened landholders' property rights to native vegetation in some instances, transferring power from landholders to the community.

2.3.3 Auctions (such as BushTender trial)

In recent years, the Victorian Government has designed and implemented market-based approaches that aim to engage a broader range of landholders while also providing a better resolution of the cost sharing arrangement between the Government and individual landholders.

BushTender™ is an auction-based approach to allocating conservation contracts. The approach involves each participating landholder submitting a bid to supply biodiversity management services that improve the quality or quantity of native vegetation on their property. Landholders determine their price to supply these services and this forms the basis of their bid, which is compared against the bids of all other participating landholders.

The Government as the investor ranks bids on the basis of the conservation value of the site, the amount of service offered by the landholder and the landholder bid. Successful bids are those that offer the best “value for money” and these landholders receive periodic payments for their services over the period of the management agreement.

By asking landholders to bid the price at which they are willing to supply services, the auction reveals information about landholders' relative cost of supply. Further, the approach requires the investor to be explicit about biodiversity priorities and services. Landholders learn which activities maintain and improve environmental quality, and even which environmental assets are most valuable to the investor. In other words, the auction works as an information-sharing mechanism that should improve decision making about investments.

BushTender depends on:

- a metric to express biodiversity preferences. This was made up of a scarcity element termed the Biodiversity Significance Score (BSS) and an improved management element termed the Habitat Services Score (HSS); and

- a mechanism that revealed the opportunity cost of changing land-use for biodiversity protection and management (the bids provided by landholders).

Using this approach, each proposal for protection and management actions submitted by landholders is assessed on the basis of the expected biodiversity outputs per dollar of additional investment ie. the supply price.

There have been two BushTender trials in Victoria to date: the first in parts of the north-east and north-central regions of Victoria; and the second in three areas of Gippsland. To date, the BushTender trials have allocated a total of \$1.2m for landholder contracts.

The results of the trials indicate that the auction process can be successfully operated to establish native vegetation management agreements. Landholders supported the mechanism and actively participated. Biodiversity priorities were successfully identified and secured through the site assessment and bidding process. In both trials, participants and successful bidders have represented a typical cross-section of landholders in the region and, at for at least some participants, it was the first time that they had engaged in a government environment scheme.

2.3.4 Flat Rate Subsidies

A subsidy offers a payment to a landholder for each unit of output or input. For example, a landholder may receive a fixed payment for each metre of fence constructed to protect remnant native vegetation or riparian zones.

The advantage of flat-rate subsidies on inputs is that they are generally administratively simple and can be successful at assisting key sectors of the private landholder audience deliver biodiversity outcomes.

Their relative cost-effectiveness depends on the program's ability to identify and address priority biodiversity and native vegetation protection and management issues across the spectrum of private landholders.

2.3.5 Land Purchase

Government is a supplier of biodiversity through its public reserve system and has the option of improving biodiversity protection and management by purchasing and managing private land.

The Government makes targeted purchases of land each year usually to address critical gaps in the reserve system.

Land purchase is best used where this mechanism offers better value for money than other mechanisms. This involves considering a range of factors when determining whether to use this mechanism to achieve biodiversity outcomes, including the cost of managing the land, its purchase price, and the biodiversity gains associated with the land.

Large areas of land adjoining an existing reserve may have low on-going management costs, as these areas would more effectively utilise existing management resources, but may offer habitat that is relatively well represented in the existing reserve system.

Alternatively, small isolated areas of habitat, distant from existing reserves, may have higher ongoing management costs but may contain habitat that is not well represented in existing reserves.

Land purchase can be used in conjunction with the auction approach outlined earlier, providing the opportunity for suitable biodiversity outcomes to be realised in a variety of ways: short-term management or long-term protection and management contracts; or property sale (where a government agency undertakes subsequent management). In this way, landholders could choose the type of contract they preferred, and the investor could assess bids on a value for money basis.

2.3.6 Offsets

The *Victorian Native Vegetation Management Framework* sets out the rules under which offsets are to be applied in Victoria. The required offset responses will be graded according to conservation significance while also applying *like-*

for-like rules to ensure that there is a clear link between the vegetation that is lost through clearing and the subsequent mitigation. Habitat hectare is the site-based measure of quality-quantity of native vegetation in Victoria. This is used to ensure losses through clearing and gains through offsets are appropriately accounted.

Offsets are closely linked to legislation, in that they attempt to maintain a given quantity of environmental good but at a lower total economic cost than regulation/legislation on its own.

Offsets generally operate as follows: they hold the quantity of a good (e.g. biodiversity units) constant, and then require that a proponent who hopes to reduce the stock of the good (e.g. by clearing) to organise and fund an offset of a required amount to compensate for the loss. This offset may come in the form of revegetation somewhere else, or improvement in the quality of other existing remnants, etc.

The Department of Sustainability and Environment and Department of Primary Industries are currently investigating ways in which permitted native vegetation clearing could be “offset” through third party agreements. This approach could provide flexibility for landholders in the way that they choose to secure required offsets as stipulated in a permit to clear native vegetation. If a landholder could not organise an offset on their own land, they may achieve it elsewhere through a third party, who would determine the price that the landholder would have to pay. This may be possible through the use of a BushTender-type approach that would enable the cost of biodiversity credits to be determined.

The exact manner in which those offsets would be priced, and the possible structure of such a program, are yet to be fully determined.

2.3.7 Facilitating market advantage – Eco-labels and Environmental Management in Agriculture

Consumers may value ‘superior’ environmental management of biodiversity or native vegetation, and some may be willing to pay a premium for products that

claim to deliver this. Eco labelling refers to the use of a label that signals some product attribute that may be difficult to verify for a consumer.

Victoria has been examining how information asymmetries between primary producers and consumers can affect the development of markets for such attributes, the signalling mechanisms businesses use to reduce these, and what role government could take to make such markets truthful and most efficient.

The use of Environment Management Systems (EMS) in Agriculture is another voluntary approach to natural resource management in agriculture receiving considerable attention in Victoria and which may generate price premiums, increased market access and improved farm management.

The Victorian Government recently committed to provide scientific and policy leadership, establishing and articulating environmental objectives and targets, and providing education and information in relation to this initiative. The Government supports EMS as one of many voluntary approaches, but does not offer financial incentives for EMS adoption.

To further encourage and facilitate the integration of native biodiversity into EMS, the Victorian Government has produced a discussion paper on *Incorporating Biodiversity into Environmental Management Systems for Victorian Agriculture* (Anderson *et al.*, 2001).

3.0 Changing biodiversity and native vegetation protection and management approaches through time

It is important to recognise that the costs and benefits associated with these or any new mechanisms may change over time. The use of new and better information to revise the policy mixes is referred to as 'dynamic efficiency'.

Achieving dynamic efficiency may involve investing in mechanisms that may not be most efficient in one time period alone, but may be efficient over several time periods. This could be because transaction costs of a certain mechanism decrease in future periods, or because the mechanism facilitates feedback about the supply price of biodiversity and native vegetation protection and management to policy makers.

Mechanisms that reveal information about:

- the investor's preferences in terms of biodiversity conservation (through the use of a biodiversity metric); and,
- the cost of obtaining additional units of the investor's preferred metric,

have strong feedback loops, allowing biodiversity protection and management to be achieved more efficiently over time. In essence, this is because biodiversity preferencing and cost combine to give the investor information about the supply price of biodiversity.

If policy makers are able to learn about the supply price of biodiversity through policy implementation they will be better able to set and revise targets or budgets so that they are more closely aligned with the social demand for biodiversity.

Similarly, the community will be able to better identify preferences for ecosystem services such as biodiversity protection and management, with the advent of better information. The ability to express these preferences to the government may also result in more efficient outcomes.

This type of information will allow policy makers to set aims and targets, policy direction and budgets for biodiversity protection and management that are likely

to be most efficient. Such dynamic and adaptive systems enable the allocation of resources on the basis of 'value for money,' so that they can achieve the best overall outcome.

4.0 Commonwealth contribution to biodiversity conservation on private land in Victoria

In Victoria, the Commonwealth Government largely approaches biodiversity protection and management on private land through investment in subsidy programs such as the Natural Heritage Trust and the National Action Plan for Salinity and Water Quality and through legislation such as the Commonwealth *Environment Protection and Biodiversity Conservation (EPBC) Act 1999*.

4.1 Investment

The Commonwealth, in partnership with the Victorian Government has made substantial investments in protecting and enhancing the State's natural assets through the *Natural Heritage Trust* (NHT) and the *National Action Plan for Salinity and Water Quality* (NAP).

The Commonwealth and State governments are developing and committing to a more integrated, investment driven approach, including focus on the 'triple bottom line' through the Regional Catchment Investment Planning process.

Combined State and Commonwealth co-investment through the regional catchment investment process for 2003/04 in regional projects exceeds \$100 million.

4.2 Legislation

Currently, there is no effective accreditation of Victorian processes under the Commonwealth legislation and this results in increased transaction costs to Government and landholders or proponents whose actions may trigger assessment and or approvals requirements under the EPBC Act.

Proposals in Victoria requiring approval under the EPBC Act are subject to a Commonwealth assessment process in addition to requirements of Victorian legislation. There have been a number of proposals in recent years that have required approval under the Victorian *Planning and Environment Act 1987* or the

Flora and Fauna Guarantee Act 1988 and have also required either parallel or subsequent assessment under the Commonwealth regime.

This situation inevitably leads to duplication, with attendant increases in process costs and extended delays for proponents. Moreover it increases demands on Victorian agencies and causes confusion within the community about responsibility and accountability for outcomes.

Victoria believes that there needs to be an appropriate bilateral agreement (under the EPBC Act) recognising the role of Victorian legislation and processes in achieving Commonwealth objectives in this area. Accreditation of both medium and high-level Victorian processes would capture a high proportion of proposals controlled under the EPBC Act and lead to more cost-effective outcomes.

5.0 Further reading

Biodiversity and native vegetation in Victoria

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