

OLD WORLD

ENVIRONMENT

The Third Coming

LAST week Dr Paul Ehrlich addressed the Conservation Society as its new president. Two thousand five hundred people packed Westminster Central Hall to hear him speak on his third visit to Britain. His subject was "The Population, Resources, Environment Crisis—Where Do We Stand Now?"

He began with a brief historical survey, explaining that the world's population has been doubling faster and faster and is now doubling once every 35 years. This, he said, was primarily the result of a decline in death rates. He warned of the effects of rapid population growth, comparing mankind with fruitflies, which land on a banana and breed at an alarming rate until their food supply is exhausted, when there is a crash in the population and most of the flies die. A couple of pregnant flies fly off, however, and the cycle starts again on another banana. And the difference between man and the fruitflies, said Ehrlich, is simply that man has only one banana.

Today, he said, between three and seven times the population that can be sustained at a reasonable level is being supported in the world, but only because capital resources are being burnt up at an extreme rate.

Turning from the world's population to its resources he said that between 10 and 20 million of the 60 million people who die each year die from starvation. If all the food in the world was divided equally among the population there would be just enough calories per person and not enough protein—we would all be undernourished. It is easy to meet the world's calorie demands, but when it comes to high quality protein the world situation is desperate. And the fisheries will not provide the answer. Today 60 million tonnes are harvested annually from the sea. Conservative estimates say that the highest possible sustained yield will be 100 million tonnes. If the world population doubles in 35 years, we will be 20 million tonnes over the supply limit in 35 years. If the optimistic predictions are right, the sea could yield 200 million tonnes a year, in which case demand will still exceed supply in 70 years' time.

Some steps, however, are being taken to counteract the problem. The green revolution is helping to increase yields in underdeveloped countries. But this is only buying time. Possibly the damage it does will eventually outweigh the benefits.

Dr Ehrlich argued that even if the world's population growth were

stopped by the year 2000—which is more optimistic than anybody's prediction today—there will still be 1,300 million Indians, the population of the underdeveloped countries will still be 2.5 times its present level and the demand on the world's resources will not fall off until well past the middle of the next century.

More energy goes into growing one pound of wheat than can be gained from eating it, he warned. And even if we do not add any more DDT to the environment it will be a decade before the full impact is felt on sea foodchains.

Ehrlich is no mean speaker. Words poured from him like steam from a boiling cauldron. But it was no evening for a scientist. Ehrlich was there to convince rather than to prove (what else could he do at a public meeting?), and when the going got tough he exhorted his audience "if you don't understand it, take it from me".

Turning to what can be done in the face of such a crisis he said that the UK may feel pretty insignificant with a population of 50 million among the 3,700 million of the world. "But England may hold a key, maybe the key", to the problem. Her contribution would be a psychological one. The world still watches England for a lead, he said, and any decisions taken, such as to cut the population back to 30 million, would have a big effect around the world.

Again, we must do something about the automobile before it finishes us off. All cars must be banned from central London and we must reduce demands for power—for example by changing the rate structure for electricity so that the more you use the more you pay per unit.

But all this is going to hurt. It cannot be done other than by producing a redistribution of wealth throughout the world. We must face the fact that "the pie is finite and some people have a disgustingly large share of it". Britain could lead the way and is more likely to than America, in Ehrlich's opinion. He was encouraged by Prince Philip's stand on the environment, by Philip Whitehead's vasectomy bill and the signing of the *Blueprint for Survival*—"that brilliant well-done thing in the *Ecologist*" but discouraged by that "pathetic" and "atrocious editorial in *Nature*" and by the BBC's refusal to rescreen the programme "Owing to the lack of interest, tomorrow has been cancelled".

Nonetheless, he told the meeting, "You're on your way and the bulk of the people are with you". But society must take corporate action and that meant involvement in politics. There must not, he warned later, be a "them and us" attitude to politicians and in-

dustrialists—"not every Rockefeller is an enemy".

The chairman of the meeting Mr Peter Scott of the World Wildlife Fund. In his opening remarks he said that "the most important problem in the world is how to safeguard our life systems". He had been encouraged, he said, by the publication of the *Blueprint for Survival*, and by the declaration published in *The Lancet* and the *British Medical Journal*, and "saddened by the unhappy counterblast from that distinguished journal *Nature*. I don't think, when you leave this hall tonight, that you will have any doubt who is right."

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The Profit Carrot

PRESENT concern about the environment must be met by more, not less, production—but production of the right goods and services. This was the thesis of Dr David Hertz, Director of Technological Development of McKinsey and Company, New York, speaking at a Science Policy Foundation meeting in London last week. The meeting, which met to consider the ecological challenge to science-based industries, heard Dr Hertz express his belief that it is the science-based industries which can and must answer the challenge of ecological problems by redesigning their products to do less damage to the environment and by recycling waste energy and waste matter.

Dr Hertz argued that industry must change today's production line of materials, products and waste into a loop in which products and waste can be recycled. The Dow Chemical Company expects to make a profit from cleaning up pollution and Dr Hertz sees this as the carrot which will ensure industry's cooperation.

For Dr Hertz, at least, the road to survival lies along the use of much more technology to overcome the problems of waste and pollution. "The call to arms may be the job of amateurs," said Dr Hertz, "but the work to be done is not."

In conclusion, Sir Eric Ashby, chairman of the Royal Commission on Environmental Pollution, said that serious though the problems may be, scientists must not be irresponsible in their attitudes to it. He pleaded for "one more

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MRS MARGARET THATCHER, Secretary of State for Education and Science, announced last week the appointment of Sir Alastair Pilkington to the Science Research Council. Sir Alastair will replace Mr D. L. Nicholson who has resigned following his appointment as chairman of the British Airways Board.