CHAPTER 8

THE ENVIRONMENT

SUMMARY OF CONTENTS

I. THE ENVIRONMENTAL CRISIS

Environmental problems have existed in one form or another since time immemorial. Resources were used up or land became degraded, and responses took place. What has converted many smaller problems and crises into the global crisis of the last forty years or so is the increasing recognition of the combined and cumulative effects of what is happening everywhere. This can usefully be summed up in the idea of 'global finiteness'. The crisis stems from the recognition of the finiteness of the planet earth - a feature captured vividly by the image of 'spaceship earth' - and the fact that human practices in the latter half of the twentieth century are coming up against the limits imposed by this finiteness. This finiteness has always been there, of course, but it is now a real constraint on human action. It resolves itself into three areas.

1. ***Thefiniteness of non-renewable resources***: this refers to such resources as oil, coal and minerals, with the consequent problem that if these get used up too fast before adequate substitutes are found or other necessary adjustments are made, for instance towards using solar power as a major input to energy needs, we will not avoid major forms of economic dislocation and so on.
2. ***The finiteness in the carrying capacity of the world***: this is the finiteness of the world as a whole and of areas of the world to absorb the effects of human activity and pollution and/or to tolerate resource-extracting practices, without deleterious environmental change, damage and degradation. Pollution, largely a product of industrialised countries, degrades our atmosphere and water systems, leading to the destruction of forests (as is caused by acid rain), dead lakes and rivers and so on. The burning of fossil fuels is, it is now generally recognised, leading to global warming and climate change. Over-pressure on land in the Third World through heavy tree-cutting, over-grazing and overcropping is leading to land degradation and desertification.
3. ***The finiteness of areas in the world which produce renewable resources***: this relates to resources such as food and timber, and hence the problem that there are upper limits to the amount of renewable resources that can be produced by the planet on a sustainable basis.

In many ways the IPAT formula, as advanced by the Ehrlichs, is useful in capturing the nature of the situation (Ehrlich & Ehrlich 1991: 58).

Impact (on the environment) = Population x Affluence x Technology[1]

That is, the impact on an environment (local or global) is a function of the number of people, the material standard of living enjoyed and the kinds of technology used to sustain it. No doubt other factors need to be included (like the time period) but it is useful in that it shows that major adjustment in any of the variables may alter an impact on the environment. Growing populations in the South are often seen as a key problem to be tackled, whereas in the industrialised countries the key issue is usually taken to be the modification of technology - the greening of industry - and so on. What is not usually challenged is the level of affluence. Indeed the continued commitment to economic growth assumes that this can go on growing. Sustainable development, assumed by governments and industry to be the appropriate way to conceptualise the combination of environmental protection with development, is taken to be just that, economic growth so pursued with new technology that the environment is protected. Many more radical environmental thinkers simply challenge that assumption as naive, on the grounds that universal growth is simply not sustainable, even in the North let alone including the South catching

up (see Engel & Engel 1990). Two large countries, China and India, are currently doing just that.

For many concerned about the environment it was concern about the finiteness of non-renewable resources that led to the acknowledgement that there was a crisis, and to the acceptance of the need to check growth in the use of such resources: the Oil Crisis of 1973 was a catalyst in that respect. But since then it has been the second aspect of finiteness - finiteness in the capacity to absorb pollution - that has become of primary concern. The problems of acid rain or ozone layer depletion illustrate this, and the cumulative impacts of $C0_2$ emissions on the atmosphere with the danger of global warming have now become major preoccupations. The third dimension, the limits of the global system to produce renewable resources, in particular food, has always been a matter of concern to environmentalists, though to varying degrees. Clearly in many parts of the Third World there is pressure on land, due partly to rapidly rising populations, which results in starvation and malnutrition. But this is, it would generally be admitted, not because the world as a whole cannot (and does not) produce enough food for all, but because of poor distribution and the powerlessness of the poor to purchase it, when they cannot produce it. On the other hand, the population explosion is for many a major part of the environmental crisis, perhaps ultimately the crucial part. It must be accepted that there is in some numerical region an upper limit to what level of human population the planet can sustain. Whether or not the global population can stabilise well within those limits without Malthusian mechanisms of war, disease, famine and pestilence operating on a far greater scale than they already operate, is a crucial question.

In 1987 the Brundtland Report was published under the title ***Our Common Future.*** It was the work that really led to the near universal adoption of the goal of sustainable development. The document called for an international conference on the issues of environment and development and this took place at the Earth Summit in Rio in 1992, twenty years after the landmark conference on the Environment in Stockholm in 1972. The Rio conference adopted an ambitious programme of action called Agenda 21. Numerous agreements have been concluded, but still many people sense that we have not really changed tack in any major way, despite many further international conferences such as the world summits in New York (1997) and Johannesburg (2002).

II. THE ETHICAL FRAMEWORK

In some ways the ethical debates about the environment do not naturally mesh in with the issues concerning international relations which we

are discussing, though they are very relevant because environmental problems are nowadays essentially global. This difference of discourse is partly because most who think about the environment have assumed a 'global ethical' framework and sought to go beyond it. The debate within world ethics has been mainly between various theories (cosmopolitan) which say that we do have ethical relations to all currently living human beings on the planet and those which deny that framework, whereas much of the interest in environmental ethics is about whether for instance non-human life counts or whether future generations count. Failure to engage properly with the international relations debate is one reason why, despite so much concern about the environment and about the need to change our ways, so little actually happens. So we need first, as a continuation of setting the context for the international relations debate, to set out the issues which dominate environmental ethics itself.

A. THREE DIMENSIONS OF MORAL RESPONSIBILITY

In fact, we can identify three dimensions to moral responsibility, which environmental ethics brings out. Not all environmentalists would assert all three of these dimensions, but it is in the course of such debates that it becomes clear that it is possible that we have three kinds of responsibility; first to people living in the future, second to kinds of being other than humans, and third globally towards any beings anywhere. The point is that it is possible to deny all three extensions; that is, to deny that we have obligations to any but present generations or those living now, to deny that we have obligations to non-humans, and to deny we have obligations to human beings outside our own society. If one denied all three, one might have an 'us-here-now' conception of morality (my phrase); that is, the scope of moral concern is limited to fellow humans living now in our own society. Although this is hardly a conception of ethics which is advocated in bald form, it does represent how many people think and certainly behave in practice.

B. THE HUMAN-NATURE DIMENSION

Most ethical theories which have been dominant in the Western tradition have been human-oriented or anthropocentric. They have assumed that morality is about the relationships human beings have with each other, and that it is human beings who are the bearers of moral value. Most of the theories we considered in Chapter 5 on cosmopolitanism were anthropocentric in character. Natural law theories are concerned primarily with what is essential to the nature of human beings; human rights theories are explicitly about the rights of humans; Kant's theory is as we have seen centrally wedded to the idea of rational agency as the locus of the value of

humans as 'persons'; and Marxism shares this human-centred focus since it is human agency which creates the gap between culture and nature. The contractarian theory of Beitz, like contract theories generally, focuses on the contract between human beings as beings who have interests and are capable of contracting. Whatever its defects, utilitarianism has historically been open to wider interpretation, since Bentham well recognised that if the capacity for suffering (and pleasure), not rationality, was the determining characteristic for membership of the moral realm, then non-human higher animals were included.

Communitarianism as a basic ethical approach also tends to be human-oriented precisely because it is the traditions of human beings living together that creates value. Whilst a community can and sometimes does agree to confer certain values on some non-humans such as pets, the general emphasis is still on a community of co-operation between rational agents for mutual benefit. Likewise any theory which based morality on convention and serving mutual interests would see human beings as the bearers of moral value.

Though at least some of these theories can be adapted to 'expand the circle' of direct concern, it remains the case that the tendency of these theories has been to see human beings as special, perhaps because they are rational or are moral agents or possess souls. I stress this aspect of the theories we have considered earlier both to illustrate my claim that many environmentalists have a different framework, and to show how anthropocentric Western thought has been. It is because of this that the development of nature-centred or biocentric theories has been seen as a challenge to the standard assumptions about ethical thought.

What most divides environmentalists is the question of our attitudes towards nature. Granted that en vironmentalists generally agree on practical measures which are important, such as avoiding pollution, preserving areas of wilderness and species diversity and so on, the question arises: why are these things important? Let us take as an example the preservation of areas of wilderness (see Thompson 1983). Is this important because it contributes to the maintenance of a healthy biosphere which in turn is vital to the continued well-being of human beings? Is it important because areas of the world untamed by human intervention are sources of aesthetic delight and psychological refreshment for human beings? In these cases we clearly still have a human-oriented ethic: nature itself is of no intrinsic value, and in the last analysis the attitude of respect for nature is advocated not because nature is in itself worthy of respect but because this attitude in humans leads to environmentally sound practices and psychologically healthy states of mind.

On the other hand there is, as I have already implied, a nature-oriented

ethic, one in which life in general is seen as having a value which ought to be respected and promoted. What is wrong therefore with environmentally damaging practices is not merely that they negatively affect the long-term interests of human beings, but that they damage intrinsically valuable ecosystems, destroy the life and healthy state of plants and animals whose good is quite independent of human interest, reduce intrinsically valuable diversity, destroy objective beauty and so on (see e.g. Rolston 1988). One well-known figure in the ecology movement in the USA, Aldo Leopold, once advocated this principle as his 'land ethic': 'A thing is right when it tends to promote the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise.'(Leopold 1949: 224) On this view human beings are not at the centre stage of ethics, they are merely plain members amongst others of the biotic community. A related but distinct conception which also emphasises human responsibility for non-human life is the conception of humans as 'stewards' of nature (see Attfield 1983; Brown 2000).

The impression given by the outline in the last paragraph may be of only one overall position, juxtaposed to the human-oriented position. However, as with the latter, there are quite a number of different positions. For instance, one issue centres round the question: is it life itself that has value, or is it some feature or set of features, like sentience or the capacity to feel pleasure and pain, that gives certain forms of life a value which must be respected by human beings? If life itself is the key factor, then things like microbes and trees fall within the category of what has intrinsic value. Another issue, which is analogous to the 'holism versus individualism' issue in social sciences, is whether what has value are individual living things or, in addition or instead, species of living things, whole ecosystems, wilderness areas taken as wholes, the biosphere itself, or the planet, as in the Gaia hypothesis, thought of as a kind of living entity itself (see Clark 1983). Once it has been decided what things in nature have value, or are, to use a phrase sometimes used, 'morally considerable', that is, fall within the sphere of what must be taken into moral consideration, the further question arises as to how they are to be taken into consideration (Goodpaster 1978). Is the life of a butterfly as important as that of a human? Or the life of a microbe as important as that of a bat? If one adopts an egalitarian as opposed to a hierarchical approach, one could be very radical about appropriate human behaviour, unless the right to self-preservation allows humans a fair amount of ***de facto*** special status (Taylor 1986; Attfield 1983).

There is here a kind of ambiguity about the relationship of human beings to nature. If human beings are morally bound to respect nature and life in it, we seem at the same time to be both part of nature and apart

faint nniurc. On the one hand we are just part of the 'biotic community', * iiii no privileged status: our role is to fit in and be part of the wholeness <ɔr integrity of nature/creation. On the other hand, the very fact that we luive moral obligations makes us different from the rest of nature so far as we can tell, since the morality or ethos of a higher animal is seen as quite different. We are different not merely by virtue of our moral sense, but by virtue of our rationality and our freedom which means that we are not wholly determined by our environment (Matthews 1989). However hard we try to be literally a part of Nature or to abrogate our special status, we undermine the attempt, for the trying is part of what makes us different.

C. THE FUTURE DIMENSION

Let us now turn to the second dimension: How far ought the future to enter our moral thinking? This question is a perplexing one in some ways, and not all environmentalists will handle it in the same way (see Cameron 1989; Partridge 1990). Why are we concerned about the future? Take the case of nuclear power: it is commonly recognised that future generations, existing long after we are dead, will have to cope with contaminated areas associated with dead power stations and dumped nuclear waste. Does the thought that this will be so actually add weight to the moral arguments for winding down our nuclear power programme, given that we already have good reasons for so doing based on the risks and dangers to ourselves and those living now? (Shaw 1989) We can draw a clear distinction between the distant future, that of generations beyond our life-span, and the near future, that of our own life-time and that of those whom we know and love now. It is arguably easier to accommodate the future of present inhabitants of the world into an ethical framework, than to show why the fate of human beings yet unborn should concern us. Certainly, if we accept that the future states of present inhabitants can be of concern through prudence and love and thus through love one can be concerned with the future interests of those whom one loves, a powerful basis for motivation is given. Indeed John Passmore, who was one of the first philosophers to look at environmental issues, saw the chain of love and concern which runs through generations as being the moral basis for concern for the future (Passmore 1974: 88-9).

But there is rather more to our obligations towards distant generations than this. From a logical point of view it may be asked why, if a type of situation is taken to be good like a human being living in an acceptable environment, does the fact that it will occur in the year 2100 make it any less relevant than if it will occur in the year 2000? So if an action now can promote or prevent its realisation, that action ought, other things being equal, to be done or not done.[1] Perhaps it is rare that events or situations in

the distant future may hang in the balance so dramatically, but if what we do may have statistically significant effects on the way the distant future turns out for people, then it seems arbitrary not to take account of this. If after all it is said 'Well, it does not make any difference to us - they cannot help us!', the reply must be given, 'Does morality only require of you actions from which you expect some reciprocal benefit?' However there are several lines of resistance here.

Uncertainty about the Future

It may be argued that our efforts might be either redundant or pointless, since we do not know what developments in technology will bring about. Future developments may render what we do unnecessary, and conversely future developments such as catastrophes may render them useless. Such humility about the future is no doubt admirable up to a point, but since we need to work on probabilities, the general response is that we must do what is likely to be relevant to protecting the future. Likewise we need to resist the danger of relying on technology alone to solve our problems.

Sometimes it is argued that we cannot really plan to satisfy the wants of future human people since we do not know what they will want,as people's desires are largely determined by culture which changes radically over time. Again, we need to recognise this but also the fact that people's basic desires and needs for clean air, water, land, health and adequate nutrition are likely to remain constant. What we need to do now, as with development generally, is not make others achieve the good life as we conceive it, but to provide the enabling conditions in which they choose to achieve it as they will conceive it.

Do We Have Duties to Future People?

Other kinds of argument may be given which suggest that we do not have duties towards future people because they do not now exist. Their futurity and potential existence as opposed to actual existence takes them off the moral landscape, either because they do not exist (so they cannot have rights) or because in not being current members of our society and therefore not playing their part in a scheme of co-operation, they have no rights, since rights depend on reciprocity. The difficulties here are more theoretical. It is not clear that being in the future takes away their moral status, if when they exist they will be affected by our actions. If it is correct to say that we now have human rights, then when they exist they will have human rights, and so the duties apply to us now. As to the issue concerning reciprocity, it seems reasonable to argue that obligation does not depend on reciprocity, either actually received or capable of being received. The defence of cosmopolitanism in the book has in part

been the defence of a kind of ethical theory which does not make obligation depend on reciprocity.

D. THE INTERNATIONAL DIMENSION

Almost all environmentalists would insist that we adopt a global perspective in facing the problems involved.[2] Although some environmental problems occur entirely within one country as a result of what members of that country do, many of the more serious environmental problems in the world have cause-effect relations which are trans-national in character. Obvious examples are air pollution - acid rain and radiation from a Chernobyl disaster - and river pollution where one country's effluent becomes another country's problem downriver. Other perhaps less obvious examples of environmentally damaging practices are practices in one country which occur in order to satisfy economic demands arising in another country, for instance the cutting down of forests in the Third World in order to supply timber for furniture and newsprint in the First World.

Most thinkers would adopt the following maxim: where the lines of cause and effect run across nation-state borders, so do the lines of moral responsibility. To accept such a maxim is implicitly to endorse a 'global ethic', according to which the whole world is one moral domain, and the network of moral relationships extends in principle across the world. This kind of theory is of course the main preoccupation of the present book, and the implications of adopting it will be considered more fully shortly. The fact is that this area of environmental ethics is much neglected, partly because the global responsibility is assumed by environmentalists as self-evident. (For explicit discussion see Attfield 1999; McGraw & Nickel 1990.) But in fact it comes up against practices, by states and transnational companies, which show that either actors within these institutions are complete hypocrits or powerless victims, or the ethical perspective is certainly not self-evident. The Brundtland Report actually starts one of its chapters with the bald statement: 'The Earth is one but the World is not' (WCED 1989: 27). That is, the planet earth is one vast interconnected ecological whole, but the world as a set of human institutions is not, with fairly poor co-ordination of effort and lack of unity of purpose in responding to environmental problems. This reflects in the last analysis a continuing allegiance to moral values and priorities which are in conflict with the demands of a global ethic.

E. UNINTENDED CONSEQUENCES

Any moral theory that is adequate from an environmentalist point of view must attach importance to the unintended consequences of our actions including our omissions. That is, we must accept responsibility for the

unintended (and often unnoticed) consequences of our actions and our failures to act. Whilst it may seem obvious and uncontentious that we are responsible for some unintended harms, what is rather more at issue is how significant this side of moral responsibility is. It is part of the essence of the environmentalist frame of mind to lay stress on this. Equally it has been part of a common approach to morality to think light of this.

It is all too easy to think that what morality really requires of us is to avoid intentionally doing harm to one another, to avoid deceiving, stealing, letting down, assaulting, libelling one another and so on, and that generally what really counts in moral assessment is what one aims at or intends, either as the end of the action, or the means to some other end.[3] That might be all very well, if we lived in a world where the unintended consequences of our actions did not materially affect the conditions under which others pursued their objectives, or where our omissions did not fail to prevent some harm from occurring.

But the world is not like this, and one of the things which precisely brings this out is environmental constraint, which means that we must take very seriously the harm we may do or allow by inaction, without even noticing it. Environmental ethics is if nothing else an ethic of interdependence, and will not countenance the excuse 'I don't intend to help spoil the environment - all I intend to do is get to my meeting ten minutes earlier by private car than by public transport'. Nor is it merely the unintended consequences of particular acts which is important, but as this example shows, the contribution to cumulative impacts of large numbers of similar actions. Environmentalists might well adopt the spirit of Mill's remark in another context that an action may be 'of a class which, if practised generally, would be generally injurious, and this is the grounds of the obligation to abstain from it' (Mill 1962: 270).

III. THE THREE APPROACHES

A. INTERNATIONAL SCEPTICISM/RELATIVISM

It might be thought that environmental problems were the Achilles' heel of realism. After all if the realist is saying that there is no morality in international relations and the relativist likewise denies that we have duties of a global kind, the plain facts of the environmental predicament and our response to it simply falsify the position. Clearly nations have to co-operate and agree to international standards if the environmental problems are to be tackled, and individuals must recognise that they have duties to play their part in protecting a common environment. However such a conclusion would be too quick and fails to appreciate moves that can be made to support the spirit of the sceptical position.

('Icarly it would be very difficult to see a realist trying to make the case lui the existence of a moral vacuum if that meant there being no rules or laws in operation in international relations. Such rules and laws are clearly there, no more clearly than in the case of the increasing amount of international law to do with protecting the environment. But this has been so for a very long time. There is nothing new in the emergence of co-operation to protect the environment. What the realist can still insist on is that these rules which are accepted by countries are so for prudential reasons. That is, it is in their interests to accept rules and regulations and to get others to accept them and stick by them because it is only in this way that the benefits to that country can come. If a country does not want pollution x to come into it from other countries via the atmosphere, then that means other countries must stop or reduce their production of x. But just as the motive for accepting agreements and doing what one can to get other countries to do what will give one the benefit is national self-interest, so would the motive be if that country no longer perceived there to be a benefit from their continuing to comply, or it decided to engage secretly in a practice in contravention of the regulation. It is rational to be a 'free rider'.

As we saw in the last chapter, from the sceptical realist's point of view the commitment to development in a country is to be seen as part of the pursuit of the national interest. The language and rhetoric of 'sustainable development' is meant to be officially linked to what kinds of development are sustainable from a global point of view, that is, linked to what kinds of development are to be pursued sustainably compatible with the like efforts for all other countries. However the real concern, according to a realist, with development is a concern for maximal growth for that country itself. If more than a few citizens came to have concerns of a more global kind to do with the environment, that would certainly influence the way sustainable development was pursued, but that would still be the national interest, because it was based on the preferences of its citizens. In the real world any rich country is bound to seek to maintain its economic dominance in the global system and therefore to tolerate a very unequal global order. But he would not regard this as unjust, because at bottom these concepts do not really apply to the global arena. A parallel can be drawn with the way transnational companies operate. Like states they operate to promote their interests, in this case their economic interests, through the 'profit motive'. If the realist analysis applies to states, the same can be equally plausibly applied to such economic institutions.[4]

What about concerns for the distant future or for non-human life which are part of many environmental agendas? Like global ethical concerns, these cannot enter into a realist analysis directly, only via the interests

of the country's citizens, as expressed for instance through democratic procedures and preferences.

How can a relativist who says there are no duties to other human beings in other societies handle issues of environmental co-operation? Again he can observe that practices by other countries may affect how things go for his own country, and therefore may have reason to do what will conduce to patterns of activity in the world around him which are of benefit to his country and himself. But what happens elsewhere is of no direct ethical concern to him, since that is no more than part of the backcloth in which the morality in his society functions. He may recognise that other human beings will have similar concerns about having a clean environment and so on, and that they have a conception of 'good' of interest to them, but he will not recognise that ethically he has obligations owing to them, or they to him. Likewise, concern for future generations or for non-human life may or may not be part of in individual's or society's ethic. That is a contingent matter. But even if it is, it cannot be presented as an ethic applicable to all and to be accepted by all, because this is what the relativist denies.

My reasons for rejecting these positions have already been set out in Chapter 3 so I will not go over them again, except to make the following remarks. As elsewhere one has to recognise that the realist analysis at the level of description may be right about the typical motivation of states in their pursuit of environmental protection, their signing up to conventions and so on. But on the deeper issue of whether moral rules apply, the position seems much weaker. Here one needs to note that whatever the motives for compliance, the moral framework may still be valid. Many actions which are morally right are done from self-interested motives, but that does not make the moral description inappropriate. In any case one of the key considerations in the realist's position that there is no enforceability in the international arena needs to be considered carefully. Certainly there is no strict enforceability in the sense of a coercive world government making countries comply, but the procedures whereby international laws are monitored, sanctions applied in various ways and so on, amount to something very like enforcement in many areas, and certainly sufficient to guarantee fairly reliable expectations of compliance.

The relativist argument seems equally implausible, even on its own terms, given the nature of the environmental predicament we are in. Behind the relativist argument must lie some functionalist theory of how the values which are relative to different social groups arise. If one of the sources of agreement about values in a group is a sense that certain things need to be done to protect something which there is a common interest in the group to protect, then the perfect analogue for the development of

rules serving common goals is provided by the global environment. The need to protect the environment stems precisely from a common interest all people in all countries have. These common interests may not be fully recognised by all but from the point of view of a relativist who is aware of them, the argument for accepting some kind of common moral framework is surely plausible, give the relativist's own starting point. This of course is compatible with accepting a plurality of values in other areas of life.

B. INTERNATIONALISM/COMMUNITARIANISM

In many ways the internationalist 'morality of states' approach gives both a plausible account of what kinds of action need to be taken and also of the ethical rationale for doing so. In the society of states, each state is committed to maintaining and promoting its interests but within a framework of maintaining a society of states in which other states are enabled to do so. Because the primary emphasis is upon respecting each other's sovereignty and non-interference, states must not harm each other's interests or do what threatens international order. States will therefore have moral reason to take measures to protect the environment for three reasons. First, continued pressures on the environment may threaten international peace and security, like competition for water supplies or other scarce resources. Second, various kinds of action have damaging impacts on other countries like acid rain. Third, their interests which they collectively want to promote via international agreements are shaped increasingly by the interests which their citizens have in the environment in general and in future generations and the natural world. Once of course international agreements are entered into, then the principle of ***pacta sunt servanda*** applies, which means that states have ethical obligations to keep the agreements which they have accepted. That is, agreements and conventions may come to include international co-operation to protect the environment from ozone layer depletion, to cut back on $C0_2$ emissions and so on, and once entered into have moral force.

The development of environmental conventions and the increasing tendency for states to have to limit what they do to avoid unacceptable damage to other countries' environments illustrates how the international society of states, originally devoted to the liberal principle of a limited set of moral constraints on one another, has become gradually drawn into something more constraining, and indeed more linked to the common concerns of ordinary citizens. But still it is worth noting that those who support it still see the rationale officially in terms of the interests of states and what states agree to do to protect those interests.

Two further points need to be noted, First, international law, to do with the environment or anything else, acquires its moral force on this

view primarily from the fact that it is entered into, rather than the moral arguments or reasons which lie behind them. Indeed the reasons why states may enter into such conventions may be very complex, and may have little to do with moral goals at all. And insofar as they do reflect moral goals, these will be varied. Certainly how states define their interests will reflect in various ways the moral concerns of their citizens. Thus we could see emerging, and many might say this is already partly the case, that the actual thinking of citizens about the reasons for protecting the environment is increasingly global and cosmopolitan, but the way this is reflected is via the interests of states. That is, the content of ethical thought is cosmopolitan, but the form in which it is expressed is internationalist.

Second, the interests of a country, insofar as they are seen genuinely reflecting the interests of people rather than those of governments or rulers, are almost always understood as the interests of current citizens in it. So, insofar as there are ethical concerns which many have about future generations, non-human animals or indeed the rest of humanity, these are only reflected via the interests of those citizens. It is precisely this indirectness which many environmentally minded cosmopolitans object to, because whilst it is good that such perspectives are reflected at all, it is not good that they are seen as only lying in the background of justification rather than the foreground.

Communitarians approach issues to do with the environment in terms of the traditions and shared values and meanings found in the community. The ways the environment, which will tend to be the environment in their own geographical area, is protected and cared for will be understood in terms of how people in that society have responded to the environment. Stress may be placed, taking insights from the phenomenological tradition, on the 'idea' of the environment, not as something out there, but as 'a field of significance', that is something which 'surrounds' people as 'their' environment, their home, place or space which is charged with meaning far in excess of any physical area it is associated with.[5] Clearly the shared norms for responding to the environment will evolve as people learn how to cope with its changing parameters. All this is not to say that the communitarian has no concern about 'the environment' at a global level. Unless a communitarian also accepts a stronger relativist position, already discussed and criticised, there are a number of reasons why he or she can accept responsibility for the global environment and for taking measures to protect the environment elsewhere.

First, unless the communitarian is strongly relativist, he or she can accept a layer of obligations we have as human beings to one another with the values of community being additional to this, albeit often of

powerful significance. Second, communities, in recognising that other communities have like concerns about protecting their environments, will accept that ethical norms need to be accepted to allow them to do this as well, and thus to play a part in protecting the common source of different environments (Thompson 2001). This in effect is one of the sources for the morality of states approach which can be seen as protecting the various communities states represent. Third, it is of course entirely possible for the morality of a community to include as part of its own ethos a concern for beings who are not directly human members of the community, whether these be human beings elsewhere in the world, or future generations or non-human life.[6]

My main critical discussion of internationalism and communitarianism has been given elsewhere, but I want to focus on one issue here of relevance to the environmental issues we are considering. This issue has to do with both the contingency and indirectness of concerns for the environment. Yes, the morality of states may come to include many valuable measures to protect the environment through convention and so on, but if the moral obligations are a function of those conventions, this makes it contingent upon those conventions having been entered into. If the arguments given earlier in the chapter are valid, they are only reflected indirectly via people's interests, transmitted through governments to conventions. Yes, the community may well have internal to its traditions concerns for the environment of a wider kind, but communities do not have to have these traditions; it is contingent on those traditions, and if a society does not care much about future generations, animals or the rest of the world, these interests are simply not represented. Most environmental ethics like most cosmopolitanisms see these ways in which interests are represented as altogether too precarious and indirect. It must also be possible to assert these moral claims directly and in such a way that they make a difference to and challenge any conservative arguments of the form: 'This is acceptable because this is accepted', whether at the level of international norms or at the level of community. Apart from any theoretical issues here, there is an urgency about creating much stronger environmental norms both in the cultures of communities and the working practice of states. These cultures and practices are vital, but the arguments for creating them come from, and must come from, elsewhere.

C. COSMOPOLITANISM

The basic idea of cosmopolitanism is of course that of a global framework: all human beings now. Many cosmopolitans would also include non-human well-being into the equation, as well as future generations. But neither of these extensions is strictly required. That is, a cosmopolitan

could be strictly anthropocentric, on the grounds that only humans are the source of value - with possible extension to higher animals as bearers of sentience - or take a view, considered earlier, that future generations do not, either in theory or in practice, enter the moral arena for current decision-making. Is the converse possible? That is, is it possible for someone to have a nature-centred approach or a future-centred but not a global approach? This is possible but seems less plausible for the following reason. As noted earlier concern for future people in one's own country or for non-humans could be derived from the attachments, perhaps shared in the community, of current people (and this is consistent with a lack of interest in the rest of the world). But if future generations or non-human life are seen as having intrinsic value which we ought to respect (whether we feel attachment to them or not), then the kind of moral theory that makes them objects of moral concern must in consistency make present humans elsewhere objects of moral concern.

Does a cosmopolitan need to advocate extensive action to protect the environment and need to push people and governments to do a lot more than is generally being done to protect the environment? The answer is that a cosmopolitan need not do so, for two kinds of reason, one to do with a radically different reading of the 'facts' about the environment, the other a more moral-theoretical point.

First, any cosmopolitan could have a very optimistic view of the human prospect. An example of this is Julian Simon who in a number of works has argued that our situation is nothing like as dire as the doomsters make out and that by adjusting our practices and technologies we will find solutions to the problems which arise (Simon 1981; 1995). Part of this line of argument is to stress that in some sense humans are the 'ultimate resource' in that we can adapt and be 'resourceful' in responding to pressure on the environment. Such an argument does not deny that we need to make lots of particular adjustments, since clearly pollution does occur, resources do go short, animals do suffer, wildernesses are being reduced, and if we do not want these things to happen we need to take measures, but what we do not need are wholesale adjustments to the way we live or challenges to growth.[7] Sustainable development is indeed to be seen as sustainable economic growth. There is no reason to challenge the conception of quality of life and material abundance, now achieved largely in the North and sought after by the South. Technology can take care of the problems and create the conditions for producing future abundance.

Second, coupled with the more optimistic scenario, there is also a more theoretical position of an ethical kind linked to what I have earlier called the libertarian-minimalist approach. On this view what morality requires

of us is primarily that we respect other people's liberties, including economic liberties, and that we do not adopt an interventionist pro-activist approach. Yes, we need to avoid actively harming the environment for ourselves or others where clearly the chain of responsibility lies with us as significant cause, but there is no general duty of extensive co-operation to protect and enhance other people's environments. On the whole the libertarian thinker will want to downplay the negative indirect consequences of economic activity in affirming economic liberty, whereas other thinkers will see these indirect and contributory factors as being of central importance to the development of environmental responsibility.

Most cosmopolitans interested in the environment will however incline to a less optimistic reading of the human prospects and advocate a rather stronger claim about environmental responsibility. As such they will be highly critical of state practices and the general patterns of accepted values in many societies, especially affluent ones. The idea that development is to be seen as essentially growth will be challenged, both because it is unsustainable and because it involves a misguided understanding of well-being anyway. The point about sustainability needs to be stressed. From a cosmopolitan point of view, the sustainability of a country has to be seen in its global context: can a country's policies be sustained within a framework of other countries doing the same? It is not enough to ask: can my country's policies be sustained taken in isolation? We need to ask: ought it to be pursued consistent with the wider ethical framework? Generally a cosmopolitan view will require us to look very hard at policies with a view to answering the question: does this contribute to or avoid not impeding the overall global good ***vis-a-vis*** the environment?

Even if we retain the discourse of sustainable development, we have to ask just what conception of development we are assuming. Any talk of sustainability presupposes a set of things valued - material wealth, quality of life, the natural world, democracy or cultural diversity - which are worth sustaining or ought to be sustained (see e.g. Dobson 1988: ch. 1). Sustainability does not itself confer a value on anything, rather it presupposes a value or a set of values which, once the issue is made explicit, reveals disagreements and contestation (see e.g. Jacobs 1989; Lee, Holland & McNeill 2000).

There is not space here to develop these arguments further. The purpose of this book is not to spell out the full story which an acceptable cosmopolitanism would provide, but to chart the different positions and outline the main moves to be made. But it would be helpful to illustrate the kinds of international issues I have raised with one complex case.

IV. THE RAIN FOREST, OIL RESOURCES AND THE OCEAN BED: ENVIRONMENTAL SOVEREIGNTY OR COMMON HERITAGE OF MANKIND?

A cornerstone of the dominant paradigm of international relations is sovereignty. One aspect of sovereignty often claimed is something called environmental sovereignty, the right of a nation state to control the use of the natural resources within its territorial borders. The UN ***Declaration on the Right to Development*** (1986) asserts that all peoples have a right to self-determination which includes 'the exercise of their inalienable right to full sovereignty over all their natural wealth and resources' (UN 1986: art. 1.2). Since much of the natural wealth of the world is in the South, this may be a useful check in practice on attempts by those operating from the North to control it. But from a theoretical point of view, particularly one informed by ecological values, it is troubling. It is not at all clear if we adopt a global ethic, that morally, whatever its standing in international law, a country has a right to do just what it wants with its resources, if for instance its misuse of them had bad consequences for others outside that country.

Take for instance a tropical rain forest. Does a country like Brazil morally have a right to do what it will with it? There are many things to be said against the destruction of a rain forest from an environmental point of view. First let us look at typically human-centred concerns, like concern about the loss of genetic information through the relentless loss of species, or concern about the disturbance to global weather systems that destruction of much of it would cause, or regrets that we lose a significant arena of aesthetic appreciation of nature. Do these considerations override the rights of states and people to their own resources? In suggesting that they do, in principle, one must be careful to put the argument in context, otherwise it will seem like a Northern argument directed against the South, which it is not intended to be.

First, by the same token, it must stressed, the argument shows that resources like oil which a country like the USA comes to possess because they were bought on the international market would also be subject to the same proviso. Climate change, it is now generally recognised, will have serious negative effects globally, in rising sea levels, violent weather, desertification etc. The manner and extent of our use of oil seriously affects the global common good. Arguably the extensive use of fossil fuels by countries in the North, especially the USA, is far more damaging to the environment overall than what is done in the South. Indeed any resource taken from nature is subject to the question: is the use of this resource consistent with protecting the global environment (or indeed any other values accepted)? The rain forest simply stands out

as an example, because it is such a conspicuous example of a global resource.

Second, any argument directed at a country like Brazil to check a use of the environment, has to address the goals associated with that use like economic development, and, if appropriate, has to provide co-operation and assistance. The North cannot assert its rights in saying 'Stop' and not exercise its duties by helping in the stopping. Likewise if a country like China wants lots of fridges for its people, can we who have plenty of them simply say 'Stop' if that means using cheap CFC-emitting devices, without doing anything else?

What the two cases about the rainforest and oil illustrate is that, apart from the propriety of a global ethical standpoint from which to make judgements of appropriate or inappropriate use, the idea of ownership, whether by a person, an organisation, a people or a state, does not establish absolute rights of use and disposal. In what ways and how far environmental factors should restrict the rights to property is another issue that needs and receives attention. Linked to this is another: was Locke right to suppose that in 'mixing our labour' with natural materials we added 99 per cent of their value? (Locke 1960: ch. 5). From an ecological perspective this is highly questionable for a variety of reasons. But if Locke is wrong, then the right of property theory partly founded on it is also partly questioned.

Should then the Brazilian rainforest be seen, ethically, as on all fours with the resources of the deep-sea bed, the 'common heritage of mankind', to use the language of the UN Convention on the Law of the Sea of 1982 (UNCLOS)? Much effort was expended in the 1970s and early 1980s by the international community to agree on a convention on the use of the largest resource of the world - the oceans - to determine agreed territorial zones (the EEZs or exclusive economic zones), policies on quotas for husbanding and thus protecting the renewable resources of the ocean, but perhaps most critically future policies to do with the mineral wealth of the ocean bed. The concept of the 'common heritage of mankind' captured a certain global conception, and might in the future, if the conventions are followed with regard to future extensive mining operations, lead to an international fund being set up to hold the revenues from mineral extraction activities and to be used to help land-locked states with their development.

There is however an interesting paradox at the heart of this. In seeing the ocean bed and its stock as 'common heritage' there is an implied contrast in law to the non-common heritage, namely what each country has a right to in the way of natural resources geographically associated with it. But from a cosmopolitan point of view, at least one that is not libertarian in

conception, this is deeply troubling because it seems a contingent matter, in the sense of being morally irrelevant, what resources happen to be within and what outside conventionally agreed geographical areas, and what matters at bottom is that the resources of the world are there for the common good of all. Clearly property regimes are needed, but they have to be seen in context, as noted above.

However, this line of thought fails to take on board a deeper problem. Let us return for a moment to the tropical rain forest. What is wrong about destroying it? There are, as I implied earlier, biocentric reasons as well as human-centred reasons: the destruction of animal and plant life, the destruction of species and the wrecking of areas of wilderness of significance and thus failing to respect the integrity of the 'biotic community' are all ethically problematic, quite apart from human interests.

So we can restate our problem in this way: even if we think of the tropical rain forest as the 'common heritage of mankind' as opposed to, say, Brazil's exclusive resource, it still suggests that the natural world as a whole is there for the use of humankind as a whole. It repeats in different language the conception of nature as a bundle of resources for human use, or as Heidegger criticised it in his perceptive essay, ***The Question concerning Technology***, a 'standing reserve' (Heidegger 1977: 17). Of course we cannot avoid altogether thinking of the natural world as the supplier of the resources we all need, but the idea of common heritage/resources is for many environmentalists questionable, unless there is a proper corrective to the one-sidedness of it in terms of the importance of other kinds of relationship which we have towards the natural world. This illustrates a key general point. It is not enough to have a global ethic. It has to be the right kind.

NOTES

1. **For a subtle discussion about the relevance of the future and about the rational structure of prudence, see Nagel 1970: pt II.**
2. **See, for example, Magraw & Nickel 1990 for an interesting discussion of the realist approach. The international dimension is also explored in Dower 1983.**
3. **Cf. the doctrine of 'double effect' discussed in Chapter 6.**
4. **The issue of transnationals has been discussed more fully in Chapter 7.**
5. **See, for example, Cooper 1992, and reply by Dower 1994.**
6. **Many animals, particularly farm animals and domestic animals, enter more strongly into community anyway.**
7. **See Graham 1996: ch. 8 for a mildly sceptical account of many of the usual arguments for a radical response.**

10

THE ENVIRONMENT

A river tumbles through forested ravines and rocky gorges towards the sea. The state hydro-electricity commission sees the falling water as untapped energy. Building a dam across one of the gorges would provide three years of employment for a thousand people, and longer-term employment for twenty or thirty. The dam would store enough water to ensure that the state could economically meet its energy needs for the next decade. This would encourage the establishment of energy-intensive industry thus further contributing to employment and economic growth.

The rough terrain of the river valley makes it accessible only to the reasonably fit, but it is nevertheless a favoured spot for bushwalking. The river itself attracts the more daring whitewater rafters. Deep in the sheltered valleys are stands of rare Huon Pine, many of the trees being over a thousand years old. The valleys and gorges are home to many birds and animals, including an endangered species of marsupial mouse that has seldom been found outside the valley. There may be other rare plants and animals as well, but no one knows, for scientists are yet to investigate the region fully.

SHOULD the dam be built? This is one example of a situation in which we must choose between very different sets of values. The description is loosely based on a proposed dam on the Franklin River, in the southwest of Australia's island state, Tasmania – an account of the outcome can be found in Chapter 11, but I have deliberately altered some details, and the above description should be treated as a hypothetical case. Many other examples would have posed the choice between values equally well: logging virgin forests, building a paper mill that will release pollutants into coastal waters, or opening a new mine on the

edge of a national park. A different set of examples would raise related, but slightly different, issues: the use of products that contribute to the depletion of the ozone layer, or to the greenhouse effect; building more nuclear power stations; and so on. In this chapter I explore the values that underlie debates about these decisions, and the example I have presented can serve as a point of reference to these debates. I shall focus particularly on the values at issue in controversies about the preservation of wilderness because here the fundamentally different values of the two parties are most apparent. When we are talking about flooding a river valley, the choice before us is starkly clear.

In general we can say that those who favour building the dam are valuing employment and a higher per capita income for the state above the preservation of wilderness, of plants and animals (both common ones and members of an endangered species), and of opportunities for outdoor recreational activities. Before we begin to scrutinise the values of those who would have the dam build and those who would not, however, let us briefly investigate the origins of modern attitudes towards the natural world.

THE WESTERN TRADITION

Western attitudes to nature grew out of a blend of those of the Hebrew people, as represented in the early books of the Bible, and the philosophy of the ancient Greeks, particularly that of Aristotle. In contrast to some other ancient traditions, for example, those of India, both the Hebrew and the Greek traditions made human beings the centre of the moral universe – indeed not merely the centre, but very often, the entirety of the morally significant features of this world.

The biblical story of creation, in Genesis, makes clear the Hebrew view of the special place of human beings in the divine plan:

> And God said, Let us make man in our image, after our likeness: and let them have dominion over the fish of the sea, and over the fowl of the air, and over the earth, and over every creeping thing that creepeth upon the earth.
> So God created man in his own image, in the image of God created he him; male and female created he them.
> And God blessed them, and God said upon them, Be fruitful, and multiply, and replenish the earth, and subdue it; and have dominion over the fish of the sea and over the fowl of the air, and over every living thing that moveth upon the earth.

Today Christians debate the meaning of this grant of 'dominion'; and those concerned about the environment claim that it should be regarded not as a license to do as we will with other living things, but rather as a directive to look after them, on God's behalf, and be answerable to God for the way in which we treat them. There is, however, little justification in the text itself for such an interpretation; and given the example God set when he drowned almost every animal on earth in order to punish human beings for their wickedness, it is no wonder that people should think the flooding of a single river valley is nothing worth worrying about. After the flood there is a repetition of the grant of dominion in more ominous language: 'And the fear of you and the dread of you shall be upon every beast of the earth, and upon every fowl of the air, upon all that moveth upon the earth, and upon all the fishes of the sea; into your hands are they delivered.'

The implication is clear: to act in a way that causes fear and dread to everything that moves on the earth is not improper; it is, in fact, in accordance with a God-given decree.

The most influential early Christian thinkers had no doubts about how man's dominion was to be understood. 'Doth God care for oxen?' asked Paul, in the course of a discussion of an Old Testament command to rest one's ox on the sabbath, but it was only a rhetorical question – he took it for granted that the answer must be negative, and the command was to be explained in terms of some benefit to humans. Augustine shared

this line of thought; referring to stories in the New Testament in which Jesus destroyed a fig tree and caused a herd of pigs to drown, Augustine explained these puzzling incidents as intended to teach us that 'to refrain from the killing of animals and the destroying of plants is the height of superstition'.

When Christianity prevailed in the Roman Empire, it also absorbed elements of the ancient Greek attitude to the natural world. The Greek influence was entrenched in Christian philosophy by the greatest of the medieval scholastics, Thomas Aquinas, whose life work was the melding of Christian theology with the thought of Aristotle. Aristotle regarded nature as a hierarchy in which those with less reasoning ability exist for the sake of those with more:

> Plants exist for the sake of animals, and brute beasts for the sake of man – domestic animals for his use and food, wild ones (or at any rate most of them) for food and other accessories of life, such as clothing and various tools.
> Since nature makes nothing purposeless or in vain, it is undeniably true that she has made all animals for the sake of man.

In his own major work, the *Summa Theologica*, Aquinas followed this passage from Aristotle almost word for word, adding that the position accords with God's command, as given in Genesis. In his classification of sins, Aquinas has room only for sins against God, ourselves, or our neighbours. There is no possibility of sinning against non-human animals, or against the natural world.

This was the thinking of mainstream Christianity for at least its first eighteen centuries. There were gentler spirits, certainly, like Basil, John Chrysostom, and Francis of Assisi, but for most of Christian history they have had no significant impact on the dominant tradition. It is therefore worth emphasising the major features of this dominant Western tradition, because these features can serve as a point of comparison when we discuss different views of the natural environment.

According to the dominant Western tradition, the natural

world exists for the benefit of human beings. God gave human beings dominion over the natural world, and God does not care how we treat it. Human beings are the only morally important members of this world. Nature itself is of no intrinsic value, and the destruction of plants and animals cannot be sinful, unless by this destruction we harm human beings.

Harsh as this tradition is, it does not rule out concern for the preservation of nature, as long as that concern can be related to human well-being. Often, of course, it can be. One could, entirely within the limits of the dominant Western tradition, oppose nuclear power on the grounds that nuclear fuel, whether in bombs or power stations, is so hazardous to human life that the uranium is better left in the ground. Similarly, many arguments against pollution, the use of gases harmful to the ozone layer, the burning of fossil fuels, and the destruction of forests, could be couched in terms of the harm to human health and welfare from the pollutants, or the changes to the climate that will occur as a result of the use of fossil fuels and the loss of forest. The greenhouse effect – to take just one danger to our environment – threatens to bring about a rise in sea level that will inundate low-lying coastal areas. This includes the fertile and densely populated Nile delta in Egypt, and the Bengal delta region, which covers 80 per cent of Bangladesh and is already subject to violent seasonal storms that cause disastrous floods. The homes and livelihood of 46 million people are at risk in these two deltas alone. A rise in sea level could also wipe out entire island nations such as the Maldives, none of which is more than a metre or two above sea level. So it is obvious that even within a human-centred moral framework, the preservation of our environment is a value of the greatest possible importance.

From the standpoint of a form of civilisation based on growing crops and grazing animals, wilderness may seem to be a wasteland, a useless area that needs clearing in order to render it productive and valuable. There was a time when villages sur-

rounded by farmland seemed like oases of cultivation amongst the deserts of forest or rough mountain slopes. Now, however, a different metaphor is more appropriate: the remnants of true wilderness left to us are like islands amidst a sea of human activity that threatens to engulf them. This gives wilderness a scarcity value that provides the basis for a strong argument for preservation, even within the terms of a human-centred ethic. That argument becomes much stronger still when we take a long-term view. To this immensely important aspect of environmental values we shall now turn.

FUTURE GENERATIONS

A virgin forest is the product of all the millions of years that have passed since the beginning of our planet. If it is cut down, another forest may grow up, but the continuity has been broken. The disruption in the natural life cycles of the plants and animals means that the forest will never again be as it would have been, had it not been cut. The gains made from cutting the forest – employment, profits for business, export earnings, and cheaper cardboard and paper for packaging – are short-term benefits. Even if the forest is not cut, but drowned to build a dam to create electricity, it is likely that the benefits will last for only a generation or two: after that new technology will render such methods of generating power obsolete. Once the forest is cut or drowned, however, the link with the past has gone for ever. That is a cost that will be borne by every generation that succeeds us on this planet. It is for that reason that environmentalists are right to speak of wilderness as a 'world heritage'. It is something that we have inherited from our ancestors, and that we must preserve for our descendants, if they are to have it at all.

In contrast to many more stable, tradition-oriented human societies, our modern political and cultural ethos has great difficulty in recognising long-term values. Politicians are notorious for not looking beyond the next election; but even if they do,

they will find their economic advisers telling them that anything to be gained in the future should be discounted to such a degree as to make it easy to disregard the long-term future altogether. Economists have been taught to apply a discount rate to all future goods. In other words, a million dollars in twenty years is not worth a million dollars today, even when we allow for inflation. Economists will discount the value of the million dollars by a certain percentage, usually corresponding to the real long-term interest rates. This makes economic sense, because if I had a thousand dollars today I could invest it so that it would be worth more, in real terms, in twenty years. But the use of a discount rate means that values gained one hundred years hence rank very low, in comparison with values gained today; and values gained one thousand years in the future scarcely count at all. This is not because of any uncertainty about whether there will be human beings or other sentient creatures inhabiting this planet at that time, but merely because of the cumulative effect of the rate of return on money invested now. From the standpoint of the priceless and timeless values of wilderness, however, applying a discount rate gives us the wrong answer. There are some things that, once lost, no amount of money can regain. Thus to justify the destruction of an ancient forest on the grounds that it will earn us substantial export income is unsound, even if we could invest that income and increase its value from year to year; for no matter how much we increased its value, it could never buy back the link with the past represented by the forest.

This argument does not show that there can be no justification for cutting any virgin forests, but it does mean that any such justification must take full account of the value of the forests to the generations to come in the more remote future, as well as in the more immediate future. This value will obviously be related to the particular scenic or biological significance of the forest; but as the proportion of true wilderness on the earth dwindles, every part of it becomes significant, because the op-

portunities for experiencing wilderness become scarce, and the likelihood of a reasonable selection of the major forms of wilderness being preserved is reduced.

Can we be sure that future generations will appreciate wilderness? Perhaps they will be happier sitting in air-conditioned shopping malls, playing computer games more sophisticated than any we can imagine? That is possible. But there are several reasons why we should not give this possibility too much weight. First, the trend has been in the opposite direction: the appreciation of wilderness has never been higher than it is today, especially among those nations that have overcome the problems of poverty and hunger and have relatively little wilderness left. Wilderness is valued as something of immense beauty, as a reservoir of scientific knowledge still to be gained, for the recreational opportunities that it provides, and because many people just like to know that something natural is still there, relatively untouched by modern civilisation. If, as we all hope, future generations are able to provide for the basic needs of most people, we can expect that for centuries to come, they, too, will value wilderness for the same reasons that we value it.

Arguments for preservation based on the beauty of wilderness are sometimes treated as if they were of little weight because they are 'merely aesthetic'. That is a mistake. We go to great lengths to preserve the artistic treasures of earlier human civilisations. It is difficult to imagine any economic gain that we would be prepared to accept as adequate compensation for, for instance, the destruction of the paintings in the Louvre. How should we compare the aesthetic value of wilderness with that of the paintings in the Louvre? Here, perhaps, judgment does become inescapably subjective; so I shall report my own experiences. I have looked at the paintings in the Louvre, and in many of the other great galleries of Europe and the United States. I think I have a reasonable sense of appreciation of the

fine arts; yet I have not had, in any museum, experiences that have filled my aesthetic senses in the way that they are filled when I walk in a natural setting and pause to survey the view from a rocky peak overlooking a forested valley, or sit by a stream tumbling over moss-covered boulders set amongst tall tree-ferns, growing in the shade of the forest canopy. I do not think I am alone in this; for many people, wilderness is the source of the greatest feelings of aesthetic appreciation, rising to an almost spiritual intensity.

It may nevertheless be true that this appreciation of nature will not be shared by people living a century or two hence. But if wilderness can be the source of such deep joy and satisfaction, that would be a great loss. To some extent, whether future generations value wilderness is up to us; it is, at least, a decision we can influence. By our preservation of areas of wilderness, we provide an opportunity for generations to come, and by the books and films we produce, we create a culture that can be handed on to our children and their children. If we feel that a walk in the forest, with senses attuned to the appreciation of such an experience, is a more deeply rewarding way to spend a day than playing computer games, or if we feel that to carry one's food and shelter in a backpack for a week while hiking through an unspoiled natural environment will do more to develop character than watching television for an equivalent period, then we ought to encourage future generations to have a feeling for nature; if they end up preferring computer games, we shall have failed.

Finally, if we preserve intact the amount of wilderness that exists now, future generations will at least have the choice of getting up from their computer games and going to see a world that has not been created by human beings. If we destroy the wilderness, that choice is gone forever. Just as we rightly spend large sums to preserve cities like Venice, even though future generations conceivably may not be interested in such architectural treasures, so we should preserve wilderness even

though it is possible that future generations will care little for it. Thus we will not wrong future generations, as we have been wronged by members of past generations whose thoughtless actions have deprived us of the possibility of seeing such animals as the dodo, Steller's sea cow, or the thylacine, the Tasmanian marsupial 'tiger'. We must take care not to inflict equally irreparable losses on the generations to follow us.

Here, too, the effort to mitigate the greenhouse effect deserves the highest priority. For if by 'wilderness' we mean that part of our planet that is unaffected by human activity, perhaps it is already too late: there may be no wilderness left anywhere on our planet. Bill McKibben has argued that by depleting the ozone layer and increasing the amount of carbon dioxide in the atmosphere, we have already brought about the change encapsulated in the title of his book – *The End of Nature*: 'By changing the weather, we make every spot on earth man-made and artificial. We have deprived nature of its independence, and that is fatal to its meaning. Nature's independence is its meaning; without it there is nothing but us.'

This is a profoundly disturbing thought. Yet McKibben does not develop it in order to suggest that we may as well give up our efforts to reverse the trend. It is true that in one sense of the term, 'nature' is finished. We have passed a watershed in the history of our planet. As McKibben says, 'we live in a post-natural world'. Nothing can undo that; the climate of our planet is under our influence. We still have, however, much that we value in nature, and it may still be possible to save what is left.

Thus a human-centred ethic can be the basis of powerful arguments for what we may call 'environmental values'. Such an ethic does not imply that economic growth is more important than the preservation of wilderness; on the contrary, it is quite compatible with a human-centred ethic to see economic growth based on the exploitation of irreplaceable resources as something that brings gains to the present generation, and possibly the next generation or two, but at a price that will be paid by

every generation to come. But in the light of our discussion of speciesism in Chapter 3, it should also be clear that it is wrong to limit ourselves to a human-centred ethic. We now need to consider more fundamental challenges to this traditional Western approach to environmental issues.

IS THERE VALUE BEYOND SENTIENT BEINGS?

Although some debates about significant environmental issues can be conducted by appealing only to the long-term interests of our own species, in any serious exploration of environmental values a central issue will be the question of intrinsic value. We have already seen that it is arbitrary to hold that only human beings are of intrinsic value. If we find value in human conscious experiences, we cannot deny that there is value in at least some experiences of non-human beings. How far does intrinsic value extend? To all, but only, sentient beings? Or beyond the boundary of sentience?

To explore this question a few remarks on the notion of 'intrinsic value' will be helpful. Something is of intrinsic value if it is good or desirable *in itself*; the contrast is with 'instrumental value', that is, value as a means to some other end or purpose. Our own happiness, for example, is of intrinsic value, at least to most of us, in that we desire it for its own sake. Money, on the other hand, is only of instrumental value to us. We want it because of the things we can buy with it, but if we were marooned on a desert island, we would not want it. (Whereas happiness would be just as important to us on a desert island as anywhere else.)

Now consider again for a moment the issue of damming the river described at the beginning of this chapter. If the decision were to be made on the basis of human interests alone, we would balance the economic benefits of the dam for the citizens of the state against the loss for bushwalkers, scientists, and others, now and in the future, who value the preservation of

the river in its natural state. We have already seen that because this calculation includes an indefinite number of future generations, the loss of the wild river is a much greater cost than we might at first imagine. Even so, once we broaden the basis of our decision beyond the interests of human beings, we have much more to set against the economic benefits of building the dam. Into the calculations must now go the interests of all the non-human animals who live in the area that will be flooded. A few may be able to move to a neighboring area that is suitable, but wilderness is not full of vacant niches awaiting an occupant; if there is territory that can sustain a native animal, it is most likely already occupied. Thus most of the animals living in the flooded area will die: either they will be drowned, or they will starve. Neither drowning nor starvation are easy ways to die, and the suffering involved in these deaths should, as we have seen, be given no less weight than we would give to an equivalent amount of suffering experienced by human beings. This will significantly increase the weight of considerations against building the dam.

What of the fact that the animals will die, apart from the suffering that will occur in the course of dying? As we have seen, one can, without being guilty of arbitrary discrimination on the basis of species, regard the death of a non-human animal who is not a person as less significant than the death of a person, since humans are capable of foresight and forward planning in ways that non-human animals are not. This difference between causing death to a person and to a being who is not a person does not mean that the death of an animal who is not a person should be treated as being of no account. On the contrary, utilitarians will take into account the loss that death inflicts on the animals – the loss of all their future existence, and the experiences that their future lives would have contained. When a proposed dam would flood a valley and kill thousands, perhaps millions, of sentient creatures, these deaths should be given great importance in any assessment of the costs and benefits of

building the dam. For those utilitarians who accept the total view discussed in Chapter 4, moreover, if the dam destroys the habitat in which the animals lived, then it is relevant that this loss is a continuing one. If the dam is not built, animals will presumably continue to live in the valley for thousands of years, experiencing their own distinctive pleasures and pains. One might question whether life for animals in a natural environment yields a surplus of pleasure over pain, or of satisfaction over frustration of preferences. At this point the idea of calculating benefits becomes almost absurd; but that does not mean that the loss of future animal lives should be dismissed from our decision making.

That, however, may not be all. Should we also give weight, not only to the suffering and death of individual animals, but to the fact that an entire species may disappear? What of the loss of trees that have stood for thousands of years? How much – if any – weight should we give to the preservation of the animals, the species, the trees and the valley's ecosystem, independently of the interests of human beings – whether economic, recreational, or scientific – in their preservation?

Here we have a fundamental moral disagreement: a disagreement about what kinds of beings ought to be considered in our moral deliberations. Let us look at what has been said on behalf of extending ethics beyond sentient beings.

REVERENCE FOR LIFE

The ethical position developed in this book is an extension of the ethic of the dominant Western tradition. This extended ethic draws the boundary of moral consideration around all sentient creatures, but leaves other living things outside that boundary. The drowning of the ancient forests, the possible loss of an entire species, the destruction of several complex ecosystems, the blockage of the wild river itself, and the loss of those rocky gorges are factors to be taken into account only

in so far as they adversely affect sentient creatures. Is a more radical break with the traditional position possible? Can some or all of these aspects of the flooding of the valley be shown to have intrinsic value, so that they must be taken into account independently of their effects on human beings or non-human animals?

To extend an ethic in a plausible way beyond sentient beings is a difficult task. An ethic based on the interests of sentient creatures is on familiar ground. Sentient creatures have wants and desires. The question: 'What is it like to be a possum drowning?' at least makes sense, even if it is impossible for us to give a more precise answer than 'It must be horrible'. In reaching moral decisions affecting sentient creatures, we can attempt to add up the effects of different actions on all the sentient creatures affected by the alternative actions open to us. This provides us with at least some rough guide to what might be the right thing to do. But there is *nothing* that corresponds to what it is like to be a tree dying because its roots have been flooded. Once we abandon the interests of sentient creatures as our source of value, where do we find value? What is good or bad for nonsentient creatures, and why does it matter?

It might be thought that as long as we limit ourselves to living things, the answer is not too difficult to find. We know what is good or bad for the plants in our garden: water, sunlight, and compost are good; extremes of heat or cold are bad. The same applies to plants in any forest or wilderness, so why not regard their flourishing as good in itself, independently of its usefulness to sentient creatures?

One problem here is that without conscious interests to guide us, we have no way of assessing the relative weights to be given to the flourishing of different forms of life. Is a two-thousand-year-old Huon pine more worthy of preservation than a tussock of grass? Most people will say that it is, but such a judgment seems to have more to do with our feelings of awe for the age,