



**Institute of Foresters
of Australia**

**SUBMISSION TO INDEPENDENT
BIODIVERSITY LEGISLATION REVIEW
PANEL ISSUES PAPER
SEPTEMBER 2014**



**SUBMISSION BY THE INSTITUTE OF FORESTERS OF AUSTRALIA (IFA)
NEW SOUTH WALES DIVISION**

SEPTEMBER 2014

The Institute of Foresters of Australia (IFA) welcomes the opportunity to provide a submission to the Independent Biodiversity Legislation Review Panel Issues paper dated August 2014.

The IFA is the peak professional body for forest scientists, forest educators and forested land managers in Australia. We are a non-profit organisation with 1200 members who are committed to the principles of sustainable forest management and the processes and practices which translate these principles into outcomes.

The IFA has a long history of involvement and interest in the science and sustainable management of the public and private native and plantation forests in NSW. Our submission includes contributions from IFA members who are senior foresters from the public and private sectors who are working or have worked in these forests for many years, both in management and scientific research capacities on reserved lands and production forests.

The IFA particularly acknowledges the major contribution made to this submission by Ross Peacock and Paul Massey-Reed.

The Institute would be pleased to make a member available to discuss the submission, provide supplementary advice or meet with your technical review panel.

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Cover image: An example of good forest management; a forest stand subject to nine cutting cycles, south coast NSW and now in a National Park. Photograph Paul Massey-Reed.

CONTENTS

Executive Summary	4
Introduction.....	5
History of Vegetation/biodiversity legislation in nsw.....	5
Charter of the Forest	5
NSW Legislation	6
Policy settings	9
legislation - sticks.....	9
Current legislation positives	10
Current legislation negatives	10
Incentives - carrots	10
Education and training - Sermons	11
Auditing and regulation administration	11
Basis for government intervention.....	12
Dealing with Uncertainty – Adaptive Management	13
Some Other Issues of interest to the panel.....	13

EXECUTIVE SUMMARY

The Institute of Foresters of Australia strongly supports the review of biodiversity legislation and the need to move from process driven legislation to outcomes based legislation.

A summary of the key issues raised follows:

- i. The Institute of Foresters of Australia; as the peak professional body for forest scientists, forest educators and forested land managers in Australia wishes to contribute to the management of vegetation in NSW and its associated fauna;
- ii. The current legislative framework has too many layers and players leading to confusion for landowners, land managers and regulators, thus leading to persons unknowingly breaching legislation and/or stifling good management innovation;
- iii. Across all land tenure (freehold, and all crown land) regulation is required for activities where the results that cannot be contained within the property boundaries;
- iv. Where activities or their results can be contained within freehold land and society wants these activities restricted then, society needs to provide support to the freehold landowner. This is a principle of natural justice. Those who benefit from the use of an asset need to contribute to the cost of the benefit;
- v. The State cannot impose on freehold land, legislation and regulations that are more restrictive than those that apply to crown land;
- vi. The legislation needs to cater for adaptive management as this allows flexibility to address uncertainty and macro environmental changes;
- vii. When publishing the rationale for the listing of endangered species, communities, etc. need NSW Scientific Committee is urged to adopt a similar system used in Federal legislation. The Federal listing process is far more helpful for land managers aiming to identify and manage those species/communities.

INTRODUCTION

The IFA submission deals with the non-marine environment as we do not have specialist knowledge of marine ecosystems. Vegetation, soil conservation and water quality issues are essential for the sustainability of biodiversity.

The IFA in this submission tries to set out the philosophical and overarching principles for vegetation and biodiversity management in NSW. To that point we would like the panel to consider the following statement by Professor Jerry Franklin¹;

“In my view human society will need to be continuously engaged in active management of many native temperate forests even when they are no longer used as a source of wood products. I believe that the proffered “solution” – fiber farms and preserves – will often lead to undesirable outcomes for native forest function, biodiversity, and health and, consequently, the failure of those forests to fulfill the expectations and needs of human society.”

The vegetated landscape needs to have functioning vegetation communities that provide the ecosystem services a full range of habitats for the fauna to occupy. If the vegetation community is not functioning to provide those services then it cannot supply the full range of niches for the suite of native fauna species in NSW. Attention in the first instance must be given to the longest lived dominant structural vegetation and in the forest - the tree stratum. To that end poor silvicultural practices will inevitably lead to poor environmental outcomes. Good silvicultural practices can produce a range of outcomes desired by the community (e.g. wood fiber, clean water, increased carbon capture and biodiversity and the legislation needs to guide and encourage good silvicultural practices.

HISTORY OF VEGETATION/BIODIVERSITY LEGISLATION IN NSW

In our discussions with the review panel, a request was made that the Institute included a short history on biodiversity legislation in NSW, in particular affecting freehold lands.

CHARTER OF THE FOREST

At the time of settlement, NSW was subject to the laws of Great Britain and the Charter of the Forest, signed by King Henry III, was the basis for these laws concern vegetation and biodiversity.

The Charter of the Forest (*Carta de Foresta*) re-established rights of access to the royal forest for free men that had been eroded by William the Conqueror and his heirs.

It was first issued in 1217 http://en.wikipedia.org/wiki/Charter_of_the_forest_-_cite_note-2#cite_note-2 as a complementary charter to the *Magna Carta* from which it had evolved. It was re-issued in 1225 with a number of minor changes to wording, and then was joined with *Magna Carta* in the Confirmation of Charters in 1297.

¹ Franklin J.F. (2003) “Challenges to temperate forest stewardship – focusing on the future” Towards Forest Sustainability ed DB Lindenmayer and JF Franklin (2003), p1 – 14.

In contrast to *Magna Carta*, which dealt with the rights of barons, it provided some real rights, privileges and protections for the common man against the abuses of the encroaching aristocracy. This charter was almost unique in providing a degree of economic protection for free men, who also used the forest to forage for food and to graze their animals.

The Charter specifically states that

"Henceforth every freeman, in his wood or on his land that he has in the forest, may with impunity make a mill, fish-preserve, pond, marl-pit, ditch, or arable in cultivated land outside coverts, **provided that no injury is thereby given to any neighbour.**"²

By Tudor times, most of the laws served mainly to protect the timber in royal forests. However, In Great Britain some clauses remained in force until the 1971. In this respect, the Charter was the statute that remained longest in force in England (from 1217 to 1971), being finally superseded by the Wild Creatures and Forest Laws Act 1971. At the time of settlement of NSW the Charter of the Forest provided the basis for laws governing vegetation.

NSW LEGISLATION

It is estimated that there was 45 million hectares of forest in NSW in 1788. By 1981 this had been reduced to 16 million hectares. Initially regulations on timber cutting were aimed to ensure sufficient timber was left for Government purposes. The impact on NSW ecosystems since 1788 has been due clearing, changed fire regimes and the introduction of non-native flora and fauna. Some ecosystems have actually increased in area extent e.g. River Red Gums are now 104% of their JANIS (pre 1788) extent due to the below Redbank irrigation scheme.

Settlement of coastal NSW followed the cedar cutters and by the late 1800s most of the easily accessible cedar, in the coastal valleys, had been cut. However the effects of earlier settlers were far more devastating on the forest of NSW, in particular rainforest where large tracks were felled and burnt. In the Bellingen Valley alone Forestry Commissioner Swain estimated that 500 million super feet of high valuable timber was lost.

Some areas originally cleared have re-vegetated as the farming was found to be unviable. Examples of this are the Richmond valley south of Casino, Mount Rae west of Goulburn, more swampy sections of the coastal floodplains (most are now Endangered Ecological Communities), various Cypress Pine areas and Jingellic Valley east of Holbrook.

State Forests and Timber Reserves were first gazetted, under the Lands Act, in the 19th Century and were administered by the Lands Department. State Forests were originally gazetted to protect the forest from clearing by the expanding settlement. The forests chosen were not necessarily the areas of best timber. In most cases on the non-basalt soils, heavy timbered areas were not cleared. As the population increased, highly fertile and easily cleared areas became in short supply and even the heavily timbered areas came under clearing pressure. The last area settled in NSW (in the 1920s) was the eastern Dorrigo Plateau which was famed for its big Tallowwood forests.

The conversion of leasehold lands to freehold required approval from the Forestry Commission. In some cases approval was not given and these lands were converted to State Forests with the leaseholder rights remaining in place. If the conversion was granted, often the Crown retained the timber rights (*profit à pendré*) for a period of 10 years.

² Emphasis placed by the authors of this paper. This fundamental principal has been part of our law since 1217.

Post Second World War, the NSW Government directed the Forestry Commission to over cut the forest in order to establish a timber industry to supply work and timber for the great demand for housing generated during the depression and war years. This was coupled with an expansion of the plantation estate in the 1960s, again driven by the concept of self-sufficiency. After one major depression and two world wars, self-sufficiency was a major theme for many industries in Australia.

The coastal and tablelands forests were divided into three working circles with corresponding silvicultural prescriptions. The high yielding coastal and plateau forests were maintained on a sustainable yield basis. Some sections of the non-rural community believed these forests to be unlogged but anything could be further from the truth.

The foothills working circle was cut above sustained yield. The concept was to log these to maximum yield, regenerate them and then to leave until ready for harvesting some 40 years in the future. The Tablelands Working Circle was logged on sustained yield and its cutting cycle was longer than the Coastal Working Circle.

The Cypress Pine forests were managed on sustainable yield basis. The big issue was to obtain regeneration due to browsing pressure and fire, and once regeneration was established then there was a need to thinning.

River Red Gum forests were managed under different concepts. On many occasions it was predicted that these forests would stop growing and were cut beyond sustained yield. All these predictions have been proven to be wrong. The local foresters became very efficient in utilizing limited available water.

On freehold lands logging occurred as a result of clearing and where there were markets, significant quantities of timber were burnt for fuel. Fortunately a significant amount of freehold timber lands was retained. By the 1960s only minor areas of freehold lands had not been logged. The areas not logged were either too steep or did not contain commercial species of the timber of a very poor quality.

After the Second World War the emergence of concepts of multiple use matured in both a policy and operational sense around the time of the Forwood Conference in April 1974. This was also the time when Australian forestry was going through the early throws of responding to the challenge of change generated by industry conditions on one hand and a gathering environmental movement on the other.

The first restriction on the logging or clearing of native vegetation on freehold was the Rivers and Foreshore Improvement Act 1948 where a permit was required to disturb native vegetation within 20 meters of a tidal stream. This was about preserving bank stability.

The next piece of legislation was an amendment to the Soil Conservation Act in 1972, where consent was required to remove vegetation on State Protected Land (did not apply to State Forest or National Parks). State Protected Land fell into three categories, and these were;

- a) Land mapped that were generally over 18 degrees of slope (mapping was done from aerial photography with no field checking);
- b) Land within 20 meters of a prescribed stream (these streams were named and included all non-tidal reaches of the stream up into the catchment to where it was first named on the Parish Map); and
- c) Land, mapped that was subject to mass movement (mapping was done from aerial photography with little field checking).

This regulation was about the protection of soil and water quality as activities could have serious downstream impacts.

The National Parks and Wildlife Act 1974 introduced the concept of endangered fauna and protected flora. Licences were required to pick specific flora and the land manager had to take into account endangered fauna in their activity. These provisions did not have real impact until after the Chaelundi Land and Environment Court case in 1991.

The Environmental Planning and Assessment Act 1979 (EPA Act) originally had minimal impact in biodiversity regulation. It was predominately aimed at urban and urban expansion areas and virtually no effect on rural zones. Over time this situation changed as Local Council produced and revised their Local Environmental Plans. Some Councils introduced tree protection measures and environmental zones. Approvals under the Soil Conservation Act, SEPP46, Vegetation Conservation Act 1997 and Native Vegetation Act 2005 were consents under the EPA Act.

State Environmental Policy (SEPP) 14 – Coastal Wetlands was introduced in 1985 and consent was required to disturbed mapped coastal wetlands. State Environmental Policy (SEPP) 26 – Littoral Rainforests was introduced in 1988 and consent was required to disturbed mapped littoral rainforests and its 100 meter buffer. Consent granted under SEPP 14 was considered consent under SEPP26. The mapping for both SEPPs was from aerial photographs with little field checking and only occasional compliance activity.

The National Forest Policy was agreed to 1992 and one of its outcomes was the commitment by NSW for the development of a Code of Practice for logging on freehold land.

In August 1995, State Environmental Policy (SEPP) 46 - Protection and Management of Native Vegetation was introduced. Clearing on freehold land now required consent. Logging operations were not affected, consent was still required on State Protected Lands and no consent was required non state protected lands.

In 1995 the Threatened Species Conservation Act 1995 introduced the 8 part test for consents under the EPA Act, SEPP14, 26 and 46. 1995 also saw the introduction of State Environmental Policy (SEPP) 44 – Koala Habitat Protection for activities requiring consent. Note it did not apply to the majority of lands zoned Rural for forestry and land clearing.

In 1997 the Native Vegetation Conservation Act 1997 (NVC) replaced SEPP 46 and the approvals process was regulated.

In 2005 the Native Vegetation Act replaced the NVC Act. Vegetation removal required a Property Vegetation Plan or consent. The provision for forestry activity was still subject to the SEPP46 processes. In July 2007 the Native Vegetation Regulation was amended to include private native forestry Code of Practice, some 15 years after the signing of the National Forest Policy.

Prior to July 2007 approximately 600 approvals to log State Protected Land had been granted. One threatened species licence and 10 permits under the Threatened Species Conservation Act had been issued³. Since 2007, over 3,000 Private Native Forestry PVPs have been approved. There are potential 10,000 properties that could be issued with a Private Native Forestry PVP⁴.

³ 2005/2006 Department of Natural Resources Reports to the Private Native Forestry advisory group.

⁴ Various reports from the Private Native Forestry Section of DECC, DECCW, OEH and EPA.

POLICY SETTINGS

Effective policy delivery needs to be comprised of three key areas⁵ and these are;

1. Legislation, regulation and enforcement – The sticks
2. Incentives – Carrots; and
3. Education and training – Sermons

Parts of the current legislation and delivery mechanisms achieve parts of the three key areas. Historically due to budget pressure Governments worldwide opt for the first and sometimes get involved in the third. This creates a series of winners and losers. Those who do not have own or use the assets (and vegetation is an asset) end up paying and those who do not end up getting the benefit.

A classic example is the 1984 Rainforest decision that saw the cessation of rainforest logging on Crown land in NSW. Analysis on the impact in the Kyogle area 10 years after the event showed that the 90% of the cost was borne by the local community for only 10% of the benefit. It took the community over 15 years to recover back to the same level of economic activity.

Rarely do Governments cover all three areas effectively thus not bringing the community along. This in turn leads to landowners unwilling to inform government of sightings of flora and fauna (also heritage items). Having something rare or endangered is seen as a burden not an asset. The community of NSW through Government legislation, where needed, values these items thus should be willing to contribute to their management. If it does then it does not value them thus the regulation is not needed.

LEGISLATION - STICKS

If regulation is measured by changing culture or outcomes then the Threatened Species Conservation Act 1995 has failed as more species are added each year, yet more areas have been converted to National Parks or have Conservation Agreements over them.

Possible reasons for failure could include;

- The listing criteria is too general and some species/communities listing should not have occurred (e.g. northern meta population of Slaty Red Gum);
- Lack of review process to see if circumstances have changed and species should be de listed. Swamp Sclerophyll Forest on coastal flood plain – (mainly paperbark forests), when listed was estimated to occur across 17,000 ha from the original estimate extent of 130,000 ha. Some 10 years after listing the Federal Government found some 41,000 ha of paperbark forests in NSW.
- The Act rewards listing not delisting, funding for Government agencies and prestige of the Scientific Committee increases as the number of listings increase. The Act needs triggers to reward delisting.
- The Act objectives and leavers are poorly set.
- Or a combination of the above

⁵ Bemelmans-Videc, ML, Rist, R C. and Vedung, E., (1998) Carrots, sticks & sermons: policy instruments and their evaluation. New Brunswick, N.J., U.S.A. Transaction Publishers, 280 pp.

CURRENT LEGISLATION POSITIVES

The education and training package introduced with the Private Native Forestry Code of Practice as part of the Native Vegetation Act 2005 worked very well, however, it is now discontinued. The recent number of breaches of the regulation reflects this.

A Property Vegetation Plan approved under the Native Vegetation Act was for a period of up to 15 years where future changes to various acts and regulations did not affect the PVP.

Bio- banking for urban expansion and mining activities. However, it is not an effective tool for rural settings as the economic activity is not intense enough to warrant the costs.

CURRENT LEGISLATION NEGATIVES

Length of approval of the PVP for forestry operations was too short. Forestry is a long-term activity. Approvals need to cover more than 1 cutting cycle. Approvals of lesser period encourage poor silvicultural outcomes where logging outcomes become maximizing current return as future income is not reliable.

The consent process of the Native Vegetation Act is not working as it currently defaults back to the PVP process.

In most cases approvals are not required for removing vegetation that has grown since 1990. In parts of the north coast of NSW these trees can be excess of 50 cm diameter at breast height. Ensuring compliance in these high growth areas will become problematic overtime.

Private Native Forestry PVP relies on mapped rainforest and old growth. These maps were derived from aerial photography with only 39 field checks. These maps are highly unreliable, in particular the old growth maps. Prior to 2006, the former Department of Environment and Conservation field checked 4 properties and found only 17% accuracy in the old growth mapping.

Reasons for listing of a species, population or ecological community are not very helpful in identifying communities and understanding of the reasons for listing, thus post listing management can be very difficult. The Federal system is far superior.

Soil and water conditions are not applied equally across all land tenure. Conditions for road construction and maintenance attached to forestry operations and major road construction are not applied to non-forestry activities. There are many examples in National Parks and on council road networks where active erosion is occurring and would be a breach.

INCENTIVES - CARROTS

It is best described as a pretty bare cupboard.

When the Native Vegetation Act 2005 was introduced monies were set aside to purchase properties by the Nature Conservation Trust but the project was given a short period to operate then monies from the resale went into the general Nature Conservation Trust fund. The period was too short a period and by the time the Private Native Forestry regulations were enacted it was over prescribed thus affected landowners missed out.

If society wants to reduce or restrict the earning capacity of landowners then society needs to contribute. It is a matter of natural justice. What now happens, the landowner has no incentive to undertake active management to maintain or improve biodiversity outcomes. Thus the objectives of

the Native Vegetation Act 2005 will not be met. The Southern Cross Group⁶, led by Professor Jerry Vanclay, in 2006, set out some valid ideas for stewardship payments. These concepts provide a blueprint for stewardship payment for biodiversity and native vegetation.

One of the carrots is Conservation agreements; unfortunately it is reactive to those wanting to sell rather than targeted areas. Another drawback is the binding nature of the agreements. Government are allowed to change their minds on land tenure why not private owners?

EDUCATION AND TRAINING - SERMONS

A recent Productivity Commission report⁷ found;

“The PC also found that 85 per cent regulators surveyed did not monitor the costs their regulation imposed on business. It called on agencies to adopt a more educational, supportive approach that sought to help firms meet their compliance and not simply punish them for failure.”

Graeme Wilkinson, Chief of the Tasmanian Forestry Practices Authority, found that 60 to 80% breaches of natural resource management legislation worldwide was due to lack of knowledge or lack of training⁸. Thus the Private Native Forestry \$4 million training and education package was devised. Unfortunately the program is now finished but it needs to be continued, at a reduced rate, to cater for new entrants. It is not up to the Government to act alone but in partnership with Industry, Landowners and the general public.

This program should be extended to cover other issues in biodiversity legislation.

AUDITING AND REGULATION ADMINISTRATION

The auditing system needs to be able also address the following issues;

- Transparency for the community to see they are getting value for money in terms of service delivery;
- Auditing/checking to see if terms of approvals and PVPs and their deliverables are been meet; and
- An objective audit to see if the biological programs have been effective in terms objectives of the Legislation.

At present multi agencies are involved in the administering of biodiversity and vegetation regulation. This has led to public servants providing poor advice to landowners who have unknowingly breached the legislation, or landowners “expert shopping” to utilize the inconsistencies to breach.

Native Vegetation regulations are a classic example there are at least 7 Government agencies involved;

- Office of Environment and Heritage (regulator, policy and land manager),

⁶ Vanclay, J., Thompson, D., Sayer, J., McNeely, J., Kaimowitz, D., Gibbs, A., Crompton, H., Cameron, D., and Bevege, I. “A proposal for Stewardship support to Private Native Forestry in NSW” Lismore City Printery

⁷ Productivity Commission report on regulator engagement with small business

⁸ Wilkinson G (2008), Key Note address, Old Growth, New Management Conference, Hobart Australia.

- Department of Primary Industries (advisory and policy),
- Environment Protection Authority (regulator and advisory for forestry activities),
- Forestry Corporation (land manager and regulator),
- Natural Resources Commission (policy),
- Department of Trade and Investment (land manager and regulator), and
- Local Land Service (advisory and regulator).

Throw in Local Government (with multiple variations) and various Federal Agencies no wonder there is confusion. There is a need to reduce red and green tape and duplication. It could be as simple as Local Government is responsible in urban, recreational, business and industrial zoned areas and the State responsible in all other areas.

For the State Government land management agencies should not be involved in regulation. A Natural Resources agency needs to be reformed and responsible for policy and regulation of biodiversity, vegetation and other natural resources. Vegetation regulation in the Environment Protection Authority could be described as the “odd man out” in its brief. The other areas of its brief are “end of pipe” industries and activities.

BASIS FOR GOVERNMENT INTERVENTION

The IFA has no problem with the regulation of activities that affects neighbours. This has been established in our legal system since the Charter of the Forests in 1217, where it states;

“provided that no injury is thereby given to any neighbour”

Thus issues of bio-security, soil erosion and water quality need to be regulated.

The question then becomes who owns the vegetation and its biodiversity and why we need to regulate vegetation and biodiversity?

Under our land title system the vegetation (flora) is owned by landowner. The situation for fauna is not as clear cut. Some fauna are very sedentary and its whole life cycle can be carried out within one property. However, most fauna move between properties either on a local, regional or international scale.

If the fauna species becomes a pest then it is up to the landowner to take action (that is society considers they own the fauna). For certain pest species the State provides assistance (wild dogs, feral pigs) and hindrance (flying fox colonies) to the landowner.

Society places a value on flora and fauna but currently expects the landowners to pay for its protection. For flora the burden falls on the owner but for fauna the burden falls upon where the animal is domicile at any given point in time.

A very strong argument can be made for society to contribute the cost of management of fauna species in terms of stewardship payments in particular if it reduces the income from the land. If not then society does not value fauna species, that is contribute to the cost/income replacement, then fauna protection should not be regulated.

In a forest context there are a number of critical habitat niches for the range of species. The most critical is tree hollows. Queensland Private Native Forestry rule set is simpler than those imposed in NSW. Queensland protects two basic features – tree hollows and creek banks and adjacent vegetation.

DEALING WITH UNCERTAINTY – ADAPTIVE MANAGEMENT

The last two decades have seen rapid changes in forest management, harvesting and planning technologies. The associated level of environmental risk has also changed. To accommodate this change, forest managers had to employ adaptive management principles. However the basic fundamentals of silviculture have not changed. The same is true for other rural management systems be it agriculture, horticulture, etc.

Adaptive management is a tool to achieve an outcome thus should be incorporated into the regulatory framework. The IFA strongly advocates for adaptive management approach.

SOME OTHER ISSUES OF INTEREST TO THE PANEL

Could the objects of the current laws be simplified and integrated? If so, how?

The introductory context statement recognizes the shortcomings of the current approach to managing biodiversity in NSW by the State government yet it ignores the role of complementary work by the local and Australian governments, industry, the NGO sector and private individuals. The listed objects should include the important role of the Local Government Act 1993 requiring Council's to take biodiversity into account in their plans of management, similarly there is no mention of the Fisheries Management Act 1994 and its requirement for fish habitat and conservation management planning.

Some contextual information on the genesis of the current system of legislation in NSW would be useful, for example the rationale for the creation of the three components (Department's, CMA's and NRC) by Minister Knowles.

Aspirational goals are readily available for biodiversity conservation from the draft NSW Biodiversity Strategy however the objects should include only those that are achievable. The basic test to meet is to maintain biodiversity. The aspirational test is to improve. These tests need to be incorporated across tenure.

Is the current system effective in encouraging landowners to generate public benefits from their land and rewarding them as environmental stewards? Or are current mechanisms too focused on requiring private landowners to protect ecosystem services and biodiversity at their own cost?

The current system is ineffective, see comments above.

How effective are current arrangements for delivering strategic outcomes for biodiversity and enhancing ecosystem services? How can they be improved?

The current arrangements are ineffective as the threatened species list continues to grow. Efforts are needed to identify species that can benefit by cost effective management efforts. An example is the olive whistler, ground parrots and eastern bristle birds where changes to the fire regimes have encouraged thicker understoreys of tall heaths leading to negative impacts.

How should the effectiveness of strategic planning approaches be monitored and evaluated?

The outcomes need to be clearly identified and measurable using simple means.

Can we have a single, integrated approach to the approval of all forms of development, including agricultural development, that is proportionate to the risks involved? If yes, should one

methodology (or a harmonized methodology) be used to assess all impacts? Does a need remain for some differences in assessment approaches?

Yes. The methodology also needs to be proportionate. It should be outcomes focused rather than descriptive. If the land use is on-going (e.g. forestry) then less work is required. A change of land use requires more comprehensive approach.

Does the regulatory system adequately protect listed threatened species, populations and ecological communities? Is there utility in specifically protecting these entities through the regulatory system?

The question also needs to address duplicated efforts between the Native Vegetation Act and Regulation and the Scientific listing process for terrestrial vegetated ecological communities.

To what extent has the current regulatory system resulted in lost development opportunities and/or prevented innovative land management practices?

See comments on adaptive management.

Are there areas currently regulated that would be better left to self-regulatory codes of practice or accreditation schemes?

Codes of Practices can set out the outcomes and methods to achieve those outcomes. Accreditation schemes have high cost of entry and high cost of maintenance beyond the reach of the majority of landowners. When the Private Native Forestry Section was in the Office of Environment and Heritage, it investigated the costs and difficulties of landowners becoming accredited under the two forestry accreditation schemes. AFS is the Australian Standard and the FSC is a guideline. The AFS scheme was more landowner friendly in terms of costs and difficulty of accreditation but the cost was greater than the timber royalties generated from average logging operation.

Have the threats to biodiversity posed by: (a) people taking animals and plants from the wild, (b) feral animals and weeds, and (c) illegally imported species, been effectively managed?

No, the State should only impose regulation that itself is willing to and does carry out on Crown Land.

What information should be generated about the different kinds of value (for example, monetary and intrinsic value) of biodiversity and other natural assets in NSW?

Unless society is willing to pay then it has only the value that the landowner can generate for it.

What type, quality and frequency of data should be collected about biodiversity? Who should be responsible for such a system?

NSW lacks a Biodiversity Data Plan to under-pin its own legislative objects. Such a plan would articulate the role of the community, industry, researchers and consultants in providing quality data, accessing that data and importantly putting a value on that data. Anecdotal evidence suggests much of the quality biodiversity data currently collected by consultants is not being provided to OEH via its information portals because of the prohibitive cost of data entry (ultimately borne by the client) and lack of incentives to do so.

Currently the system relies on mapped and point source data layers that have been generated by remote sensing or various levels of survey. Greater level of ground truthing is required for the mapping to have any reliability. The information should be challengeable. If the information is found to be wrong then the State should have to pay for challenge. If correct then those challenging should pay.

Is current data about biodiversity highly credible and readily accessible? If not, how can quality and access be improved?

The provision of accurate, timely and systematic biodiversity data is critical for effective biodiversity management in NSW. It is the role of government to collect, validate and serve this data to support its own planning, implementation and monitoring programs, the wider non-government and industry sector and members of the public and researchers. Recent developments in NSW and nationally have significantly improved the provision of biodiversity data through on-line portals, however in NSW we are still behind the best practice models established in other jurisdiction's (e.g. Victoria).

How effective is the threatened species listing process (including the listing of key threatening processes) in guiding subsequent conservation action?

The NSW Scientific Committee has provided a very effective model for the identification and listing of species, communities and populations etc. and its independence is one of its strengths. The perceived weakness of the Committee, perhaps unfairly, was in the lack of outcomes it promoted for on-ground conservation management and the difficulties with interpretation, most commonly with ecological community determinations. Recent criticisms of the process concern the lengthy period for determination, the apparent reluctance to provide criteria for de-listing and the expectation that community groups have access to professional ecological researchers to document listing proposals when in the past OEH staff would undertake this research as part of their routine Committee support functions.

When publishing the reasoning for the listing of endangered species, communities, etc. NSW needs to use a similar system used in Federal legislation. The Federal reasoning for listing is far more helpful for land managers to protect those species/communities

Should threatened species listing decisions be decoupled from decisions on conservation actions (including recovery planning) and regulatory processes?

To what extent, if any, does having national and state lists of threatened species cause confusion, regulatory burden or duplication of conservation effort? How could national and state lists be rationalized?

Greatly adds to the confusion. The listing criteria should be consistent and in this case NSW should follow the Federal lead as landowners can have properties in multiple jurisdictions.

To what extent is the identification of critical habitat an effective tool for biodiversity conservation? Should we list critical habitat for more species where relevant and useful?

Why? All this achieves is another layer. The Native Vegetation Act for terrestrial species already achieves this.

Should private conservation data be collected and if so how?

Why?