

## Stewardship of resources

SIR—Your leading article “Doctrinal fallacies of stewardship” (*Nature* 344, 179; 1990) claims that the loss of various natural resources through consumption by commerce and industry have been “more than compensated for by gains in social capital (which term includes not only most countries’ educational systems but the world’s accumulated stock of technical skill)”. This is highly debatable. And it is certainly not immediately obvious that even all of the article’s seemingly random list of lost resources (auks, emeralds, surface coal, molybdenum (soon) and amber), have contributed to social capital in due proportion to their original quantity or value. Have auks or amber done so? It is in this light that the scorned remarks of M. Jacques Delors, president of the European Commission, concerning the need for respect for “nature for itself”, should be viewed as an appropriate and balanced warning that things — including living creatures — are all aspects of one reality that civilized persons ought to respect.

As for the “horrendous pollution of Eastern Europe” being regarded as a “product of economic stagnation”, it should be noted that industrial pollution, so prevalent and widespread in the West, is especially severe in countries that are customarily regarded as examples of progressive and dynamic economies. The real point is surely that criminal industrial mismanagements have been equally responsible for pollution in both East and West. And are we to suppose that the article is serious when it claims there is no place “where the impairment of public health by industrial pollution outdoes the improvement of public health brought about . . . by the rational improvement of water supplies and . . . by the practice of . . . often rudimentary medicine”? What an absurd notion of a rational trade-off this would be. Anyway, even if the measures begun a century ago did clean up domestic water supplies in the West, the acceptability of these same supplies is now everywhere threatened by present industrial pollution from which further “rational improvement” appears unlikely to give general (and economical) further relief. Future corrections are likely to require far more radical approaches.

As for petroleum, it makes no sense, of course, to conserve it, if the future world will not need it. But what if our descendants could find different and better uses for petroleum, that we are unable to foresee? Meanwhile, environmental scientists are distressed not by loss of petroleum but by the effects of automobile exhausts on quality and temperature of the atmosphere.

As for species exterminations, how can

the existence of species that man has “made to flourish” offset the horrendous loss of species already logged — losses that continue? What of the consequences of reduction of genetic diversity and in the variety of organisms, as these will affect the life sciences? Is the imminent demise of the African elephant, the rhinoceros and so on to be viewed with calm?

Your writer approves the United States’ proposed elimination of its budget deficit “that cramps its freedom” by “growing so fast that the tax-yield will grow faster than the government’s obligations”. This must be a new “trickle down” economics that may be presumed will eventually benefit developing countries as US industry pays them the usual Western pittance for their labour and for further denudation of their unrenewable resources.

Rate of change — of the environment, of industrial activity, of human population growth — is the rock we are all apt to perish on. And that problem, caused by heedless governments and serviced by an industrial machine that runs without a governor, is what we find increasingly difficult to respond to. We can — and must — still win.

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## Abortion limits

SIR—It is in fact not true that the “legal time-limit for abortion” in Britain is at present 28 weeks (“Abortion from a hat”, *Nature* 344, 476; 1990), even though this is now widely believed.

What the Infant Life (Preservation) Act 1929, explicitly confirmed by the Abortion Act 1967, actually says is, first, that “any person who with intent to destroy the life of a child capable of being born alive, by any wilful act, causes the child to die before it has an existence independent of its mother” shall be guilty of the offence of “child destruction”. And, second, that “evidence that a woman had at any time been pregnant for a period of 28 weeks or more shall be prima facie proof that she was at that time pregnant of a child capable of being born alive”. That, incidentally, must mean “capable of surviving if born alive”.

But this neither says nor implies that before the 28th week a child must be presumed not to be capable of being born alive, and nowadays a healthy prematurely born baby, if given all proper care, has an increasingly good chance of surviving from about the 22nd week onwards. It would seem therefore that to destroy any unborn child at this stage would be an

offence under the 1929 Act, if strictly interpreted.

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■ Under the Human Fertilization and Embryology Bill, Members of Parliament have voted for an upper limit of 24 weeks, except where the mother’s life is endangered or the fetus is handicapped. □

## Embryo research

SIR—Peter Aldhous (*Nature* 345, 283; 1990) alleges that “the present Interim Licensing Authority guidelines recommend that three IVF embryos should be placed into the uterus to ensure a reasonable success rate”. The guidelines say no such thing.

In its fourth report (1989), the Interim Licensing Authority drew attention to the most recent statistics (from 1987) which showed the large incidence of multiple births resulting from IVF (*in vitro* fertilization) and GIFT (gamete intrafallopian transfer) treatment, with consequential medical, social and economic disadvantages. The relevant guideline (12) states that “consideration must be given to ensuring that, while a woman has the best chance of achieving a pregnancy, the risks of a large multiple pregnancy are minimised. For this reason whether IVF or GIFT procedures are used either jointly or separately no more than three eggs or pre-embryos should be transferred in any one cycle, unless there are exceptional clinical reasons when up to four may be replaced per cycle.” This guideline sets *upper limits*; otherwise it makes no recommendation as to the number of pre-embryos to be transferred, but it warns of the potential dangers.

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SIR—Your readers will wish to learn that among the countries with legislation on embryo research (*Nature* 344, 691; 1990) is Spain. In November 1988, the Spanish Parliament passed a bill titled *On Techniques of Assisted Reproduction* (BOE 282, 33373-33378, 14 November 1988), which makes it possible to carry out any procedures aimed at assessing viability of live preembryos, described as fertilization products up to 14 days, as well as at detecting a hereditary disease and advising against their transfer for procreation.

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