nature

How can polluters be made to pay?

The doctrine that polluters and other environmental desperadoes should be required to pay for the damage they do is beguiling, but first requires general agreement on broad philosophical principles unlikely soon to be reached.

DR David Pearce, professor of economics at University College, London, scored a big success last week when the new British Secretary of State for the Environment, Mr Christopher Patten, cautiously approved a report which, among other things, argues that the rational protection of the environment requires a system by which environmental assets and natural resources are valued financially, so that their use (or the damage done to them) can be taxed on an equitable basis. The proposition appears to be equitable both between people now alive and those likely to be alive at future epochs. But it is unworkable except in the most restricted fields.

That polluters should pay is a sound principle, nominally the basis of British environmental policy for decades, but more often honoured in the breach than the observance. Although Patten's predecessors have paid lipservice to it, they have usually found that there is no sound basis on which charges can be levied. In principle, the managers of a water-course might argue that those discharging effluents should pay charges proportional to the biological oxygen demand (BOD) of their materials. But what is to be done about inorganic pollutants, for example? And should latecomers to a river-bank pay more than early arrivals because of the probable nonlinear effects in the absorptive capacity of the watercourse? In Britain, in practice, the application of even this simple principle is too often thwarted by the fact that the managers of watercourses (the statutory water boards) are also the chief sources of BOD (as sewage).

The problems are more serious when comparing different kinds of pollution, for example the discharges to the atmosphere from nuclear power stations and those burning fossil fuel. Nuclear power stations unavoidably generate quantities of radioactive isotopes of the rare gases, mostly argon, which contribute to radioactivity in the atmosphere and which as a consequence may increase the incidence of lung cancer, but to a degree that is hardly large enough to be called marginal compared with natural causes of radiation (leaving cigarette-smoking aside). But fossil-fuel power generation is much more hazardous: apart from being one cause of acid rain, it is also a substantial cause of ill-health, perhaps even premature death, from bronchial diseases. But what politician, these days, is likely to take up the cause of taxing nuclear generating plants less heavily than more old-fashioned plants, however compelling the logic?

The balance between one generation and its successors is even harder to strike sensibly. Take, for example, the present use of petroleum, the reserves of which are finite (in the sense that the quantities that could be produced at present prices must be limited). So it is possible to argue that the present generation should tax petroleum so as to discourage its use, leaving some part of the present stock for the next generation. But that would turn out to be a self-defeating self-denial if, in the next century or so, some other substantial source of energy makes its appearance. And, quite apart from thermonuclear fusion, are there not solar power, wave energy and windmill energy at the front of many people's minds?

The essential weakness of the Pearce proposition is that, while it may make sense in restricted fields, it quickly becomes a nonsense when there is no objective basis for evaluating the damage done by pollution or other environmental insults. There can be no substantial basis, for example, for putting a price on the continued survival of whales or tigers, but such a price would probably be negative (whales eat krill, which might otherwise support commercial fisheries, while tigers kill people among other creatures). And there is a further weakness underlying this beguiling but illfounded argument: since the ultimate cause of environmental damage is people, should births be taxed? And on what basis?

Poland's way ahead

The new regime in Poland has to walk a delicate tightrope. Here is how well-wishers can help.

THE irony that the appointment of Poland's first Solidarity prime minister (but Mr Tadeusz Mazowiecki has not yet formed a government) should almost coincide with the fiftieth anniversary of the treaty between the Soviet Union and the Third Reich might almost have been deliberate. That treaty is now acknowledged to have included a hitherto secret protocol in which the two signatories agreed on the partition of Central Europe, and of Poland in particular. A shrunken Poland has been part of the Eastern bloc, and a member of the Warsaw Pact, ever since. Well-wishers should keep in mind that it will remain so for a very long time, perhaps indefinitely.

That, of course, is why Polish politicians have been