



EERHPOLICYBRIEF

“Yes we can...” : Including the environment in public policy making
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An important precedent has been set for incorporating the full range of environmental impacts into public policy making.

Economists and public policy analysts have long recognised the power of cost-benefit analysis (CBA) as a tool to inform sound government decision making. However in the past, when it came to policy choices that involved environmental impacts, there have been concerns that not all the relevant costs and benefits could be incorporated in a CBA. In particular, impacts on environmental assets such as biodiversity were often left out.

Three key decisions taken over the past year have demonstrated the viability of an innovative approach to incorporating the full range of environmental impacts into public policy making. First, the Victorian Government embarked on a series of changes to the management of river red gum forests on public land along the River Murray. Second, the Environment Protection and Heritage Council supported the development of a national electronic waste product stewardship system. Most recently, the New South Wales Minister for Planning announced the approval of the Metropolitan Coal Project.

Cost benefit Analysis was used as the base for each of these public policy decisions. Specific recognition was given to a full range of environmental impacts. This was achieved through the use of Choice Modelling to value the environmental costs and benefits of the public policy options in monetary terms. Choice Modelling thus enabled the environmental impacts of the public policy options to be assessed against their economic impacts.

Each decision involved the integration of markedly different environmental and economic impacts.

In the River Red Gum case, forgone agricultural and timber profits had to be weighed against greater species protection and recreational benefits.

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The costs of collecting and processing electronic waste, such as old computers and televisions, had to be compared with the benefits people enjoy from knowing that their used electronic equipment isn't simply sent to land-fill.

And in the case of the Metropolitan mine, the balance to be struck was between the wealth created by coal mining and the environmental harm caused to areas of Sydney's water catchment area through subsidence.

To allow environmental impacts to be integrated in the decision making process in a systematic and rigorous manner they must be valued in monetary terms. The monetary values of economic impacts can be readily drawn from market information. For instance, the profits from mining coal or harvesting timber and the costs associated with operating a fleet of trucks to pick up used computers can be easily observed. Many environmental impacts are more difficult to value. This is particularly the case for non-marketed environmental impacts such as those affecting biodiversity. It is here that Choice Modelling is proving to be useful in assisting decision making.

Choice Modelling

Choice Modelling (CM) involves a sample of people who are likely to be affected by a public policy decision being asked to make a sequence of choices about their preferred policy outcomes.

- In the Metropolitan Mine case, survey respondents in NSW were asked to choose between alternative mine management futures described in terms of their environmental impacts.
- For the electronic waste CM survey, recycling scheme options were described, in terms of the percentage of resource recovery and the collection method involved, to samples of residents in Sydney, Brisbane, Adelaide and Perth.
- Alternative River Red Gum Management options were set out in terms of their impacts on species protection and recreation facilities for survey respondents across Victoria.

In each case, respondents were asked to consider the options in the light of the cost they would have to bear if their chosen option was implemented. Those who were included in the Metropolitan Mine survey were offered environmental improvement options but at a cost of increased rates and taxes. Electronic waste survey respondents could choose recycling schemes but would then face increased taxes and charges. CM thus involves people facing choices about the future that require them to consider and decide between environmental gain and financial cost.

A CM survey presents a sequence of different choices to respondents. The choices involve a range of different environmental outcomes at different costs. From the choices people make, an estimate of the extent of their willingness to pay additional costs to achieve some environmental improvement can be quantified.



It is this “willingness to pay” that can be directly included in the CBA of a policy initiative. It is the value of the environmental impact expressed in monetary terms.

Contribution to public policy making

Cost Benefit Analysis is often seen as an ‘economic’ tool that ignores environmental impacts. This is more a result of confusion between ‘economic’ considerations and narrower ‘commercial’ interests. Cost Benefit Analysis requires that any effect on the environment that has an impact on peoples’ well-being be taken into account as part of the ‘economic’ calculus. Until the development in recent years of techniques such as CM, however, the difficulty of credible valuation of environmental impacts has imposed a serious constraint on their inclusion.

The incorporation of the full range of environmental impacts in policy CBAs means that the decision-making process can be carried out in a more objective and transparent way. With objectively estimated values for the environmental cost and benefits included, vested interest groups have less scope to manipulate the decision process in their favour. With CM estimates included, the environment is no longer ignored in decision making – as it frequently was in the past when CBAs only recognised benefits and costs that could be observed from market transactions.

In the past there have been a range of environmental issues where decision makers have been confronted with two sets of arguments. For some the environment must be given absolute priority in policy determination. For others the development of resources for jobs and profits should be the priority. The integration of outcomes that is fundamental to the CM approach enables the environment to be incorporated into a more wide-ranging analysis of the issues at stake.

The River Red Gum, electronic waste and Metropolitan Mine cases represent a significant shift in approach to public policy making where environmental impacts are involved. Prior to these studies, policy makers could be excused for being confused as to how to incorporate the environment into public policy deliberations. Despite policy pronouncements calling for ‘sustainability’, little if any government guidance has been available on how to reconcile economic and environmental considerations.

Increasingly the policy focus of government is on environmental issues. CM enables the a more complete range of environmental impacts to be incorporated into standard Cost Benefit Analysis as part of the public policy making process.

The opportunity now exists for governments to take decisions on environmentally sensitive issues based on a rigorous and comprehensive analysis of all the relevant benefits and costs to society.



References

The River Red Gum Case:

<http://www.veac.vic.gov.au/eefea.htm>

The Electronic Waste Case:

http://www.ephc.gov.au/sites/default/files/PS_TV_Comp__Willingness_To_Pay_For_EWaste_Recycling_Final_Report_Choice_Modelling_study_200907.pdf

The Metropolitan Mine Case:

<http://majorprojects.planning.nsw.gov.au/files/35005/Reponses%20to%20PAC%20Submissions.pdf>

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The Environmental Economics Research Hub brings together leading economic and social scientists to look at new and improved ways of valuing environmental assets and determining the benefits and costs of different actions. This work extends across terrestrial and marine biospheres. The overarching focus of the research hub is to develop economic models and tools, especially for policy makers. It employs leading edge economic principles and practices to address key environmental policy issues such as the design of marine reserves, development of incentives and tools for improving water efficiency, policies for promoting environmental stewardship, multi-species and ecosystem management for biodiversity, and adapting to climate change.

For further information, see

http://www.crawford.anu.edu.au/research_units/eerh/index.php

<http://www.environment.gov.au/about/programs/cerf/>



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