

PSB611

The Success of Sustainable Resource Management and Knowledge Resources

For

PSB611 Introduction To Urban and Regional Economics

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1 Document Layout

Statements One and Two are broken down to two questions each. The responses demonstrate the approach of insight and thought taken into considering their context. The conclusion demonstrates the linkages between the questions.

2 Statement One

The success of sustainable resource management and development policies will depend significantly on the design of appropriate rules that can provide:

- ❖ Incentives to promote the wise use and development of resources and their relationship with land in a manner that is consistent with the requirements of sustainable development

- ❖ Disincentives to dissuade activity that poses socially unacceptable risks or detracts from the requirements of sustainable development

The actions that people take depend on the information they bring to bear on the decision making that leads to their actions.

3 Statement Two

Accordingly, promoting the production of knowledge needed to manage resources and conduct commerce depends on establishing institutional arrangements that provide:

- ❖ Incentives to produce and communicate knowledge and to learn things needed for an individual to function creatively within society

- ❖ Disincentives to dissuade individuals from producing or communicating misinformation and failing to learn things needed to comply with the requirements of society

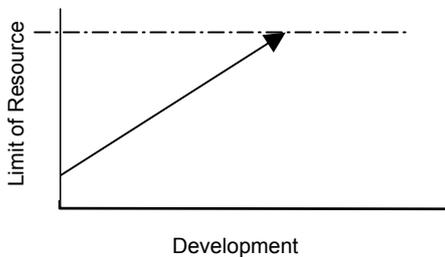
4 Question One

Do the above comments provide a succinct and effective summary of rule making activity that underpins the economic system?

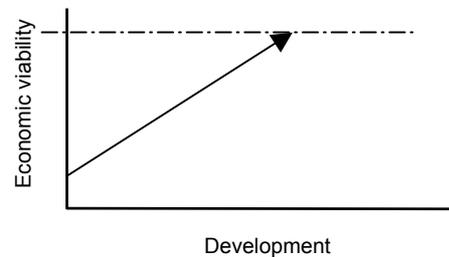
- ❖ Statement One deals with the concept of "sustainable management and policies" and the implementation of rules that provide incentives and disincentives.
- ❖ Statement Two deals with the concept of "establishing institutional arrangements" and the role in the formation of a sound approach to the social cohesion of society.

4.1 Sustainable Management Policies

Sustainable Management Policies (SMP) is a response to a development having a finite resource to utilise. This is in combination with a restricted potential and unlimited capability to exploit. Where as economic based development has an unrestricted potential and limited capability to exploit the resource. Development therefore can be seen to be a need to supply and service a sector that is in need of such a benefit.¹



A limited resource is when the resources cannot be generated further to cater for demand. A loss of sustainability is a very real outcome if the limited resource is not managed correctly. E.g. overfishing of Orange roughy – a deep water ocean fish.



Here a ceiling of economic viability is reached, even if the basic resource is still available. However, if not managed correctly abuse in the environment is an often seen outcome. E.g. disposal of effluent into offshore sea waters.

4.2 Regulation of Sustainable Activity

To maintain an ecological and economic balance there needs to be a set of regulatory controls that enable a sustainable future. In the 17th Century, John Evelyn², a courtier in the reign of Charles II, published his classic textbook *Sylva* in 1664. This was in reaction to the over cutting of trees for the development of buildings, and profit making from the Lords that resided over large tracts of land. Evelyn insisted that there should be a need to reforest large sections of Britain's woodland. In other countries at the time, they had managed their natural forests better³. However, we have seen a tremendous expansion of artificial plantations planned to meet the need for wood. Jane Jacobs the change in perspective provided a revolution for town planning with her work, *The Death and Life of American Cities*⁴ and brought about the origins of the 'new urbanism' concept in 1961. The book focused on the inefficient nature of traditional neighbourhood design, proposing environmentally responsive models. Within Queensland, the implementation of the Environmental "Noise" Policy (ENP) and the Integrated Planning Act 1997 (IPA) shows the impact of environmentalism and sustainability. All these improvements and concepts have shaped the landscape to create an architecture of environmentalism, economics and social responsibility. This is the concept of the triple bottom line.



The revitalisation of South Bank shows changes in attitudes towards what is development

4.3 Statutory planning and the affect on land values

We currently work with the Environmental "Noise" Policy. There are guidelines in which companies need to comply to keep their licensing agreements in order. These agreements enable companies to discharge a variety of pollutants into the environment in a responsible manner through emission targets. For example, noise, dust, vibrations, etc. If a company exceeds their targets, an operation is closed. For one company, there were acoustic issues relating to neighbouring residences. The problems ranged from a 'giddy' feeling in the ribs and rattling of windows. The 'giddy' feeling was from an 8kHz vibration that emanated from the flare. The flare is a stack that is used as an exhaust for burn off for fuel that build up at the refinery. Modifications were done to the flare to hamper the resonance and these in turn have lessened the complaints of vibration and noise emissions. If the design of the acoustic shielding been inadequate, and our modelling were incorrect in finding out the amount of attenuation, the firm would be liable to rectify the problem. If this problem, or similar that our company had to deal with, it would lead to a closure due to the failure of not meeting the licensing conditions. We would not only let the company down, but also the residents: A broader urban company collective, if you like.

Clearly, the purpose of the legislation is to ensure operations are environmentally tolerable. As an upside to the legislation is the creeping-acceptability of industry into urban areas, particularly some residential areas, where a measure of amenity can be achieved, despite divergent land uses. This also has a flow on effect of providing a neutralising effect on the impact of industries on residential land values, in the case where the business or industry offer a no net loss in environmental quality for the neighbourhood. Conversely, a company that meets its obligations under the Environmental Protection Agency profits in two ways. On-selling of a business that meets current practice and good will of the operator who may translate that into a new business venture. The former case would clearly mean that the land value upon which the company has established has a greater "good will" than non-compliant businesses or industries.

5 Question Two

What incentives are there for people to use land? Does the self-interest of people using land harmonise with or complement other land uses?

5.1 Land Incentives & Self-interest and Land

In the case of *Maroochy Shire Council v Bames*⁵, the Council requested the Planning and Environment Court to restrain timber cutting on land under both the Environmental Protection Act and the Integrated Planning Act. The owners, Mr and Mrs Bames had been using the land from time to time to "harvest" the trees that were commercially viable. Under the 1976 town planning scheme, the use of the land for "forestry", being the "planting, growing and "harvesting of trees as a commercial venture" was a permitted one use. The Maroochy Shire Council's 1985 scheme required consent for forestry activities; however, existing lawful uses were protected. Under the Council's Maroochy Plan 2000 (created under the Integrated Planning Act), a development permit requiring impact assessment was necessary. This would be the case of a material change of use of the land. The Maroochy Shire Council put a Vegetation Protection Order on the land. Cutting of the timber had ceased for a period, but recommenced shortly thereafter. The Court was satisfied with the fact that the land was in a dormant stage and until some other more valuable use of the land became feasible, the owners of the land had intended to hold the block as a timber reserve. The land was not continually "harvested" and so did not conform the category of "material change of use". The issue was whether the use had intensified to such an extent that a material change of use had occurred. The only way to determine whether there had been a material change in the intensity or scale of the use was to examine and compare those aspects of the use before the alleged change and comprising the alleged change. In this instance, the harvesting had commenced in 2000. It intended to continue at the same intensity, had been far heavier than any that had occurred previously. On the basis that the Court accepted that the clearing activity was about twice as heavy as on



Harvesting trees has been a use as long as man has need trees as a resource for construction

any earlier occasion, it considered that there had been a material change in the intensity and scale of the use of the land. It constituted a material change of use, which was a development offence in the absence of a development permit. A restraining order was therefore made.

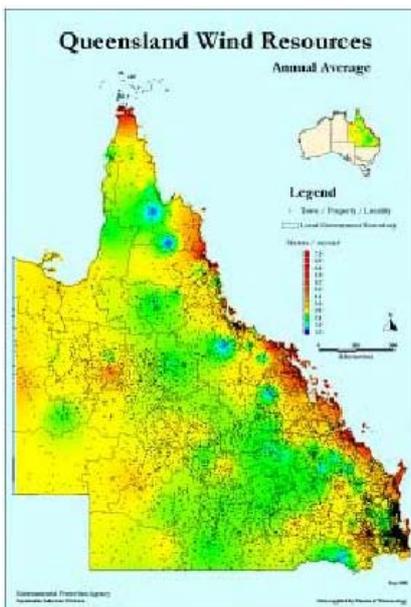
6 Question Three

What instruments of public policy are available to promote positive externalities and mitigate or eliminate negative externalities?

6.1 Public Policy

In the last example of *Maroochy Shire Council v Barnes*, there could be no control over what is considered acceptable land use practises. The argument was that the issue pertained to freedom of an activity, namely the harvesting of trees. There is however, a problem in managing the effects.

6.2 Positive & Negative Externalities



The distribution of high wind areas for Queensland

Currently, the outcomes of the Kyoto Protocol have not begun to be realised in Australia. The current deregulation of Wind Farms has created another source of revenue for farmers. Ken Jack from the Stanwell Corporation, whom operates a Wind Farm at Windy Hill, Atherton Tablelands, Queensland testifies, *“We only take advantage of the natural conditions unlike fossil fuels”*. There are two main uses for a wind generator. One is the classical windmill used on farms to pump water from bores. The other is the emerging use of producing electricity. Hugh Litchfield run a similar project at their Hickory Hill property (Lithgow NSW) of which his wife and himself own. *“All it was a matter of getting the right technology and backing to demonstrate the viability and a matter of getting the right planning approval. The amount*



Wind Farms create economic demand where traditional farm markets are seasonal. Power is required 365 days a year

*of power generated would be enough to power 500 sheering sheds.”*⁶ Recent reporting on Radio National’s “Bush Telegraph”, states that the cattle herds that roam through wind farms, have not been traumatised by the windmills, following an initial curiosity that lasts a few hours. The current technology that has been developed has broken the engineering problems of the past.⁷ Further promotion has lead to the Queensland Government through the Environmental Protection Agency; provide subsidies to users who “privatise” their

electrical use. The reliance of fossil fuels for the past 150 years has led to reliance on a non-renewable resource.⁸

7 Question Four

Are there technical, political or economic constraints that inhibit implementation of public policy as a matter of practice?

7.1 Constraints on the Implementation of Public Policy

Today's consumption is undermining the environmental resource base. There are apparent unequal economic and social levels that each country enjoys. If the trends continue without change - not redistributing from high-income to low-income consumers, not shifting from polluting to cleaner goods and production technologies, not promoting goods that empower poor producers, not shifting priority from consumption for conspicuous display to meeting basic needs-today's problems of consumption and human development will worsen. The real issue is not consumption itself but its patterns and effects.

Globally, the 20% of the world's people in the highest-income countries account for 86% of total private consumption expenditures - the poorest 20% a minuscule 1.3%.⁹ The power of finance, and economic circumstances carry across the need for a decision to be made to enhance the overall wellbeing, not only token aid, but real sustainable supervision of countries.

8 Conclusion

Do we have a moral or even ethical responsibility to develop as a society, only because we have the financial and geographical advantage? Who throws the first moral stone is himself or herself in question based on their age, gender, or their chosen career. As designers, we need to cater for all potentials that are thrown towards our own stature, and our standards. There are planning mechanisms to ensure that the gap in liability is covered. The lack of knowledge of the law is not defence in it self. You need to be aware of circumstances, application of law and its' ramifications.

There are movements such as the environment and political movements. Globalisation on the other hand has been the centralisation of economic and environmental causes, as well as social standards (Human Rights). At what point do we stop in applying international ideals to curb or negate a country or peoples beliefs, ideals and systems. Sustainability moves beyond these, from circumstances to conservation to protection.

9 Reference

¹ Cook John *Lecture Two - Notes*. 2001

² Britannica 2001 Standard Edition. "Evelyn, John." Britannica.com 2000 Accessed 12 September 2001.

³ Britannica 2001 Standard Edition. "Medieval Forestry." Britannica.2000 Accessed 12 September 2001.

⁴ Jacobs, J., *The Death and Life of American Cities*, Pelican, London, 1961.

⁵ Panning & Environment Court *Maroochy Shire Council v. Bames*, Dodds DC 2 May 2001

⁶ Web <http://www.abc.net/Landline> Accessed 6/10/01

⁷ Johnson, Gary L. "Wind energy systems",. *Englewood Cliffs, N.J : Prentice-Hall, c1985*.

⁸ Renewable Energy Fact Sheet – Wind Energy Environmental Protection Agency c2001

⁹ Web <http://www.undp.org/hdro/e98over.htm> accessed 17 September 2001