HOW LANDOWNERS CASH-IN ON POLLUTION ABATEMENT

IN PARTS of the developed world, many people are complaining bitterly because environmental restrictions have reduced employment opportunities through cutbacks in production. Requirements for assessing environmental impact have retarded and cancelled well-publicized plans for expansion of jobs and output. Job expansion has depended on the flouting of environmental protection codes. These conditions of trade-off exist because of the different demands of those who prize economic growth and those who prize environmental integrity.

More such trade-offs loom if limits are placed on growth so as to preserve nature-rich areas and conserve non-renewable resources. In the trade-off between economics and ecology both sides have legitimate claims for positive social action that would help to fulfil their aspirations toward the good life. If one side is favoured at the expense of the other, tensions may develop that could damage the delicate network that keeps members of the advanced societies in political harmony.

The early skirmishes in the economics-ecology conflict have not yet produced acceptable proposals for coping with this uneasy situation. Perhaps beneficial ideas can arise from the application of Alfred North Whitehead's observation that great achievements have come from a willingness to analyse the obvious.

CONSIDER Tonawanda Creek as it flows through western New York State. On its way to the Niagara River, it collects inadequately treated sewage, phosphates, fertilizers, industrial waste and pesticides. The poisons going into the creek make swimming dangerous and fishing worthless. The poisons foul nearby wells and make boat maintenance more difficult.

Suppose all polluters were impelled to stop their polluting. How would the costs and benefits of pollution-abatement be distributed? The first burden-carriers have to be the polluters because of the cost of changing processes, of installing abatement equipment or of neutralizing noxious waste products.

Pollution-abaters with something to sell are likely to try to pass their increased costs on to their customers by raising prices. Demand by these customers at abatement-affected higher prices could be elastic and fall. Customers would suffer from abatement by being deprived of supply at cheaper prices. The cutback in output would make some labour and some capital redundant. Suppliers of the displaced labour and capital are likely to flee pollution-regulated sectors, if their economic distress cannot be alleviated by low cost adjustments.

Economic Answers to

ONE OF THE truisms of the ecology movement is this: everything is connected to everything else. Everything else must include economic phenomena. A parallel truism of the body economic is: the cost of anything depends on the cost of everything else. Everything else must include the cost of the air we breathe and the cost of the water we drink.

These truisms are evidence that both sides in the ecology-economics conflict are aware of essential inseparability. Despite the sense of interdependence, both sides seem to be seeking separation in thought that will justify giving one side ascendancy over the other. Both sides should, instead, be seeking a principle of reconciliation or mutual enhancement. Analysis of the obvious suggests that the needed principle involves land values.

Some people conceive of land value as being simply the price that inspires the transfer of land titles from one person to another. In this conception, land may be said to function as a specialized form of capital meriting treatment as a commodity, with its price determined solely by supply and demand.

Increased demand for commodities usually provokes increased supply. Since land is fixed in quantity, increased demand cannot bring increased supply. Nor can falling demand decrease the supply of land. Categorizing land as a commodity and defining land value as the price of that commodity cannot be considered a sufficient description of what happens in the real world.

Supporters of the conception of land as commodity, argue that the price is always right when set by supply and demand. Any interference with supply-demand action must be deemed as a deterrent to social progress. How can such a rigid proposition admit of ecological concerns without subverting the proposition?

Other people regard land pricing as a process, as a means of calculating the many factors, public and private, that make land useful. The process of land pricing through free bargaining is an operation for arriving at figures that express the productive use value of particular sites at a given time under a given set of social conditions.

In this second conception, productive use sets the limits of rise and fall in land values, with final figures refined by supply and demand. This conception provides a convenient calculus for predicting and measuring the economic consequences of any factor bearing on land use. *Ecological concerns immediately fall within the sphere of this calculus.*

Many people who seek to promote the general welfare, argue that this goal is well-served when land gets its best and highest use. They further argue that the most economically sensible use of land usually occurs when a site goes to the person who can pay or generate the most ground rent. Unfettered use of land is now a thing of the past. Environmentalists have sensibly pressurised legislatures and regulating agencies into asserting this permanent proviso. Other people and other sites must suffer minimal damage from the highest and best use.

SUPPOSE that, prior to any confirmation of land tenure, a maximum value were established for

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The flight of capital and labour from any area has to make land values in that area go down.

If demand for pollution-abaters' products were inelastic, that is, if first-stage customers accepted higher prices by buying at previous levels, pollution-abatement burdens would fall on first-stage customers. The customers of pollution-abaters are likely to try to pass along their increased costs to their customers and so on down the economic ladder to final consumers. Somewhere in the course of the "pass along" game, some of the players may not be able to pass along the added costs originating in pollution-abatement, and they will have to rearrange consumption and production plans downward. The associated labour and capital will have to move, literally or economically.

Regardless of demand conditions, some customers of pollution-abaters will join them in carrying the burden of pollution-abatement. When these burdens are insupportable or none transferable, capital and labour will move from one site or use to another. Sites adversely affected by ecological encumbrance must experience a fall in values or a retarded rate of return.

THE CONJECTURED cessation of pollution in Tonawanda Creek would confer a considerable economic gain on at least one group of people. This group comprises property-holders downstream from the polluters. With no expenditure of effort or money, they would find their property values rising considerably. The real estate market would capitalise into higher land prices the presence of an enhanced environment for swimmers, fishermen, boaters, picnickers, etc.

The general effect on property values of changes in the state of pollution can be no different from the often demonstrated effects of changes in social conditions surrounding human enterprise. If access, policing, fashion, regulations, demand, population and so on, undergo change, there must be corresponding changes in opportunities, to achieve satisfaction. Where markets are reasonably free, changes in opportunities must produce proportional changes in demand for some or all kinds of land. This change in demand must eventually be expressed in land prices, some going up and some going down.

Human affairs are so rich in detail, variation and complication that they overwhelm those who try to discover how and why things happen. In the interest of mental economy, thinkers are forced to separate human affairs into manageable categories. In many cases, separation and classification of phenomena is distinct. In some cases, there is enormous overlapping. How much separation exists in reality between economics and ecology?

Ecological Problems

each site either by appraisal or by public auction, as conditions warranted. Let site tenure by government be granted or maintained from payments determined by maximum site value. A site cost so determined may be deemed a positive opportunity cost, because the cost to a willing user must be reasonably proportional to the locational benefits received by the user.

If compelled to erect pollution-abatement equipment, site users would be turning capital funds from a productive use to a non-productive one. Such diverted funds lack direct earning capacity. Capital funds made non-earning by compulsion may be justly classified as negative opportunity costs.

It is well established that positive opportunity costs in the form of ground rents or land values are never passed along to customers in the form of higher prices. It has also been established that pollution-abatement costs, as currently imposed, are almost always passed along to customers, one way or another.

Efficiency in the use of resources requires the keeping of opportunity costs at a level that provokes the highest and best use of land.* The next step in getting the needed ecological-economic coordination tool is this: use the growing discipline of technology assessment in cooperation with accepted accounting practices to find a rational method of defraying the costs of deploying properly imposed pollution-abatement techniques.

By this time, technology assessment should be able to provide a feasible set of requirements for environmental protection in all kinds of economic enterprise. If conditions for site use are severely restrictive, the advantage to particular users of particular sites must be lower than under conditions of little restriction. When land users calculate their chances of a successful enterprise, they will translate restrictions into lower opportunity values and bid less for land tenure. How low will the bids fall? In a reasonably competitive market for land, bids for land tenure would vary by amounts that depended on the perceived costs of environmental code conformity.

As a condition for maintaining land tenure, existing and potential polluters would bear the initial costs of erecting environmentally governed production facilities. How do we keep these costs from being punitive costs that will either lower production or raise prices? By remembering that opportunity costs may be divided into two classes.

Final site tenure cost would be based on the summation of the two pertinent kinds of cost. One would be the periodically revised maximum annual value of the site, the positive opportunity cost. The other would be negative, the annually amortized cost of introducing pollution-tempering structures into production facilities. The negative cost should be set by free-market negotiation between firm managers and technology assessors.

Tenure would derive from payments based on the net annual opportunity cost. The final figures would essentially come from highest-use site value minus amortized costs of compliance with environmental codes. If, in the absence of ecological rules, opportunity costs were such as to permit and encourage the maintenance and expansion of jobs or output, then they must remain so

in the presence of ecological rules.

The proposed plan for efficient and ecologically-sound use of land would carry a crucial protection from a kind of competition that could subvert the actions of an economy seeking a wholesome environment. Enterprises bound by ecological rules would have marginal costs essentially equal to those of enterprises not bound by ecological rules. No enterprise would have higher costs under jurisdiction seeking environmental integrity than under jurisdictions that did not require pollution control. Environmental codes would never provoke capital flight.

£½m. cadastral survey

THE Land Decade Educational Council has launched an appeal for £500,000, to finance a cadastral survey in Britain. The Council hopes to repeat the survey every 10 years: "The one ignorance we can least afford is not to know what is happening to our land."

The first Land Utilisation Survey was conducted by Sir Dudley Stamp in the 1930s. The second survey was carried out in the 1960s by Miss Alice Coleman, a geography lecturer at King's College, London. Between the two surveys, Britain lost 1,250,000 acres of improved farmland – much of it allowed to deteriorate into wasteland.

This waste will accelerate until we have irrefutable proof in the form of constantly updated maps, says the Council. "No financial help can be expected from Government," it states.

The present system has serious imperfections. Builders do not have full information about available sites, for example, so they gravitate to greenfield sites for their developments. A cadastral survey would identify sites suitable for development, says the Council.

Among other benefits: land prices might come down, because knowledge of all the alternative sites would make sellers more competitive.

JOSE ANGLADA PRIOR

J. Paluzie Borrell writes: After a long illness, our good companion Jose Anglada Prior died in Masnou, a small town near Barcelona. He was eighty-six years old, and has left a widow, three married sons and nine grandchildren. Some years ago he became blind but he learnt to read, write and type by Braille. He was deeply committed to Henry George's economics and philosophy, and was an excellent teacher. In 1927 he published a grammar of the Esperanto language which was reprinted several times. In 1959 he won the first prize in a competition in the Academy (now Royal) of Moral and Political Sciences, with his essay The Fiscal System and the Condition of the Working Classes.

We need to ensure that opportunity costs remain at incentive levels in the long run as well as in the start-up period. There should be an end to the practice, current in many places, of putting extra burdens in the form of tax penalties on producers who put up pollution-abatement structures. These structures are too often classified as capital improvements and taxed as such. Taxes on installations designed as pollution-abatement facilities should be zero.

SOME OF the early burdens of pollution-abatement would fall on taxpayers in local tax jurisdictions surrounding enterprises that operated under the proposed conditions for land tenure. The revenue to local government from ecologically-constricted enterprises would fall. If local services remained the same, neighbouring taxpayers would have to make up the deficit.

This deficit-derived burden of higher taxes on neighbouring properties would be equitable. Property-owners would be paying for benefits received in the form of pollution-abatement. This financial burden would be compensated for when the properties were sold. The real estate market would capitalise the virtues of living in a better location into higher selling prices.

Environmental improvement is likely to increase output and employment in the construction trades. Many areas, now slums, have easy access to good roads and are close to amenities and work sites. Many of these slums became slums because of pollution-poisoning. Pollution-temperance is sure to provide many slum areas with the best stimulus to renewal there is – enhanced land values.

The more sites in use, the larger the effective tax base. A wider tax base would compensate for any loss in revenue from industrial operations paying taxes derived from net opportunity costs based on the ecology-land value interaction.

Taxes based on the ecology-land value interaction can be expected to possess a "ripple" effect that should expand in proportion to social need. This will show that the power to tax can be creative as well as destructive. It must be stressed that creative or constructive elements in any kind of taxation can come only when the tax mode suppresses neither equity nor efficiency.

Pollution and pollution-abatement cross tax boundaries. A problem in equity would arise when the costs of pollution-abatement were borne in one fiscal zone and the benefits therefrom accrued in another. The solution to this difficulty depends on what may be called the "decartelising" of taxes.

Customarily, taxes on land and buildings are allocated to small political divisions—cities, villages, townships and counties. The interest of economic-ecological peace requires breaking the tax cartel. The larger political entities must some day come to use land values, in part or whole, as the proper basis for allocating tax burdens. When this is done, complex equity may be provided in environmental cost-benefit accounting.

Waste disposal and subsidies

'The exponentially growing problem of waste disposal is one that may require outright subsidy payments to disposal firms rather than tax abatement. The justification for subsidies in this case is the protection of supermarginal land from contamination that can migrate from submarginal disposal sites. The subsidies would function as a means of converting negative site values to positive values sufficient to command sensible economic activity.

How should waste disposal subsidies be financed? Should the funds come from the general treasury? It would be most sensible to have disposal financed from a special treasury fund that would arise from land values enhanced by environmental protection. If subsidies were fixed by competitive bidding for disposal contracts, the use of earmarked environmental funds would constitute a recycling operation compounded of equity and efficiency.'