

The Dilemma of Economics in the Task of Responsible Environmental Planning

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Synopsis

Corporate managers are often implored to take the environment into account in planning their activities. Perhaps this is more easily said than done?

Economics is an important factor in all business planning, and no less so in planning to take account of the environment. Economics encourages planners to think about the cost of their proposals. However, the contribution made by the environment is not fully captured in the parameters of economic models and the market can fail to determine the true cost of goods. This can lead to a misallocation of resources.

Responsible corporate planners attempt to correct market failure by identifying a value for environmental contributions that can be brought into a cost/benefit calculation, or indeed even into a risk/benefit calculation. Therefore, in the field of corporate planning, consideration of the environment encourages planners to broaden their understanding of costs.

The mechanisms for allocation of value to environmental contributions remains problematic. However, we would do well to recall that market forces, the law, and Government regulators are much kinder to management attempts that are not quite perfect than they are to ignorant disregard and negligence.

The Dilemma of Economics in the Task of Responsible Environmental Planning

How important is economics to the task of corporate planning? There are three possible conclusions for an assessment of the influence that economics has on planning. The first, is that economics has no influence on planning; the second, is that it has some influence of a certain discernible nature, and lastly that it *is* the determining factor and is synonymous with planning.

The influence of economics on responsible corporate planning, and specifically on *environmental* planning, cannot be discussed coherently without reflection on the meaning of 'the environment', 'economics' and 'planning'. This involves more than a simple check of the dictionary.

Indeed, the very concept of human 'existence' can posit a certain relationship with our environment.¹ A claim to have complete knowledge of the world would be both arrogant and foolish; therefore, we are encouraged to conclude that any accepted 'fact' concerning our surroundings is an interpretation of that which we can perceive or deduce. "*The environment is commonly used to refer to the circumstances in which man lives*".² However, our understanding of the world would seem always to reflect the point of view of the observer to a certain extent.³ Thus, *the environment*, which unquestionably is an entity in itself, is, however, understood by humans only through their relationship with it.

Websters dictionary defines *economics* as "a social science that studies the production, distribution, and consumption of commodities" where 'economic goods' are "a commodity or service that is useful to man but that must be paid for".⁴ Goods that are useful but do not have to be paid for are 'public goods' and all other entities are excluded from consideration.⁵ Thus, we are in no doubt that the discipline of economics is concerned with the affairs of humans in an environment where all other entities are either instruments for potential benefit to people or are irrelevant to the field. The utility of such a theory in corporate planning depends to a certain extent on the degree to which corporate planning is also concerned with human welfare.

Planning is defined in the dictionary as "to devise procedures or regulations in accordance with a comprehensive plan for achieving a given objective (as in

¹ This proposition provides an important foundation for the philosophy of existentialism. To 'exist' or 'ex-sist' (Latin: *ex-sistere*) originally meant to 'stand out' or 'emerge'. Existentialists generally accept that all things 'exist' in as much as they 'stand out' from nothing; however, Macquarie explains that "man exists in the further sense that among all the beings that may be observed on the earth he 'stands out' as the only one that not only *is* but takes over its being in awareness of who or what it is and of who or what it may become." A corollary of this awareness is that the world is understood to be "an instrumental" world. Macquarie. *Existentialism*. London: Penguin Books, 1973. pp. 62, 69 & 85.

² Brackley *as quoted in* Winpenny, J.T. *Values for the Environment*. London: Overseas Development Institute HMSO, 1991. p. 1.

³ "The very word *world* is derived from the Old English compound, *weor-old*, in which *weor* means 'man' and *old* means 'age' or 'era', so that, taken etymologically, 'world' is the era of man." Macquarie. *op. cit.* p. 79.

⁴ *Webster's Third International Dictionary*. Chicago: Encyclopedia Britannica, 1976. Vol. 1, p. 720.

⁵ Hodgkinson, A. 'Ecology, The Environment and Economics' in Waud, R.N. and Hocking, A. *Microeconomics*. 3rd Australian Edition. Sydney: Harper Collins, 1995.

economic development or scientific research).⁶ Once again, the dictionary definition alone does not fully convey all that is entailed in the word *planning*; however, it does convey the sense that planning is directed towards the future and concerns the achievement of goals. The word *plan* originates partly from the Latin word *planus*, meaning level or flat, and partly from the late-Latin word *plantare* which means to plant.⁷ The etymological basis of the word suggests that planning entails not just any order of affairs but a constructive order, an order that ensures that foundations are level or that considers the many needs of successful agriculture, *id est* a goal-orientated methodology that is rational and based on an objective appraisal of available information.

Economics is predicated upon some basic principles, one of which is that human wants (demand) exceed what is available (supply).⁸ This in turn determines that economic goods acquire a value which is reflected in ‘the market’ as a price for the good.⁹ As many goods are actually produced by using materials that are in themselves economic goods, the market price of any downstream product should reflect the cost of all the goods expended in its production plus profit. Economic theory postulates that the market will always try to maximise profit and will therefore produce more of any good that is in demand because it will sell for a high price and hence potentially deliver more profit. Therefore, the theory holds that the market makes for an efficient production of goods because it will always cater for demand at the least possible cost and that this mechanism provides for the greatest satisfaction of human wants.¹⁰

Corporate planning does not always have to embrace human welfare as its stated goal; however, enlightened self-interest will ensure that any plan will at least, even if implicitly, consider human welfare (or perhaps more accurately the welfare of some humans) as part of its goal. Of course, much planning is explicitly concerned with socio-economic development and human well-being. Human welfare is palpably associated with the availability of the resources needed for survival and comfort, many of which are in limited supply and are, therefore, ‘economic goods’. Because responsible corporate planning requires an objective appraisal of available information, and as it always considers the welfare of humans to a certain extent, the theory of economics, which furnishes information concerning human welfare, is thus at the core of planning.

However, in acknowledging the essential contribution of economics to corporate planning, we are compelled at once also to admit the limitations of that contribution. “Economic principles, or theories, are necessarily abstractions. They do not embody the full bloom of reality. The very process of sorting out *non-economic and irrelevant facts* in the fact-collecting process involves abstracting reality” (my emphasis).¹¹ Nevertheless, the process of planning must consider any factor that may have a bearing on the achievement of determined goals. These would include factors that would not be recognised as economic goods. Therefore, although economic theory

⁶ Webster’s Dictionary. *op. cit.* Vol. 2. p. 1730.

⁷ *Ibid.* p. 1729.

⁸ Alchian, A. & Allen, W. *University Economics*. California: Wadsworth Publishing Co. 1974. p. 7.

⁹ Jackson, J. & McConnell, C. *Economics – Second Australian Edition*. Sydney: McGraw-Hill Book Company, 1985. pp. 44-58.

¹⁰ *Ibid.* pp. 63-69.

¹¹ *Ibid.*, p. 6.

provides information that planners must consider, as an abstraction that does not concern itself with all the information available, economics does not provide *the* answer to planning questions. Economics is one factor in corporate planning, but it is an important one because it encourages planners to reflect on the cost of their proposals.

The influence of economics on corporate environmental planning is illustrative of its influence on planning in general. As noted earlier, economics disregards “non-economic and irrelevant facts”. However, the utility of economics is weakened if ignored facts are not actually irrelevant to the production of economic goods. For example, if a wet land plays a role in mitigating flood damage, it may contribute to agricultural production, but the cost of providing that service (in benefit foregone by not developing the wet land) is not factored into the price of the agricultural goods in the market. In other words, because flood protection cannot be denied to anyone who refuses to pay, it cannot be sold and becomes a public good that is ‘external’ to price considerations.¹²

Another externality is the production of an economic good that involves the actual utilisation of public goods, such as natural resources, for which no payment is required.¹³ This may entail either the exploitation of a resource at a rate that results in depletion, or in the destruction of natural resources through pollution or incidental damage.¹⁴ As no payment was made by the producer, no cost for the resource is reflected in the market price. In other words, the market has failed to cost the product fully by ignoring externalities and public goods.¹⁵ Winpenny notes that “*Market failure* is the underlying rationale of environmental economics” and explains that failure to recognise negative impacts on the environment as a cost can result in an inefficient allocation of resources by the market.¹⁶

Economic theory cannot easily overcome the difficulties posed by externalities. Much of the data that would be needed to value natural resources accurately is not available and would be difficult, if not impossible, to compile. As discussed above, our understanding of the environment can only ever be limited because we do not have perfect knowledge. For example, if we set aside the complex tasks of detecting and explaining change (both of which are essential in measuring the *supply* of a resource, determining *value* and apportioning *cost*), we are left with the problem that “even the (biological) diversity of (marine) areas that have been *exhaustively studied* is not fully appreciated.” (my emphasis).¹⁷ Furthermore, the linkages between different aspects of the environment are not well understood, so the potential impact of a certain activity may not fully be predictable.¹⁸ Even if the myriad of problems posed by the complexity of reality were to be overcome, within economics theory itself, there is the

¹² Scodari, P.F. Wetlands Protection: The Role of Economics. Washington, D.C.: Environmental Law Institute. 1990. p.22, see also Hillel, D. Out of the Earth. New York: The Free Press, 1991. p. 270.

¹³ Winpenny, op. cit. p. 2.

¹⁴ Goodland, R. (et al) Environmentally Sustainable Economic Development: Building on Brundland. Paris: UNESCO, 1991 & Duthie, D. ‘How to Grow a Green Economy’ New Scientist. 30 January 1993. p. 39.

¹⁵ Winpenny, op. cit., p.2.

¹⁶ Loc. cit.

¹⁷ Holloway, M. ‘Diversity Blues’ Scientific American. August 1994. p. 10.

¹⁸ Scodari, op. cit. pp. 26 & 27, see also Anderson, D. ‘Red Tides’ Scientific American August 1994, pp. 52-58.

dilemma of deciding whether different ways of measuring capital should be accorded equal validity.¹⁹ For example, if fish stocks are depleted but equal value of a different resource is produced, has there been a net depletion of resources? Duthie poignantly reminds us that “you can’t eat opera”.²⁰

However, economics has become significantly influential in policy formulation and decision making in both the private and public sectors.²¹ Therefore, corporate planners cannot dismiss economics as nothing more than a distorted depiction of reality because to do so would be recognised as a weakness of any plan. In order to make the conceptual tool of economics as useful as possible, corporate planners in responsible companies have begun to explore methods to bring externalities into economic models.

Economics advocates assessment of any proposal on the basis of a comparison between the benefits to be obtained and the costs and risks incurred in accordance with “the law of diminishing returns”.²² Clearly, the conclusion of such a study will be affected fundamentally by the costs considered and the benefits recognised. Cost/benefit and risk/benefit analyses are powerful tools for planners but their usefulness will depend on the extent to which determining factors are represented accurately, and whether definitions and assumptions are clearly understood and stated. The value of the environment in the production of economic goods should be reflected in the economic model as a cost, and the benefits enjoyed by way of an unaltered environment reflected comprehensively. Therefore, economics has the potential to encourage corporate environmental planners to broaden their understanding of costs and to search for mechanisms to bring these costs into consideration. For example, tradable permits to emit pollution have been proposed in some countries, and already adopted in others, as a means to help focus the awareness of producers on the environmental costs of their activities.²³

There is no universally accepted methodology for the valuation of environmental contributions. Identification of the *functions* of the environment rather than a simple tally of “the use of natural goods with direct utilitarian benefits” helps to make cost/benefit and risk/benefit analyses more useful to planners; however, the parameters for determining function remain problematic and therefore potentially contentious and subject to manipulation.²⁴ One method that can help to overcome the possibility of narrow focus or vested interests is to ensure that corporate planning is conducted by a team of people from differing specialist areas wherever possible.

Economics is not synonymous with planning but remains an important factor. Many functions of the environment are external to economic parameters. This can result in a failure of the market to determine the true cost of goods, which in turn can lead to a misallocation of resources. At best, the consequences could be a completely

¹⁹ Winpenny, *op. cit.*, p.3.

²⁰ Duthie, *op. cit.*, p. 41.

²¹ Davis, G. (et al), *Public Policy in Australia*. St Leonards: Allen & Unwin, 1993. pp. 237-239.

²² Jackson & McConnell *op. cit.*, pp. 434-435 *see also* Lal, P.N. *Conservation or Conversion of Mangroves in Fiji*. Environment and Policy Institute East-West Center, Occasional Paper No. 11, 1990. p.1.

²³ Hodgkinson, *op. cit.*, p. 12.

²⁴ Lal, *op. cit.*, p. 4 & Winpenny, *op. cit.* p. 7.

inaccurate and flawed cost/benefit or risk/benefit calculation as a result of unforeseen cost blowouts. At worst, the project could even collapse under unanticipated lawsuit, fines or through market forces. The importance of economics as a tool for interpreting information relevant to human welfare has encouraged responsible corporate planners to look for mechanisms to correct market failure by identifying a value for environmental contributions that can be brought into a cost/benefit or risk/benefit calculation. However, the mechanisms for achieving this goal and allocating a value to environmental contributions remain problematic.

A tempting solution to the dilemma of reconciling economics and the environment in corporate planning might be to ignore the issue entirely and hope for the best. I suggest that this is a course only for the foolhardy. The challenge of allocating a value to environmental contributions such that they may be incorporated into cost/benefit and risk/benefit calculations is one that a wise corporation will embrace and document as thoroughly as possible during the planning process. Only in this way can the corporation provide evidence of due diligence in the field of environmental management. We would do well to recall that market forces, the law, and Government regulators are much kinder to management attempts that are not quite perfect than they are to ignorant disregard and negligence.

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