logical impact. Take the example of Biofuels which have been presented by some as a means of fuelling cars in a less environmentally destructive way. Yet this brings people and cars into direct competition over the most "efficient" (i.e. most profitable) use of land. Unfortunately, effective demand is on the side of cars as their owners usually live in the developed countries. This leads to a situation where land is turned from producing food to producing biofuels, the net effect of which is to reduce supply of food, increase its price and so produce an increased likelihood of starvation. It also gives more economic incentive to destroy rainforests and other fragile eco-systems in order to produce more biofuel for the market.

Green socialist John O'Neill simply states the obvious:

"[The] treatment of efficiency as if it were logically independent of distribution is at best misleading, for the determination of efficiency already presupposes a given distribution of rights ... [A specific outcome] is always relative to an initial starting point ... If property rights are changed so also is what is efficient. Hence, the opposition between distributional and efficiency criteria is misleading. Existing costs and benefits themselves are the product of a given distribution of property rights. Since costs are not independent of rights they cannot guide the allocation of rights. Different initial distributions entail differences in whose preferences are to count. Environmental conflicts are often about who has rights to environment goods, and hence who is to bear the costs and who is to bear the benefits ... Hence, environmental policy and resource decision-making cannot avoid making normative choices which include questions of resource distribution and the relationships between conflicting rights claims ... The monetary value of a 'negative externality' depends on social

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imposed upon them simply because of economic necessity and the pressure big business can inflict.

The first area to discuss is inequalities in wealth and income. Not all economic actors have equal resources. Corporations and the wealthy have far greater resources at their disposal and can spend millions of pounds in producing PR and advertising (propaganda), fighting court cases, influencing the political process, funding "experts" and think-tanks, and, if need be, fighting strikes and protests. Companies can use "a mix of cover-up, publicity campaigns and legal manoeuvres to continue operations unimpeded." They can go to court to try an "block more stringent pollution controls." [David Watson, Against the Megamachine, p. 56] Also while, in principle, the legal system offers equal protection to all in reality, wealthy firms and individuals have more resources than members of the general public. This means that they can employ large numbers of lawyers and draw out litigation procedures for years, if not decades.

This can be seen around us today. Unsurprisingly, the groups which bear a disproportionate share of environmental burdens are the poorest ones. Those at the bottom of the social hierarchy have less resources available to fight for their rights. They may not be aware of their rights in specific situations and not organised enough to resist. This, of course, explains why companies spend so much time attacking unions and other forms of collective organisation which change that situation. Moreover as well as being less willing to sue, those on lower income may be more willing to be bought-off due to their economic situation. After all, tolerating pollution in return for some money is more tempting when you are struggling to make ends meet.

Then there is the issue of effective demand. Simply put, allocation of resources on the market is based on money and not need. If more money can be made in, say, meeting the consumption demands of the west rather than the needs of local people then the market will "efficiently" allocate resources away from the latter to the former regardless of the social and eco-

During this discussion we have touched upon another key issue, namely how wealth can affect how environmental and other externalities are produced and dealt with in a capitalist system. Here we extend our critique by addressed an issue we have deliberately ignored until now, namely the distribution and wealth and its resulting economic power. The importance of this factor cannot be stressed too much, as "market advocates" at best downplay it or, at worse, ignore it or deny it exists. However, it plays the same role in environmental matters as it does in, say, evaluating individual freedom within capitalism. Once we factor in economic power the obvious conclusion is the market based solutions to the environment will result in, as with freedom, people selling it simply to survive under capitalism (as we discussed in section B.4, for example).

It could be argued that strictly enforcing property rights so that polluters can be sued for any damages made will solve the problem of externalities. If someone suffered pollution damage on their property which they had not consented to then they could issue a lawsuit in order to get the polluter to pay compensation for the damage they have done. This could force polluters to internalise the costs of pollution and so the threat of lawsuits can be used as an incentive to avoid polluting others.

While this approach could be considered as part of any solution to environmental problems under capitalism, the sad fact is it ignores the realities of the capitalist economy. The key phrase here is "not consented to" as it means that pollution would be fine if the others agree to it (in return, say, for money). This has obvious implications for the ability of capitalism to reduce pollution. For just as working class people "consent" to hierarchy within the workplace in return for access to the means of life, so to would they "consent" to pollution. In other words, the notion that pollution can be stopped by means of private property and lawsuits ignores the issue of class and economic inequality. Once these are factored in, it soon becomes clear that people may put up with externalities

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lution). That this happens so consistently should not come as too great a surprise, given that the theory was invented to justify the appropriation of the fruits of the worker's labour by the property owner (see section B.4.2). Why should we be surprised that this is now being used to appropriate the rights of individuals to a clean environment and turn it into yet another means of expropriating them from their birthrights?

### E.3.2 How does economic power contribute to the ecological crisis?

So far in this section we have discussed why markets fail to allocate environmental resources. This is due to information blocks and costs, lack of fully internalised prices (externalities) and the existence of public goods. Individual choices are shaped by the information available to them about the consequences of their actions, and the price mechanism blocks essential aspects of this and so information is usually partial at best within the market. Worse, it is usually distorted by advertising and the media as well as corporate and government spin and PR. Local knowledge is undermined by market power, leading to unsustainable practices to reap maximum short term profits. Profits as the only decision making criteria also leads to environmental destruction as something which may be ecologically essential may not be economically viable. All this means that the price of a good cannot indicate its environmental impact and so that market failure is pervasive in the environmental area. Moreover, capitalism is as unlikely to produce their fair distribution of environmental goods any more than any other good or resource due to differences in income and so demand (particularly as it takes the existing distribution of wealth as the starting point). The reality of our environmental problems provides ample evidence for this analysis.

as it is unlikely that corporations would fund policies which would result in more costs for themselves and less access to valuable natural resources. As free market environmentalism is premised on economic solutions to ecological problems and assumes that economic agents will act in ways which maximise their own benefit, such an obvious conclusion should come naturally to its advocates. For some reason, it does not.

Ultimately, privatising nature rests on the ridiculous notion that a clean environment is a privilege which we must buy rather than a right. Under "free market environmentalism" private property is assumed to be the fundamental right while there is no right to a clean and sustainable environment. In other words, the interests of property owners are considered the most important factor and the rest of us are left with the possibility of asking them for certain environmental goods which they may supply if they make a profit from so doing. This prioritisation and categorisation is by no means obvious and uncontroversial. Surely the right to a clean and liveable environment is more fundamental than those associated with property? If we assume this then the reduction of pollution, soil erosion, and so forth are not goods for which we must pay but rather rights to which we are entitled. In other words, protecting species and ecosystem as well as preventing avoidable deaths and illnesses are fundamental issues which simply transcend the market. Being asked to put a price on nature and people is, at best, meaningless, or, at worse, degrading. It suggests that the person simply does not understand why these things are important.

But why should we be surprised? After all, private property bases itself on the notion that we must buy access to land and other resources required for a fully human life. Why should a clean environment and a healthy body be any different? Yet again, we see the derived rights (namely private property) trumping the fundamental base right (namely the right of self-ownership which should automatically exclude harm by pol-

# Section E: What do anarchists think causes ecological problems?

This section of the FAQ expands upon section D.4 ("What is the relationship between capitalism and the ecological crisis?") in which we indicated that since capitalism is based upon the principle of "grow or die," a "green" capitalism is impossible. By its very nature capitalism must expand, creating new markets, increasing production and consumption, and so invading more ecosystems, using more resources, and upsetting the interrelations and delicate balances that exist with ecosystems. We have decided to include a separate section on this to stress how important green issues are to anarchism and what a central place ecology has in modern anarchism.

Anarchists have been at the forefront of ecological thinking and the green movement for decades. This is unsurprisingly, as many key concepts of anarchism are also key concepts in ecological thought. In addition, the ecological implications of many anarchist ideas (such as decentralisation, integration of industry and agriculture, and so forth) has meant that anarchists have quickly recognised the importance of ecological movements and ideas.

Murray Bookchin in particular has placed anarchist ideas at the centre of green debate as well as bringing out the links anarchism has with ecological thinking. His eco-anarchism (which he called **social ecology**) was based on emphasising the **social** nature of the ecological problems we face. In such classic works as **Post-Scarcity Anarchism**, **Toward an Ecological Society** and **The Ecology of Freedom** he has consistently argued that humanity's domination of nature is the result of domination **within** humanity itself.

However, anarchism has always had an ecological dimension. As Peter Marshall notes in his extensive overview of ecological thought, ecologists "find in Proudhon two of their most cherished social principles: federalism and decentralisation." He "stands as an important forerunner of the modern ecological movement for his stress on the close communion between humanity and nature, for his belief in natural justice, for his doctrine of

ronmental impact will really be. Such projects, needless to say, will almost always have powerful economic interests behind them and will seek to ensure that "development" which fosters economic growth is pursued. This should be unsurprising. If we assume, as "market advocates" do, that state officials seek to further their own interests then classes with the most economic wealth are most likely to be able to do that the best. That the state will reflect the interests of those with most private property and marginalise the property-less should, therefore, come as no surprise.

Yet the state is not immune to social pressure from the general public or the reality of environmental degradation. This is proved, in its own way, by the rise of corporate PR, lobbying and think-tanks into multi-million pound industries. So while the supporters of the market stress its ability to change in the face of consumer demand, their view of the alternatives is extremely static and narrow. They fail, unsurprisingly, to consider the possibility of alternative forms of social organisation. Moreover, they also fail to mention that popular struggles can influence the state by means of direct action. For them, state officials will always pursue their own private interests, irrespective of popular pressures and social struggles (or, for that matter, the impact of corporate lobbying). While it is possible that the state will favour specific interests and policies, it does not mean that it cannot be forced to consider wider ones by the general public (until such time as it can be abolished, of course).

As we discussed in section D.1.5, the fact the state can be pressured by the general public is precisely why certain of its secondary functions have been under attack by corporations and the wealthy (a task which their well-funded think-tanls provide the rationales for). If all this is the case (and it is), then why expect cutting out the middle-person by privatising nature to improve matters? By its own logic, therefore, privatising nature is hardly going to produce a better environment

Corporations and firms, rather than citizens or environmentalists, will have the choice about whether to pollute (and pay the charges or buy credits to do so)." [Sharon Beder, Global Spin, p. 104]

The surreal notion of "too much" clean environment does indicate another key problem with this approach, namely its confusion of need and demand with effective demand. The fact is that people may desire a clean environment, but they may not be able to afford to pay for it on the market. In a similar way, there can be "too much" food while people are starving to death simply because people cannot afford to pay for it (there is no effective demand for food, but an obvious pressing need). Much the same can be said of environment goods. A lack of demand for a resource today does not mean it is not valued by individuals nor does it mean that it will not be valued in the future. However, in the short-term focus produced by the market such goods will be long-gone, replaced by more profitable investments.

The underlying assumption is that a clean environment is a luxury which we must purchase from property owners rather than a right we have as human beings. Even if we assume the flawed concept of self-ownership, the principle upon which defenders of capitalism tend to justify their system, the principle should be that our ownership rights in our bodies excludes it being harmed by the actions of others. In other words, a clean environment should be a basic right for all. Privatising the environment goes directly against this basic ecological insight.

The state's environmental record has often been terrible, particularly as its bureaucrats have been influenced by private interest groups when formulating and implementing environmental policies. The state is far more likely to be "captured" by capitalist interests than by environmental groups or even the general community. Moreover, its bureaucrats have all too often tended to weight the costs and benefits of specific projects in such a way as to ensure that any really desired ones will go ahead, regardless of what local people want or what the envi-

federalism and for his insight that liberty is the mother and not the daughter of order." [Nature's Web, p. 307 and p. 308] For Proudhon, a key problem was that people viewed the land as "something which enables them to levy a certain revenue each year. Gone is the deep feeling for nature." People "no longer love the soil. Landowners sell it, lease it, divide it into shares, prostitute it, bargain with it and treat it as an object of speculation. Farmers torture it, violate it, exhaust it and sacrifice it to their impatient desire for gain. They never become one with it." We "have lost our feeling for nature." [Selected Writings of Pierre-Joseph Proudhon, p. 261]

Other precursors of eco-anarchism can be found in Peter Kropotkin's writings. For example, in his classic work Fields, Factories and Workshops, Kropotkin argued the case for "small is beautiful" 70 years before E. F. Schumacher coined the phase, advocating "a harmonious balance between agriculture and industry. Instead of the concentration of large factories in cities, he called for economic as well as social decentralisation, believing that diversity is the best way to organise production by mutual co-operation. He favoured the scattering of industry throughout the country and the integration of industry and agriculture at the local level." His vision of a decentralised commonwealth based on an integration of agriculture and industry as well as manual and intellectual work has obvious parallels with much modern green thought, as does his stress on the need for appropriate levels of technology and his recognition that the capitalist market distorts the development, size and operation of technology and industry. Through his investigations in geography and biology, Kropotkin discovered species to be interconnected with each other and with their environment. Mutual Aid is the classic source book on the survival value of cooperation within species which Kropotkin regarded as an important factor of evolution, arguing that those who claim competition within and between species is the chief or only factor have distorted Darwin's work. All this ensures that Kropotkin

is "a great inspiration to the modern ecological movement." [Marshall, **Op**. Cit., p. 311 and p. 312]

As well as Kropotkin's work, special note must be made of French anarchist Elisee Reclus. As Clark and Martin note, Reclus introduced "a strongly ecological dimension into the tradition of anarchist and libertarian social theory". He made "a powerful contribution to introducing this more ecological perspective into anarchist thought," of "looking beyond the project of planetary domination and attempting to restore humanity to its rightful place within, rather than above, nature." Reclus, "much more than Kropotkin, introduced into anarchist theory themes that were later developed in social ecology and eco-anarchism." [John P. Clark and Camille Martin (ed.), Anarchy, Geography, Modernity, p. 19] For example, in 1866 Reclus argued as follows:

"Wild nature is so beautiful. Is it really necessary for man, in seizing it, to proceed with mathematical precision in exploiting each new conquered domain and then mark his possession with vulgar constructions and perfectly straight boundaries? If this continues to occur, the harmonious contrasts that are one of the beauties of the earth will soon give way to depressing uniformity ...

"The question of knowing which of the works of man serves to beautify and which contributes to the degradation of external nature can seem pointless to so-called practical minds; nevertheless, it is a matter of the greatest importance. Humanity's development is most intimately connected with the nature that surrounds it. A secret harmony exists between the earth and the peoples whom it nourishes, and when reckless societies allow themselves to meddle with that which creates the beauty of their domain,

the current system of state regulation. Terry L. Anderson and Donald R. Leal put it this way:

"If markets produce 'too little' clean water because dischargers do not have to pay for its use, then political solutions are equally likely to produce 'too much' clean water because those who enjoy the benefits do not pay the cost ... Just as pollution externalities can generate too much dirty air, political externalities can generate too much water storage, clear-cutting, wilderness, or water quality ... Free market environmentalism emphasises the importance of market process in determining optimal amounts of resource use." [Free Market Environmentalism, p. 23]

What kind of environmentalism considers the possibility of "too much" clean air and water? This means, ironically, that from the perspective of free-market "environmentalism" that certain ecological features may be over-protected as a result of the influence of non-economic goals and priorities. Given that this model is proposed by many corporate funded think tanks, it is more than likely that their sponsors think there is "too much" clean air and water, "too much" wilderness and "too much" environmental goods. In other words, the "optimal" level of pollution is currently too low as it doubtful that corporations are seeking to increase their costs of production by internalising even more externalities.

Equally, we can be sure that "too much" pollution "is where the company polluting the water has to pay too much to clean up the mess they make. It involves a judgement that costs to the company are somehow synonymous with costs to the community and therefore can be weighed against benefits to the community." Such measures "grant the highest decision-making power over environmental quality to those who currently make production decisions. A market system gives power to those most able to pay.

court action (particularly if they feel that potential victims do not have the time or resources available to sue). This kind of decision was most infamously done by General Motors when it designed its Malibu car. The company estimated that the cost of court awarded damages per car was less than ensuring that the car did not explode during certain kinds of collusion and so allowed people to die in fuel-fed fires rather than alter the design. Unfortunately for GM, the jury was horrified (on appeal, the damages were substantially reduced). [Joel Bakan, The Corporation, pp. 61–5]

So this means that companies seeking to maximise profits have an incentive to cut safety costs on the assumption that the risk of so doing will be sufficiently low to make it worthwhile and that any profits generated will more than cover the costs of any trial and damages imposed. As eco-anarchist David Watson noted in regards to the Prudhoe Bay disaster, it "should go without saying that Exxon and its allies don't try their best to protect the environment or human health. Capitalist institutions produce to accumulate power and wealth, not for any social good. Predictably, in order to cut costs, Exxon steadily dismantled what emergency safeguards it had throughout the 1980s, pointing to environmental studies showing a major spill as so unlikely that preparation was unnecessary. So when the inevitable came crashing down, the response was complete impotence and negligence." [Against the Megamachine, p. 57] As such, it cannot be stressed too much that the only reason companies act any different (if and when they do) is because outside agitators people who understand and cared about the planet and people more than they did about company profits — eventually forced them to.

So given all this, it is clear that privatising nature is no guarantee that environmental problems will be reduced. In fact, it is more likely to have the opposite effect. Even its own advocates suggest that their solution may produce **more** pollution than

they always end up regretting it." [quoted by Clark and Martin, **Op**. Cit., pp. 125–6]

"Man," Reclus says, can find beauty in "the intimate and deeply seated harmony of his work with that of nature." Like the eco-anarchists a century later, he stressed the social roots of our environmental problems arguing that a "complete union of Man with Nature can only be effected by the destruction of the frontiers between castes as well as between peoples." He also indicated that the exploitation of nature is part and parcel of capitalism, for "it matters little to the industrialist ... whether he blackens the atmosphere with fumes ... or contaminates it with foul-smelling vapours." "Since nature is so often desecrated by speculators precisely because of its beauty," Reclus argued, "it is not surprising that farmers and industrialists, in their own exploitative endeavours, fail to consider whether they contribute to defacing the land." The capitalist is "concerned not with making his work harmonious with the landscape." [quoted by Clark and Martin, Op. Cit., p. 28, p. 30, p. 124 and p. 125] Few modern day eco-anarchists would disagree.

So, while a specifically ecological anarchism did not develop until the revolutionary work done by Murray Bookchin from the 1950's onwards, anarchist theory has had a significant "proto-green" content since at least the 1860s. What Bookchin and writers like him did was to make anarchism's implicit ecological aspects explicit, a work which has immensely enriched anarchist theory and practice.

In addition to pointing out the key role ecology plays within anarchism, this section is required to refute some commonly proposed solutions to the ecological problems we face. While it is wonderful that green ideas have becoming increasingly commonplace, the sad fact is that many people have jumped on the green bandwagon whose basic assumptions and practices are deeply anti-ecological. Thus we find fascists expounding on their environmental vision or defenders of capitalism

proposing "ecological" solutions based on expanding private property rights. Similarly, we find the notion of green consumerism raised as viable means of greening the planet (rather than as an addition to social struggle) or a focus on symptoms (such as population growth) rather than root causes. This section refutes many such flawed suggestions.

A key concept to remember in our discussion is that between environmentalism and ecology. Following Bookchin, eco-anarchists contrast their ideas with those who seek to reform capitalism and make it more green (a position they term "environmentalism" rather than ecology). The latter "focus on specific issues like air and water pollution" while ignoring the social roots of the problems they are trying to solve. In other words, their outlook "rest[s] on an instrumental, almost engineering approach to solving ecological dislocations. To all appearances, they wanted to adapt the natural world to the needs of the existing society and its exploitative, capitalist imperatives by way of reforms that minimise harm to human health and well-being. The much-needed goals of formulating a project for radical social change and for cultivating a new sensibility toward the natural world tended to fall outside the orbit of their practical concerns." Eco-anarchists, while supporting such partial struggles, stress that "these problems originate in a hierarchical, class, and today, competitive capitalist system that nourishes a view of the natural world as a mere agglomeration of 'resources' for human production and consumption." [The Ecology of Freedom, pp. 15-6] This means that while some kind of environmentalism may be possible under capitalism or some other authoritarian system, an ecological approach is impossible. Simply put, the concerns of ecology cannot be squeezed into a hierarchical perspective or private property. Just as an eco-system cannot be commanded, divided and enclosed, nor can a truly ecological vision. Attempts to do so will impoverish both.

As we discuss in the next section, for anarchists the root cause of our ecological problems is hierarchy in society comeverything else is assigned a value within the market economy.

"However, apart from the fact that there is no way to put an 'objective' value on most of the elements that constitute the environment (since they affect a subjective par excellence factor, i.e. the quality of life), the solution suggested ... implies the extension of the marketisation process to the environment itself. In other words, it implies the assignment of a market value to the environment ... so that the effects of growth onto it are 'internalised' ... The outcome of such a process is easily predictable: the environment will either be put under the control of the economic elites that control the market economy (in case an actual market value be assigned to it) or the state (in case an imputed value is only possible). In either case, not only the arrest of the ecological damage is - at least - doubtful, but the control over Nature by elites who aim to dominate it — using 'green' *prescriptions this time* — *is perpetuated.*" [Takis Fotopoulous, "Development or Democracy?", pp. 57-92, Society and Nature, No. 7, pp. 79–80]

Another key problem with using private property in regard to environmental issues is that they are almost always reactive, almost never proactive. Thus the pollution needs to have occurred before court actions are taken as strict liability generally provides after-the-fact compensation for injuries received. If someone does successfully sue for damages, the money received can hardly replace an individual or species or eco-system. At best, it could be argued that the threat of being sued will stop environmentally damaging activities but there is little evidence that this works. If a company concludes that the damages incurred by court action is less than the potential profits to be made, then they will tolerate the possibility of

sentative branch of the state and so turning environmental policy decisions over to them will hardly ensure that public concerns are at the foremost of any decision (such a move would also help undermine trial by jury as juries often tend to reward sizeable damages against corporations in such cases, a factor corporations are all too aware of).

This brings us to the problem of actually proving that the particles of a specific firm has inflicted a specific harm on a particular person and their property. Usually, there are multiple firms engaging in polluting the atmosphere and it would be difficult, if not impossible, to legally establish the liability of any particular firm. How to identify which particular polluter caused the smog which damaged your lungs and garden? Is it an individual company? A set of companies? All companies? Or is it transportation? In which case, is it the specific car which finally caused your cancer or a specific set of car uses? Or all car users? Or is it the manufacturers for producing such dangerous products in the first place?

Needless to say, even this possibility is limited to the current generation. Pollution afflicts future generations as well and it is impossible for their interests to be reflected in court for "future harm" is not the question, only present harm counts. Nor can non-human species or eco-systems sue for damage, only their owners can and, as noted above, they may find it more profitable to tolerate (or even encourage) pollution than sue. Given that non-owners cannot sue as they are not directly harmed, the fate of the planet will rest in the hands of the property-owning class and so the majority are effectively dispossessed of any say over their environment beyond what their money can buy. Transforming ecological concerns into money ensures a monopoly by the wealthy few:

"In other words, the environment is assumed to be something that can be 'valued,' in a similar way that

pounded by a capitalist economy. For anarchists, the notion of an ecological capitalism is, literally, impossible. Libertarian socialist Takis Fotopoulous has argued that the main reason why the project of "greening" capitalism is just a utopian dream "lies in a fundamental contradiction that exists between the logic and dynamic of the growth economy, on the one hand, and the attempt to condition this dynamic with qualitative interests" on the other. ["Development or Democracy?", pp. 57–92, Society and Nature, No. 7, p. 82] Green issues, like social ones, are inherently qualitative in nature and, as such, it is unsurprising that a system based on profit would ignore them.

Under capitalism, ethics, nature and humanity all have a price tag. And that price tag is god. This is understandable as every hierarchical social system requires a belief-system. Under feudalism, the belief-system came from the Church, whereas under capitalism, it pretends to come from science, whose biased practitioners (usually funded by the state and capital) are the new priesthood. Like the old priesthoods, only those members who produce "objective research" become famous and influential - "objective research" being that which accepts the status quo as "natural" and produces what the elite want to hear (i.e. apologetics for capitalism and elite rule will always be praised as "objective" and "scientific" regardless of its actual scientific and factual content, the infamous "bell curve" and Malthus's "Law of Population" being classic examples). More importantly, capitalism needs science to be able to measure and quantify everything in order to sell it. This mathematical faith is reflected in its politics and economics, where quantity is more important than quality, where 5 votes are better than 2 votes, where \$5 is better than \$2. And like all religions, capitalism needs sacrifice. In the name of "free enterprise," "economic efficiency," "stability" and "growth" it sacrifices individuality, freedom, humanity, and nature for the power and profits of the few.

Understanding the social roots of the problems we face is the key. Many greens attack what they consider the "wrong ideas" of modern society, its "materialistic values" and counter-pose **new** ideas, more in tune with a green society. This approach, however, misses the point. Ideas and values do not "just happen", but are the **product** of a given set of social relationships and the struggles they produce. This means that it is not just a matter of changing our values in a way that places humanity in harmony with nature (important though that is), but also of understanding the social and structural origins of the ecological crisis. Ideas and values do need to be challenged, but unless the authoritarian social relationships, hierarchy and inequalities in power (i.e. what produces these values and ideas) are also challenged and, more importantly, changed an ecological society is impossible. So unless other Greens recognise that this crisis did not develop in a social vacuum and is not the "fault" of people as **people** (as opposed to people in a hierarchical society), little can be done root out the systemic causes of the problems that we and the planet face.

Besides its alliance with the ecology movement, ecoanarchism also finds allies in the feminist and peace movements, which it regards, like the ecology movement, as implying the need for anarchist principles. Thus eco-anarchists think that global competition between nation-states is responsible not only for the devouring of nature but is also the primary cause of international military tensions, as nations seek to dominate each other by military force or the threat thereof. As international competition becomes more intense and weapons of mass destruction spread, the seeds are being sown for catastrophic global warfare involving nuclear, chemical, and/or biological weapons. Because such warfare would be the ultimate ecological disaster, eco-anarchism and the peace movement are but two aspects of the same basic project. Similarly, ecoanarchists recognise that domination of nature and male domination of women have historically gone hand in hand, so that

clean-up activities saved? At best, you could factor this in by assuming that the wage premium of workers in dangerous occupations reflects it but a human life is, surely, worth more than the wages required to attract workers into dangerous working conditions. Wages are **not** an objective measure of the level of environmental risks workers are willing to tolerate as they are influenced by the overall state of the economy, the balance of class power and a whole host of other factors. Simply put, fear of unemployment and economic security will ensure that workers tolerate jobs that expose them and their communities to high levels of environmental dangers.

Economic necessity drives decisions in the so-called "free" market (given a choice between clean air and water and having a job, many people would choose the latter simply because they have to in order to survive). These factors can only be ignored which means that environmental values cannot be treated like commodities and market prices cannot accurately reflect environmental values. The key thing to remember is that the market does not meet demand, it meets effective demand (i.e. demands backed up with money). Yet people want endangered species and eco-systems protected even if there is no effective demand for them on the market (nor could be). We will return to this critical subject in the next section.

Then there are the practicalities of privatising nature. How, for example, do we "privatise" the oceans? How do we "privatise" whales and sharks in order to conserve them? How do we know if a whaling ship kills "your" whale? And what if "your" shark feeds on "my" fish? From whom do we buy these resources in the first place? What courts must be set up to assess and try crimes and define damages? Then there are the costs of defining and enforcing private rights by means of the courts. This would mean individual case-by-case adjudications which increase transaction costs. Needless to say, such cases will be influenced by the resources available to both sides. Moreover, the judiciary is almost always the least accountable and repre-

ences (as expressed in the market) are limited by lower budgets.

Ultimately, market demand can change without the underlying demand for a specific good changing. For example, since the 1970s the real wages of most Americans have stagnated while inequality has soared. As a result, fewer households can afford to go on holidays to wilderness areas or buy more expensive ecologically friendly products. Does that imply that the people involved now value the environment less simply because they now find it harder to make ends meet? Equally, if falling living standards force people to take jobs with dangerous environmental consequences does than really provide an accurate picture of people's desires? It takes a giant leap of faith (in the market) to assume that falling demand for a specific environmental good implies that reducing environmental damage has become less valuable to people. Economic necessity may compel people to act against their best impulses, even strongly felt natural values (an obvious example is that during recessions people may be more willing to tolerate greenhouse gas emissions simply because they need the work).

Nor can it be claimed that all the relevant factors in ecological decision making can take the commodity form, i.e. be given a price. This means that market prices do not, in fact, actually reflect people's environmental values. Many aspects of our environment simply cannot be given a market price (how can you charge people to look at beautiful scenery?). Then there is the issue of how to charge a price which reflects the demand of people who wish to know that, say, the rainforest or wilderness exists and is protected but who will never visit either? Nor are future generations taken into account by a value that reflects current willingness to pay and might not be consistent with long-term welfare or even survival. And how do you factor in the impact a cleaner environment has on protecting or extending human lives? Surely a healthy environment is worth much more than simply lost earnings and the medical bills and

eco-feminism is yet another aspect of eco-anarchism. Since feminism, ecology, and peace are key issues of the Green movement, anarchists believe that many Greens are implicitly committed to anarchism, whether they realise it or not, and hence that they should adopt anarchist principles of direct action rather than getting bogged down in trying to elect people to state offices.

Here we discuss some of the main themes of eco-anarchism and consider a few suggestions by non-anarchists about how to protect the environment. In section E.1, we summarise why anarchists consider why a green society cannot be a capitalist one (and vice versa). Section E.2 presents a short overview of what an ecological society would be like. Section E.3 refutes the false capitalist claim that the answer to the ecological crisis is to privatise everything while section E.4 discusses why capitalism is anti-ecological and its defenders, invariably, antigreen. Then we indicate why green consumerism is doomed to failure in section E.5 before, in section E.6, refuting the myth that population growth is a **cause** of ecological problems rather than the **effect** of deeper issues.

Obviously, these are hardly the end of the matter. Some tactics popular in the green movement are shared by others and we discuss these elsewhere. For example, the issue of electing Green Parties to power will be addressed in section J.2.4 ("Surely voting for radical parties will be effective?") and so will be ignored here. The question of "single-issue" campaigns (like C.N.D. and Friends of the Earth) will be discussed in section J.1.4. Remember that eco-anarchists, like all anarchists, take a keen interest in many other issues and struggles and just because we do not discuss something here does not mean we are indifferent to it.

For anarchists, unless we resolve the underlying contradictions within society, which stem from domination, hierarchy and a capitalist economy, ecological disruption will continue and grow, putting our Earth in increasing danger. We need to

resist the system and create new values based on quality, not quantity. We must return the human factor to our alienated society before we alienate ourselves completely off the planet.

Peter Marshall's **Nature's Web** presents a good overview of all aspects of green thought over human history from a libertarian perspective, including excellent summaries of such anarchists as Proudhon, Kropotkin and Bookchin (as well as libertarian socialist William Morris and his ecologically balanced utopia **News from Nowhere**).

its economic ones. Overall, regardless of the wider ecological importance of a specific eco-system or species it is likely that their owner will prioritise short-term profits over environmental concerns. It should go without saying that threatened or endangered eco-systems and species will be lost under a privatised regime as it relies on the willingness of profit-orientated companies and individuals to take a loss in order to protect the environment.

Overall, advocates of market based environmentalism need to present a case that all plants, animals and eco-systems are valuable commodities in the same way as, say, fish are. While a case for market-based environmentalism can be made by arguing that fish have a market price and, as such, owners of lakes, rivers and oceans would have an incentive to keep their waters clean in order to sell fish on the market, the same cannot be said of all species and habitats. Simply put, not all creatures, plants and eco-systems with an ecological value will have an economic one as well.

Moreover, markets can send mixed messages about the environmental policies which should be pursued. This may lead to over investment in some areas and then a slump. For example, rising demand for recycled goods may inspire an investment boom which, in turn, may lead to over-supply and then a crash, with plants closing as the price falls due to increased supply. Recycling may then become economically unviable, even though it remains ecologically essential. In addition, market prices hardly provide an accurate signal regarding the "correct" level of ecological demands in a society as they are constrained by income levels and reflect the economic pressures people are under. Financial security and income level play a key role, for in the market not all votes are equal. A market based allocation of environmental goods and bads does not reflect the obvious fact the poor may appear to value environmental issues less than the wealthy in this scheme simply because their prefer-

As Glenn Albrecht argues, such a capitalist "solution" to environmental problems is only "likely to be effective in protecting species [or ecosystems] which are commercially important only if the commercial value of that species [or ecosystem] exceeds that of other potential sources of income that could be generated from the same 'natural capital' that the species inhabits If, for example, the conservation of species for ecotourism generates income which is greater than that which could be gained by using their habit for the growing of cash crops, then the private property rights of the owners of the habitat will effectively protect those species ... However, this model becomes progressively less plausible when we are confronted with rare but commercially unimportant species [or ecosystems] versus very large development proposals that are inconsistent with their continual existence. The less charismatic the species, the more 'unattractive' the ecosystem, the more likely it will be that the development proposal will proceed. The 'rights' of developers will eventually win out over species and ecosystems since ... bio-diversity itself has no right to exist and even if it did, the clash of rights between an endangered species and multi-national capital would be a very uneven contest." ["Ethics, Anarchy and Sustainable Development", pp. 95-118, **Anarchist Studies**, vol. 2, no. 2, pp. 104–5]

So the conservation of endangered species or eco-systems is not automatically achieved using the market. This is especially the case when there is little, or no, economic value in the species or eco-system in question. The most obvious example is when there is only a limited profit to be made from a piece of land by maintaining it as the habitat of a rare species. If any alternative economic uses for that land yields a greater profit then that land will be developed. Moreover, if a species looses its economic value as a commodity then the property owners will become indifferent to its survival. Prices change and so an investment which made sense today may not look so good tomorrow. So if the market price of a resource decreases then it becomes unlikely that its ecological benefits will outweigh

# E.1 What are the root causes of our ecological problems?

The dangers associated with environmental damage have become better known over the last few decades. In fact, awareness of the crisis we face has entered into the mainstream of politics. Those who assert that environmental problems are minor or non-existent have, thankfully, become marginalised (effectively, a few cranks and so-called "scientists" funded by corporations and right-wing think tanks). Both politicians and corporations have been keen to announce their "green" credentials. Which is ironic, as anarchists would argue that both the state and capitalism are key causes for the environmental problems we are facing.

In other words, anarchists argue that pollution and the other environmental problems we face are symptoms. The disease itself is deeply imbedded in the system we live under and need to be addressed alongside treating the more obvious results of that deeper cause. Otherwise, to try and eliminate the symptoms by themselves can be little more than a minor palliative and, fundamentally, pointless as they will simply keep reappearing until their root causes are eliminated.

For anarchists, as we noted in section A.3.3, the root causes for our ecological problems lie in social problems. Bookchin uses the terms "first nature" and "second nature" to express this idea. First nature is the environment while second nature is humanity. The latter can shape and influence the former, for the worse or for the better. How it does so depends on how it treats itself. A decent, sane and egalitarian society will treat the en-

vironment it inhabits in a decent, sane and respective way. A society marked by inequality, hierarchies and exploitation will trend its environment as its members treat each other. Thus "all our notions of dominating nature stem from the very real domination of human by human." The "domination of human by human preceded the notion of dominating nature. Indeed, human domination of human gave rise to the very idea of dominating nature." This means, obviously, that "it is not until we eliminate domination in all its forms ... that we will really create a rational, ecological society." [Remaking Society, p. 44]

By degrading ourselves, we create the potential for degrading our environment. This means that anarchists "emphasise that ecological degradation is, in great part, a product of the degradation of human beings by hunger, material insecurity, class rule, hierarchical domination, patriarchy, ethnic discrimination, and competition." [Bookchin, "The Future of the Ecology Movement," pp. 1–20, Which Way for the Ecology Movement?, p. 17] This is unsurprising, for "nature, as every materialist knows, is not something merely external to humanity. We are a part of nature. Consequently, in dominating nature we not only dominate an 'external world' — we also dominate ourselves." [John Clark, The Anarchist Moment, p. 114]

We cannot stress how important this analysis is. We cannot ignore "the deep-seated division in society that came into existence with hierarchies and classes." To do so means placing "young people and old, women and men, poor and rich, exploited and exploiters, people of colour and whites all on a par that stands completely at odds with social reality. Everyone, in turn, despite the different burdens he or she is obliged to bear, is given the same responsibility for the ills of our planet. Be they starving Ethiopian children or corporate barons, all people are held to be equally culpable in producing present ecological problems." These become "de-socialised" and so this perspective "side-step[s] the profoundly social roots of present-day ecological dislocations" and "deflects innumerable people from engaging

cates" this is due to there being unowned resources for if someone owned them, they would sue whoever or whatever was polluting them. By means of private property and the courts, pollution would end. Similarly, if an endangered species or ecosystem were privatised then the new owners would have an interest in protecting them if tourists, say, were willing to pay to see them. Thus the solution to environmental problems is simple. Privatise everything and allow people's natural incentive to care for their own property take over.

Even on this basic level, there are obvious problems. Why assume that **capitalist** property rights are the only ones, for example? However, the crux of the problem is clear enough. This solution only works if we assume that the "resources" in question make their owners a profit or if they are willing and able to track down the polluters. Neither assumption is robust enough to carry the weight that capitalism places on our planet's environment. There is no automatic mechanism by which capitalism will ensure that environmentally sound practices will predominate. In fact, the opposite is far more likely.

At its most basic, the underlying rationale is flawed. It argues that it is only by giving the environment a price can we compare its use for different purposes. This allows the benefits from preserving a forest to be compared to the benefits of cutting it down and building a shopping centre over it. Yet by "benefits" it simply means economic benefits, i.e. whether it is profitable for property owners to do so, rather than ecologically sensible. This is an important difference. If more money can be made in turning a lake into a toxic waste dump then, logically, its owners will do so. Similarly, if timber prices are not rising at the prevailing profit or interest rate, then a selfinterested firm will seek to increase its profits and cut-down its trees as fast as possible, investing the returns elsewhere. They may even sell such cleared land to other companies to develop. This undermines any claim that private property rights and environmental protection go hand-in-hand.

logical destruction happens and what we should do about it and accepting the assumptions, institutions and social relationships of capitalism as a given as well as privatising yet more of the world and handing it over to capitalists. Little wonder it is being proposed as an alternative by corporations concerned about their green image. At the very least, it is fair to say that the corporations who punt free market environmentalism as an alternative paradigm for environmental policy making are not expecting to pay more by internalising their costs by so doing.

As with market fundamentalism in general, private property based environmentalism appears to offer solutions simply because it fails to take into account the reality of any actual capitalist system. The notion that all we have to do is let markets work ignores the fact that any theoretical claim for the welfare superiority of free-market outcomes falls when we look at any real capitalist market. Once we introduce, say, economic power, imperfect competition, public goods, externalities or asymmetric information then the market quickly becomes a god with feet of clay. This is what we will explore in the rest of this section while the next section will discuss a specific example of how laissez-faire capitalism cannot be ecological as proved by one of its most fervent ideologues. Overall, anarchists feel we have a good case on why is unlikely that private property can protect the environment.

#### E.3.1 Will privatising nature save it?

No, it will not. To see why, it is only necessary to look at the arguments and assumptions of those who advocate such solutions to our ecological problems.

The logic behind the notion of privatising the planet is simple. Many of our environmental problems stem, as noted in the last section, from externalities. According to the "market advo-

in a practice that could yield effective social change." It "easily plays into the hands of a privileged stratum who are only too eager to blame all the human victims of an exploitative society for the social and ecological ills of our time." [The Ecology of Freedom, p. 33]

Thus, for eco-anarchists, hierarchy is the fundamental root cause of our ecological problems. Hierarchy, notes Bookchin includes economic class "and even gives rise to class society historically" but it "goes beyond this limited meaning imputed to a largely economic form of stratification." It refers to a system of "command and obedience in which elites enjoy varying degrees of control over their subordinates without necessarily exploiting them." [Ecology of Freedom, p. 68] Anarchism, he stressed, "anchored ecological problems for the first time in hierarchy, not simply in economic classes." [Remaking Society, p. 155]

Needless to say, the forms of hierarchy have changed and evolved over the years. The anarchist analysis of hierarchies goes "well beyond economic forms of exploitation into cultural forms of domination that exist in the family, between generations and sexes, among ethnic groups, in institutions of political, economic, and social management, and very significantly, in the way we experience reality as a whole, including nature and nonhuman life-forms." [Op. Cit., p. 46] This means that anarchists recognise that ecological destruction has existed in most human societies and is not limited just to capitalism. It existed, to some degree, in all hierarchical pre-capitalist societies and, of course, in any hierarchical post-capitalist ones as well. However, as most of us live under capitalism today, anarchists concentrate our analysis to that system and seek to change it. Anarchists stress the need to end capitalism simply because of its inherently anti-ecological nature ("The history of 'civilisation' has been a steady process of estrangement from nature that has increasingly developed into outright antagonism."). Our society faces "a breakdown not only of its values and institutions, but also of its natural environment. This problem is not unique

to our times" but previous environmental destruction "pales before the massive destruction of the environment that has occurred since the days of the Industrial Revolution, and especially since the end of the Second World War. The damage inflicted on the environment by contemporary society encompasses the entire world ... The exploitation and pollution of the earth has damaged not only the integrity of the atmosphere, climate, water resources, soil, flora and fauna of specific regions, but also the basic natural cycles on which all living things depend." [Bookchin, Ecology of Freedom, p. 411 and p. 83]

This has its roots in the "grow-or-die" nature of capitalism we discussed in section D.4. An ever-expanding capitalism must inevitably come into collision with a finite planet and its fragile ecology. Firms whose aim is to maximise their profits in order to grow will happily exploit whoever and whatever they can to do so. As capitalism is based on exploiting people, can we doubt that it will also exploit nature? It is unsurprising, therefore, that this system results in the exploitation of the real sources of wealth, namely nature and people. It is as much about robbing nature as it is about robbing the worker. To quote Murray Bookchin:

"Any attempt to solve the ecological crisis within a bourgeois framework must be dismissed as chimerical. Capitalism is inherently anti-ecological. Competition and accumulation constitute its very law of life, a law ... summarised in the phrase, 'production for the sake of production.' Anything, however hallowed or rare, 'has its price' and is fair game for the marketplace. In a society of this kind, nature is necessarily treated as a mere resource to be plundered and exploited. The destruction of the natural world, far being the result of mere hubristic blunders, follows inexorably from the very logic of capitalist production." [Post-Scarcity Anarchism, pp. viii-ix]

needless to say, is entirely the opposite of the standard ecoanarchist one which argues that our environmental problems have their root in market mechanisms, private property and the behaviour they generate. As such, applying market norms even more rigorously and into areas of life that were previously protected from markets will tend to make ecological problems worse, not better.

As would be expected, the pro-property perspective is part of the wider turn to free(r) market capitalism since the 1970s. With the apparent success of Thatcherism and Reaganism (at least for the people who count under capitalism, i.e. the wealthy) and the fall of Stalinism in the Eastern Block, the 1980s and 1990s saw a period of capitalist triumphantism. This lead to an increase in market based solutions to every conceivable social problem, regardless of how inappropriate and/or insane the suggestions were. This applies to ecological issues as well. The publication of Free Market Environmentalism by Terry L. Anderson and Donald R. Leal in 1991 saw ideas previously associated with the right-"libertarian" fringe become more mainstream and, significantly, supported by corporate interests and the think-tanks and politicians they fund.

Some see it as a deliberate plan to counteract a growing ecological movement which aims to change social, political and economic structures in order to get at the root cases of our environmental problems. Activist Sara Diamond suggested that "[s]ome farsighted corporations are finding that the best 'bulwark' against 'anti-corporation' environmentalism is the creation and promotion of an alternative model called 'free market environmentalism.'" ["Free Market Environmentalism," Z Magazine, December 1991] Whatever the case, the net effect of this reliance on markets is to depoliticise environmental debates, to transform issues which involve values and affect many people into ones in which the property owner is given priority and where the criteria for decision making becomes one of profit and loss. It means, effectively, ending debates over why eco-

comprehend the local conditions and practical knowledge and skills required to effectively use the resources available in a sustainable manner should go without saying. Unfortunately, the economic clout of big business is such that it can defeat traditional forms of knowledge in the short-term (the long-term effect of such exploitation is usually considered someone else's problem).

So, given this analysis, it comes as no surprise to anarchists that private property has not protected the environment. In fact, it is one of the root causes of our ecological problems. Markets hide the ecological and health information necessary for environmentally sound decisions. Ultimately, environmental issues almost always involve value judgements and the market stops the possibility of producing a public dialogue in which these values can be discussed and enriched. Instead, it replaces this process by an aggregation of existing preferences (shaped by economic pressures and necessity) skewed in favour of this generation's property owners. An individual's interest, like that of the public as a whole, is not something which exists independently of the decision-making processes used but rather is something which is shaped by them. Atomistic processes focused on a simplistic criteria will produce simplistic decisions which have collectively irrational results. Collective decision making based on equal participation of all will produce decisions which reflect all the concerns of all affected in a process which will help produce empowered and educated individuals along with informed decisions.

Some disagree. For these the reason why there is environmental damage is not due to too much private property but because there is too little. This perspective derives from neoclassical and related economic theory and it argues that ecological harm occurs because environmental goods and bads are unpriced. They come free, in other words. This suggests that the best way to protect the environment is to privatise everything and to create markets in all areas of life. This perspective,

So, in a large part, environmental problems derive from the fact that capitalism is a competitive economy, guided by the maxim "grow or die." This is its very law of life for unless a firm expands, it will be driven out of business or taken over by a competitor. Hence the capitalist economy is based on a process of growth and production for their own sake. "No amount of moralising or pietising," stresses Bookchin, "can alter the fact that rivalry at the most molecular base of society is a bourgeois law of life ... Accumulation to undermine, buy out, or otherwise absorb or outwit a competitor is a condition for existence in a capitalist economic order." This means "a capitalistic society based on competition and growth for its own sake must ultimately devour the natural world, just like an untreated cancer must ultimately devour its host. Personal intentions, be they good or bad, have little to do with this unrelenting process. An economy that is structured around the maxim, 'Grow or Die,' must necessarily pit itself against the natural world and leave ecological ruin in its wake as its works it way through the biosphere." [Remaking **Society**, p. 93 and p. 15]

This means that good intentions and ideals have no bearing on the survival of a capitalist enterprise. There is a very simple way to be "moral" in the capitalist economy: namely, to commit economic suicide. This helps explain another key anti-ecological tendency within capitalism, namely the drive to externalise costs of production (i.e., pass them on to the community at large) in order to minimise private costs and so maximise profits and so growth. As we will discuss in more detail in section E.3, capitalism has an in-built tendency to externalise costs in the form of pollution as it rewards the kind of short-term perspective that pollutes the planet in order to maximise the profits of the capitalist. This is also driven by the fact that capitalism's need to expand also reduces decision making from the quantitative to the qualitative. In other words, whether something produces a short-term profit is the guiding maxim of decision making and the price mechanism itself sup-

presses the kind of information required to make ecologically informed decisions.

As Bookchin summarises, capitalism "has made social evolution hopelessly incompatible with ecological evolution." [Ecology of Freedom, p. 14] It lacks a sustainable relation to nature not due to chance, ignorance or bad intentions but due to its very nature and workings.

Fortunately, as we discussed in section D.1, capitalism has rarely been allowed to operate for long entirely on its own logic. When it does, counter-tendencies develop to stop society being destroyed by market forces and the need to accumulate money. Opposition forces always emerge, whether these are in the form of state intervention or in social movements aiming for reforms or more radical social change (the former tends to be the result of the latter, but not always). Both force capitalism to moderate its worst tendencies.

However, state intervention is, at best, a short-term. This is because the state is just as much a system of social domination, oppression and exploitation as capitalism. Which brings us to the next key institution which anarchists argue needs to be eliminated in order to create an ecological society: the state. If, as anarchists argue, the oppression of people is the fundamental reason for our ecological problems then it logically follows that the state cannot be used to either create and manage an ecological society. It is a hierarchical, centralised, top-down organisation based on the use of coercion to maintain elite rule. It is, as we stressed in section B.2, premised on the monopolisation of power in the hands of a few. In other words, it is the opposite of commonly agreed ecological principles such as freedom to develop, decentralisation and diversity.

As Bookchin put it, the "notion that human freedom can be achieved, much less perpetuated, through a state of any kind is monstrously oxymoronic — a contradiction in terms." This is because "statist forms" are based on "centralisation, bureaucratisation, and the professionalisation of power in the hands of elite bod-

marginal actors in markets, such as peasant and marginalised indigenous communities, tends to be lost to those who hold market power. The epistemic value of knowledge claims bear no direct relation to their market value. Local and often unarticulated knowledge of soil conditions and crop varieties that have considerable value for long-term sustainability of agriculture has no value in markets and hence is always liable to loss when it comes into contact with oil-based agricultural technologies of those who do have market power. The undermining of local practical knowledge in market economies has also been exacerbated by the global nature of both markets and large corporate actors who require knowledge that is transferable across different cultures and contexts and hence abstract and codifiable ... Finally, the demand for commensurability and calculability runs against the defence of local and practical knowledge. This is not just a theoretical problem but one with real institutional embodiments. The market encourages a spirit of calculability ... That spirit is the starting point for the algorithmic account of practical reason which requires explicit common measures for rational choice and fails to acknowledge the existence of choice founded upon practical judgement. More generally it is not amicable to forms of knowledge that are practical, local and uncodifiable." [Markets,

Deliberation and Environment, pp. 192–3]

Thus the market tends to replace traditional forms of agriculture and working practices (and the complex knowledge and expertises associated with both) with standardised techniques which aim to extract as much profit in the short-term as possible by concentrating power into the hands of management and their appointed experts. That they cannot even begin to

result, capitalists will be unlikely to invest in such projects as they cannot make everyone who uses them pay for the privilege.

Then there is the tendency for the market to undermine and destroy practical and local knowledge on which truly ecological decisions need to be based. Indigenous groups, for example, have accumulated an enormous body of knowledge about local ecological conditions and species which are ignored in economic terms or eliminated by competition with those with economic power. Under markets, in other words, unarticulated knowledge of soil conditions and bio-diversity which have considerable value for long-term sustainability is usually lost when it meets agribusiness.

Practical knowledge, i.e. local and tacit knowledge which James C. Scott terms metis, is being destroyed and replaced "by standardised formulas legible from the centre" and this "is virtually inscribed in the activities of both the state and large-scale bureaucratic capitalism." The "logic animating the project ... is one of control and appropriation. Local knowledge, because it is dispersed and relatively autonomous, is all but unappropriable. The reduction or, more utopian still, the elimination of metis and the local control its entails are preconditions, in the case of the state, of administrative order and fiscal appropriation and, in the case of the large capitalism firm, of worker discipline and profit." [Op. Cit., pp. 335–6] Green socialist John O'Neill provides a similar analysis:

"far from fostering the existence of practical and local knowledge, the spread of markets often appears to do the opposite: the growth of global markets is associated with the disappearance of knowledge that is local and practical, and the growth of abstract codifiable information ... the market as a mode of coordination appears to foster forms of abstract codifiable knowledge ... The knowledge of weak and ies." This flows from its nature for one of its "essential functions is to confine, restrict, and essentially suppress local democratic institutions and initiatives." It has been organised to reduce public participation and control, even scrutiny. ["The Ecological Crisis, Socialism, and the need to remake society," pp. 1–10, Society and Nature, vol. 2, no. 3, p. 8 and p. 9] If the creation of an ecological society requires individual freedom and social participation (and it does) then the state by its very nature and function excludes both.

The state's centralised nature is such that it cannot handle the complexities and diversity of life. "No administrative system is capable of representing" a community or, for that matter, an eco-system argues James C. Scott "except through a heroic and greatly schematised process of abstraction and simplification. It is not simply a question of capacity ... It is also a question of purpose. State agents have no interest - nor should they - in describing an entire social reality ... Their abstractions and simplifications are disciplined by a small number of objectives." This means that the state is unable to effectively handle the needs of ecological systems, including human ones. Scott analyses various largescale state schemes aiming at social improvement and indicates their utter failure. This failure was rooted in the nature of centralised systems. He urges us "to consider the kind of human subject for whom all these benefits were being provided. This subject was singularly abstract." The state was planning "for generic subjects who needed so many square feet of housing space, acres of farmland, litres of clean water, and units of transportation and so much food, fresh air, and recreational space. Standardised citizens were uniform in their needs and even interchangeable. What is striking, of course, is that such subjects ... have, for purposes of the planning exercise, no gender; no tastes; no history; no values; no opinions or original ideas, no traditions, and no distinctive personalities to contribute to the enterprise ... The lack of context and particularity is not an oversight; it is the necessary first premise of any large-scale planning exercise. To the degree that the sub-

jects can be treated as standardised units, the power of resolution in the planning exercise is enhanced ... The same logic applies to the transformation of the natural world." [Seeing like a State, pp. 22–3 and p. 346]

A central power reduces the participation and diversity required to create an ecological society and tailor humanity's interaction with the environment in a way which respects local conditions and eco-systems. In fact, it helps creates ecological problems by centralising power at the top of society, limiting and repressing the freedom of individuals communities and peoples as well as standardising and so degrading complex societies and eco-systems. As such, the state is just as antiecological as capitalism is as it shares many of the same features. As Scott stresses, capitalism "is just as much an agency of homogenisation, uniformity, grids, and heroic simplification as the state is, with the difference being that, for capitalists, simplification must pay. A market necessarily reduces quality to quantity via the price mechanism and promotes standardisation; in markets, money talks, not people ... the conclusions that can be drawn from the failures of modern projects of social engineering are as applicable to market-driven standardisation as they are to bureaucratic homogeneity." [Op. Cit., p. 8]

In the short term, the state may be able to restrict some of the worse excesses of capitalism (this can be seen from the desire of capitalists to fund parties which promise to deregulate an economy, regardless of the social and environmental impact of so doing). However, the interactions between these two antiecological institutions are unlikely to produce long term environmental solutions. This is because while state intervention can result in beneficial constraints on the anti-ecological and anti-social dynamics of capitalism, it is always limited by the nature of the state itself. As we noted in section B.2.1, the state is an instrument of class rule and, consequently, extremely unlikely to impose changes that may harm or destroy the system itself. This means that any reform movement will have to

vital importance for man and society are suppressed; they are not allowed to surface. Thus the reign of quantity celebrates its greatest triumphs in 'The Market.'" This feeds the drive to externalise costs, as it is "based on a definition of cost which excludes all 'free goods,' that is to say, the entire God-given environment, except for those parts of it that have been privately appropriated. This means that an activity can be economic although it plays hell with the environment, and that a competing activity, if at some cost it protects and conserves the environment, will be uneconomic." To summarise: "it is inherent in the methodology of economics to **ignore man's dependence on the natural world**." [Op. Cit., p. 30 and p. 29]

Ultimately, should our decision-making be limited to a single criteria, namely whether it makes someone a profit? Should our environment be handed over to a system which bases itself on confusing efficient resource allocation with maximising profits in an economy marked by inequalities of wealth and, consequently, on unequal willingness and ability to pay? In other words, biodiversity, eco-system stability, clean water and air, and so forth only become legitimate social goals when the market places a price on them sufficient for a capitalist to make money from them. Such a system can only fail to achieve a green society simply because ecological concerns cannot be reduced to one criteria ("The discipline of economics achieves its formidable resolving power by transforming what might otherwise be considered qualitative matters into quantitative issues with a single metric and, as it were, a bottom line: profit or loss." [James C. Scott, Seeing like a State, p. 346]). This is particularly the case when even economists admit that the market undersupplies public goods, of which a clean and aesthetically pleasing environment is the classic example. Markets may reflect, to some degree, individual consumer preferences distorted by income distribution but they are simply incapable of reflecting collective values (a clean environment and spectacular views are inherently collective goods and cannot be enclosed). As a

discount the pressure of market forces in this process. In order to survive on the market, firms may have to act in ways which, while profitable in the short-run, are harmful in the long term. For example, a family-owned farm may be forced to increase production using environmentally unsound means simply in order to avoid bankruptcy.

As well as economic incentives, the creation of externalities flows from the price mechanism itself. The first key issue, as green economist E. F. Schumacher stressed, is that the market is based on "total quantification at the expense of qualitative differences; for private enterprise is not concerned with what it produces but only what it gains from production." This means that the "judgement of economics ... is an extremely fragmentary judgement; out of the large number of aspects which in real life have to be seen and judged together before a decision can be taken, economics supplies only one — whether a thing yields a profit to those who undertake it or not." [Small is Beautiful, p. 215 and p. 28] This leads to a simplistic decision making perspective:

"Everything becomes crystal clear after you have reduced reality to one — one only — of its thousand aspects. You know what to do — whatever produces profits; you know what to avoid — whatever reduces them or makes a loss. And there is at the same time a perfect measuring rod for the degree of success or failure. Let no-one befog the issue by asking whether a particular action is conducive to the wealth and well-being of society, whether it leads to moral, aesthetic, or cultural enrichment. Simply find out whether it pays." [Op. Cit., p. 215]

This means that key factors in decision making are, at best, undermined by the pressing need to make profits or, at worse, simply ignored as a handicap. So "in the market place, for practical reasons, innumerable qualitative distinctions which are of

fight hard for even the most basic and common-sense changes while constantly having to stop capitalists ignoring or undermining any reforms actually passed which threaten their profits and the accumulation of capital as a whole. This means that counterforces are always set into motion by ruling class and even sensible reforms (such as anti-pollution laws) will be overturned in the name of "deregulation" and profits.

Unsurprisingly, eco-anarchists, like all anarchists, reject appeals to state power as this "invariably legitimates and strengthens the State, with the result that it disempowers the people." They note that ecology movements "that enter into parliamentary activities not only legitimate State power at the expense of popular power," they also are "obligated to function within the State" and "must 'play the game,' which means that they must shape their priorities according to predetermined rules over which they have no control." This results in "an ongoing process of degeneration, a steady devolution of ideals, practices, and party structures" in order to achieve "very little" in "arrest[ing] environmental decay." [Remaking Society, p. 161, p. 162 and p. 163] The fate of numerous green parties across the world supports that analysis.

That is why anarchists stress the importance of creating social movements based on direct action and solidarity as the means of enacting reforms under a hierarchical society. Only when we take a keen interest and act to create and enforce reforms will they stand any chance of being applied successfully. If such social pressure does not exist, then any reform will remain a dead-letter and ignored by those seeking to maximise their profits at the expense of both people and planet. As we discuss in section J, this involves creating alternative forms of organisation like federations of community assemblies (see section J.5.1) and industrial unions (see section J.5.2). Given the nature of both a capitalist economy and the state, this makes perfect sense.

In summary, the root cause of our ecological problems likes in hierarchy within humanity, particularly in the form of the state and capitalism. Capitalism is a "grow-or-die" system which cannot help destroy the environment while the state is a centralised system which destroys the freedom and participation required to interact with eco-systems. Based on this analysis, anarchists reject the notion that all we need do is get the state to regulate the economy as the state is part of the problem as well as being an instrument of minority rule. Instead, we aim to create an ecological society and end capitalism, the state and other forms of hierarchy. This is done by encouraging social movements which fight for improvements in the short term by means direct action, solidarity and the creation of popular libertarian organisations.

### E.1.1 Is industry the cause of environmental problems?

Some environmentalists argue that the root cause of our ecological crisis lies in industry and technology. This leads them to stress that "industrialism" is the problem and that needs to be eliminated. An extreme example of this is primitivism (see section A.3.9), although it does appear in the works of "deep ecologists" and liberal greens. However, most anarchists are unconvinced and agree with Bookchin when he noted that "cries against 'technology' and 'industrial society' [are] two very safe, socially natural targets against which even the bourgeoisie can inveigh in Earth Day celebrations, as long as minimal attention is paid to the social relations in which the mechanisation of society is rooted." Instead, ecology needs "a confrontational stance toward capitalism and hierarchical society" in order to be effective and fix the root causes of our problems. [The Ecology of Freedom, p. 54]

crisis sooner rather than later. These flow from the nature of private property and the market competition it produces (this discussion, we should stress, ignores such factors as economic power which will be addressed in section E.3.2).

The market itself causes ecological problems for two related reasons: externalities and the price mechanism. It is difficult making informed consumption decisions under capitalism because rather than provide enough information to make informed decisions, the market hinders the flow of relevant information and suppresses essential knowledge. This is particularly the case with environmental information and knowledge. Simply put, we have no way of knowing from a given price the ecological impact of the products we buy. One such area of suppressed information is that involving externalities. This is a commonly understood problem. The market actively rewards those companies which inflict externalities on society. This is the "routine and regular harms caused to **others** — workers, consumers, communities, the environment." These are termed "externalities" in "the coolly technical jargon of economics" and the capitalist company is an "externalising machine" and it is "no exaggeration to say that the corporation's built in compulsion to externalise its costs is at the root of many of the world's social and environmental ills." [Joel Bakan, The Corporation, p. 60 and p. 61]

The logic is simple, by externalising (imposing) costs on others (be it workers, customers or the planet) a firm can reduce its costs and make higher profits. Thus firms have a vested interest in producing externalities. To put it crudely, pollution pays while ecology costs. Every pound a business spends on environmental protections is one less in profits. As such, it makes economic sense to treat the environment like a dump and externalise costs by pumping raw industrial effluent into the atmosphere, rivers, and oceans. The social cost of so doing weighs little against the personal profits that result from inflicting diffuse losses onto the general public. Nor should we

some degree. Some of this is, of course, simply greenwashing (i.e., using PR and advertising to present a green image while conducting business as usual). Some of it is funding think tanks which use green-sounding names, imagery and rhetoric to help pursue a decidedly anti-ecological practice and agenda. Some of is, to some degree, genuine. Al Gore's campaign to make the world aware of the dangers of climate change is obviously sincere and important work (although it is fair to point out the lack of green policies being raised during his 2000 Presidential election campaign and the poverty of his proposed solutions and means of change). Nicholas Stern's 2006 report on climate change produced for the UK government is another example and it gives an insight into the mentality of such environmentalists. The report did produce quite an impact (plus its dismissal by the usual suspects). The key reason for that was, undoubtedly, due to it placing a money sum on the dangers of environmental disruption. Such is capitalism — people and planet can go to the dogs, but any threat to profits must be acted upon. As the British PM at the time put it, any Climate Change Bill must be "fully compatible with the interests of businesses and consumers as well." Which is ironic, as it is the power of money which is causing the bulk of the problems we face.

Which is what we will discuss here, namely whether private property can be used to solve our environmental problems. Liberal environmentalists base their case on capitalist markets aided with some form of state intervention. Neo-liberal and right-"libertarian" environmentalists base their case purely on capitalist markets and reject any role for the state bar that of defining and enforcing private property rights. Both, however, assume that capitalism will remain and tailor their policies around it. Anarchists question that particularly assumption particularly given, as we discussed in section E.1, the fundamental reason why capitalism cannot be green is its irrational "grow-or-die" dynamic. However, there are other aspects of the system which contribute to capitalism bringing ecological

Claiming that "industrialism" rather than "capitalism" is the cause of our ecological problems allowed greens to point to both the west and the so-called "socialist" countries and draw out what was common to both (i.e. terrible environmental records and a growth mentality). In addition, it allowed green parties and thinkers to portray themselves as being "above" the "old" conflicts between socialism and capitalism (hence the slogan "Neither Right nor Left, but in front"). Yet this position rarely convinced anyone as any serious green thinker soon notes that the social roots of our environmental problems need to be addressed and that brings green ideas into conflict with the status quo (it is no coincidence that many on the right dismiss green issues as nothing more than a form of socialism or, in America, "liberalism"). However, by refusing to clearly indicate opposition to capitalism this position allowed many reactionary ideas (and people!) to be smuggled into the green movement (the population myth being a prime example). As for "industrialism" exposing the similarities between capitalism and Stalinism, it would have been far better to do as anarchists had done since 1918 and call the USSR and related regimes what they actually were, namely "state capitalism."

Some greens (like many defenders of capitalism) point to the terrible ecological legacy of the Stalinist countries of Eastern Europe and elsewhere. For supporters of capitalism, this was due to the lack of private property in these systems while, for greens, it showed that environmental concerns where above both capitalism and "socialism." Needless to say, by "capitalism" anarchists mean both private and state forms of that system. As we argued in section B.3.5, under Stalinism the state bureaucracy controlled and so effectively owned the means of production. As under private capitalism, an elite monopolised decision making and aimed to maximise their income by oppressing and exploiting the working class. Unsurprisingly, they had as little consideration "first nature" (the environment) as

they had for "second nature" (humanity) and dominated, oppressed and exploited both (just as private capitalism does).

As Bookchin emphasised the ecological crisis stems not only from private property but from the principle of domination itself — a principle embodied in institutional hierarchies and relations of command and obedience which pervade society at many different levels. Thus, "[w]ithout changing the most molecular relationships in society — notably, those between men and women, adults and children, whites and other ethnic groups, heterosexuals and gays (the list, in fact, is considerable) — society will be riddled by domination even in a socialistic 'classless' and 'non-exploitative' form. It would be infused by hierarchy even as it celebrated the dubious virtues of 'people's democracies,' 'socialism' and the 'public ownership' of 'natural resources,' And as long as hierarchy persists, as long as domination organises humanity around a system of elites, the project of dominating nature will continue to exist and inevitably lead our planet to ecological extinction." [Toward an Ecological Society, p. 76]

Given this, the real reasons for why the environmental record of Stalinist regimes were worse that private capitalism can easily be found. Firstly, any opposition was more easily silenced by the police state and so the ruling bureaucrats had far more lee-way to pollute than in most western countries. In other words, a sound environment requires freedom, the freedom of people to participate and protest. Secondly, such dictatorships can implement centralised, top-down planning which renders their ecological impact more systematic and widespread (James C. Scott explores this at great length in his excellent book Seeing like a State).

Fundamentally, though, there is no real difference between private and state capitalism. That this is the case can be seen from the willingness of capitalist firms to invest in, say, China in order to take advantage of their weaker environmental laws and regulations plus the lack of opposition. It can also be seen from the gutting of environmental laws and regulation in the once noted, "Rand remarked that she worshipped smokestacks. For her ... they not only stood for, they were the epitome of human accomplishment. She must have meant it since she was something of a human smokestack herself; she was a chain smoker, as were the other rationals in her entourage. In the end she abolished her own breathing: she died of lung cancer." ["Smokestack Lightning," Friendly Fire, p. 62] The fate of this guru of capitalism is a forewarning for our collective one if we ignore the environment and our impact on it.

The key to understanding why so many on the right are dismissive of ecological concerns is simply that ecology cannot be squeezed into their narrow individualistic property based politics. Ecology is about interconnectiveness, about change and interaction, about the sources of life and how we interact with them and they with us. Moreover, ecology is rooted in the quality of life and goes not automatically view quantity as the key factor. As such, the notion that more is better does not strike the ecologist as, in itself, a good thing. The idea that growth is good as such is the principle associated with cancer. Ecology also destroys the individualistic premise of capitalist economics. It exposes the myth that the market ensures everyone gets exactly what they want — for if you consume eco-friendly products but others do not then you are affected by their decisions as the environmental impact affects all. Equally, the notion that the solution to GM crops should letting "the market" decide fails to take into account that such crops spread into local eco-systems and contaminate whole areas (not to mention the issue of corporate power enclosing another part of the commons). The market "solution" in this case would result in everyone, to some degree, consuming GM crops eventually. None of this can be fitted into the capitalist ideology.

However, while vocal irrational anti-green perspectives lingers on in some sections of the right (particularly those funded by the heaviest polluters), other supporters of capitalism have considered the problems of ecological destruction in

# E.3 Can private property rights protect the environment?

Environmental issues have become increasingly important over the decades. When Murray Bookchin wrote his first works on our ecological problems in the 1950s, he was only one of a small band. Today, even right-wing politicians have to give at least some lip-service to environmental concerns while corporations are keen to present their green credentials to the general public (even if they do not, in fact, have any).

As such, there has been a significant change. This is better late than never, considering that the warnings made by the likes of Bookchin in the 1950s and 1960s have come true to a threateningly worrying degree. Sadly, eco-anarchist solutions are still ignored but that is unsurprising as they go to the heart of the ecological problem, namely domination within humanity as the precondition for the domination of nature and the workings of the capitalist economy. It is hardly likely that those who practice and benefit from that oppression and exploitation will admit that they are causing the problems! Hence the need to appear green in order to keep a fundamentally anti-green system going.

Of course, some right-wingers are totally opposed to ecological issues. They seriously seem to forget without a viable ecology, there would be no capitalism. Ayn Rand, for example, dismissed environmental concerns as being anti-human and had little problem with factory chimneys belching smoke into the atmosphere (her fondness for chimneys and skyscrapers would have have made Freud reach for his notepad). As Bob Black

west in order to gain competitive advantages. Unsurprisingly, laws to restrict protest have been increasingly passed in many countries as they have embraced the neo-liberal agenda with the Thatcher regime in the UK and its successors trail-blazing this process. The centralisation of power which accompanies such neo-liberal experiments reduces social pressures on the state and ensures that business interests take precedence.

As we argued in section D.10, the way that technology is used and evolves will reflect the power relations within society. Given a hierarchical society, we would expect a given technology to be used in repressive ways regardless of the nature of that technology itself. Bookchin points to the difference between the Iroquois and the Inca. Both societies used the same forms of technology, but the former was a fairly democratic and egalitarian federation while the latter was a highly despotic empire. As such, technology "does not fully or even adequately account for the institutional differences" between societies. [The Ecology of Freedom, p. 331] This means that technology does not explain the causes for ecological harm and it is possible to have an anti-ecological system based on small-scale technologies:

"Some of the most dehumanising and centralised social systems were fashioned out of very 'small' technologies; but bureaucracies, monarchies, and military forces turned these systems into brutalising cudgels to subdue humankind and, later, to try to subdue nature. To be sure, a large-scale technics will foster the development of an oppressively large-scale society; but every warped society follows the dialectic of its own pathology of domination, irrespective of the scale of its technics. It can organise the 'small' into the repellent as surely as it can imprint an arrogant sneer on the faces of the elites who administer it ... Unfortunately, a preoccupation with technical

size, scale, and even artistry deflects our attention away from the most significant problems of technics — notably, its ties with the ideals and social structures of freedom." [Bookchin, Op. Cit., pp. 325-6]

In other words, "small-scale" technology will not transform an authoritarian society into an ecological one. Nor will applying ecologically friendly technology to capitalism reduce its drive to grow at the expense of the planet and the people who inhabit it. This means that technology is an aspect of a wider society rather than a socially neutral instrument which will always have the same (usually negative) results. As Bookchin stressed, a "liberatory technology presupposes liberatory institutions; a liberatory sensibility requires a liberatory society. By the same token, artistic crafts are difficult to conceive without an artistically crafted society, and the 'inversion of tools' is impossible with a radical inversion of all social and productive relationships." [Op. Cit., pp. 328–9]

Finally, it should be stressed that attempts to blame technology or industry for our ecological problems have another negative effect than just obscuring the real causes of those problems and turning attention away from the elites who implement specific forms of technology to further their aims. It also means denying that technology can be transformed and new forms created which can help produce an ecologically balanced society:

"The knowledge and physical instruments for promoting a harmonisation of humanity with nature and of human with human are largely at hand or could easily be devised. Many of the physical principles used to construct such patently harmful facilities as conventional power plants, energy-consuming vehicles, surface-mining equipment and the like could be directed to the construction of

wastes and the latter stopping the production of toxins in the first place. Only when workers are in a position to refuse to engage in destructive practices or produce destructive goods can lasting ecological change emerge. Unsurprisingly, modern anarchists and anarcho-syndicalists have been keen to stress the need for a green syndicalism which addresses ecological as well as economical exploitation. The ideas of community and industrial unionism are discussed in more detail in section J.5 along with other anarchist tactics for social change. Needless to say, such organisations would use direct action as their means of achieving their goals (see section J.2). It should be noted that some of Bookchin's social ecologist followers advocate, like him, greens standing in local elections as a means to create a counter-power to the state. As we discuss in section J.5.14, this strategy (called Libertarian Municipalism) finds few supporters in the wider anarchist movement.

This strategy flows, of course, into the structures of an ecological society. As we discuss in section I.2.3, anarchists argue that the framework of a free society will be created in the process of fighting the existing one. Thus the structures of an eco-anarchist society (i.e. eco-communes and self-managed workplaces) will be created by fighting the ecocidal tendencies of the current system. In other words, like all anarchists eco-anarchists seek to create the new world while fighting the old one. This means what we do now is, however imperfect, an example of what we propose instead of capitalism. That means we act in an ecological fashion today in order to ensure that we can create an ecological society tomorrow.

For more discussion of how an anarchist society would work, see section I. We will discuss the limitations of various proposed solutions to the environmental crisis in the following sections.

sal of all the trends that mark the historic development of capitalist technology and bourgeois society—the minute specialisation or machines and labour, the concentration of resources and people in gigantic industrial enterprises and urban entities, the stratification and bureaucratisation of life, the divorce of town from country, the objectification of nature and human beings. In my view, this sweeping reversal means that we must begin to decentralise our cities and establish entirely new eco-communities that are artistically moulded to the ecosystems in which they are located ...

"Such an eco-community ... would heal the split between town and country, indeed, between mind and body by fusing intellectual with physical work, industry with agriculture in a rotation or diversification of vocational tasks. An eco-community would be supported by a new kind of technology — or ecotechnology — one composed of flexible, versatile machinery whose productive applications would emphasise durability and quality ..." [Toward an Ecological Society, pp. 68–9]

Lastly, we need to quickly sketch out how anarchists see the change to an ecological society happening as there is little point having an aim if you have no idea how to achieve it.

As noted above, eco-anarchists (like all anarchists) do not counterpoise an ideal utopia to existing society but rather participate in current ecological struggles. Moreover, we see that struggle itself as the link between what is and what could be. This implies, at minimum, a two pronged strategy of neighbourhood movements and workplace organising as a means of both fighting and abolishing capitalism. These would work together, with the former targeting, say, the disposal of toxic

small-scale solar and wind energy devices, efficient means of transportation, and energy-saving shelters." [Bookchin, **Op**. Cit., p. 83]

We must understand that "the very idea of dominating first nature has its origins in the domination of human by human" otherwise "we will lose what little understanding we have of the social origin of our most serious ecological problems." It this happens then we cannot solve these problems, as it "will grossly distort humanity's potentialities to play a creative role in nonhuman as well as human development." For "the human capacity to reason conceptually, to fashion tools and devise extraordinary technologies" can all "be used for the good of the biosphere, not simply for harming it. What is of pivotal importance in determining whether human beings will creatively foster the evolution of first nature or whether they will be highly destructive to nonhuman and human beings alike is precisely the kind of society we establish, not only the kind of sensibility we develop." [Op. Cit., p. 34]

### E.1.2 What is the difference between environmentalism and ecology?

As we noted in section A.3.3, eco-anarchists contrast ecology with environmentalism. The difference is important as it suggests both a different analysis of where our ecological problems come from and the best way to solve them. As Bookchin put it:

"By 'environmentalism' I propose to designate a mechanistic, instrumental outlook that sees nature as a passive habitat composed of 'objects' such as animals, plants, minerals, and the like that must merely be rendered more serviceable for human use ... Within this context, very little of a social nature

is spared from the environmentalist's vocabulary: cities become 'urban resources' and their inhabitants 'human resources' ... Environmentalism ... tends to view the ecological project for attaining a harmonious relationship between humanity and nature as a truce rather than a lasting equilibrium. The 'harmony' of the environmentalist centres around the development of new techniques for plundering the natural world with minimal disruption of the human 'habitat.' Environmentalism does not question the most basic premise of the present society, notably, that humanity must dominant nature; rather, it seeks to facilitate than notion by developing techniques for diminishing the hazards caused by the reckless despoliation of the environment." [The Ecology of Freedom, p. 86]

So eco-anarchists call the position of those who seek to reform capitalism and make it more green "environmentalism" rather than ecology. The reasons are obvious, as environmentalists "focus on specific issues like air and water pollution" while ignoring the social roots of the problems they are trying to solve. In other words, their outlook "rest[s] on an instrumental, almost engineering approach to solving ecological dislocations. To all appearances, they wanted to adapt the natural world to the needs of the existing society and its exploitative, capitalist imperatives by way of reforms that minimise harm to human health and well-being. The much-needed goals of formulating a project for radical social change and for cultivating a new sensibility toward the natural world tended to fall outside the orbit of their practical concerns." Eco-anarchists, while supporting such partial structures, stress that "these problems originate in a hierarchical, class, and today, competitive capitalist system that nourishes a view of the natural world as a mere agglomeration

and exposing members of the community to a wide spectrum of economic, cultural and behavioural stimuli. Falling within our purview will be an exciting, often dramatic, variety of communal forms — here marked by architectural and industrial adaptations to semi-arid ecosystems, there to grasslands, elsewhere by adaptation to forested areas. We will witness a creative interplay between individual and group, community and environment, humanity and nature." [Bookchin, Post-Scarcity Anarchism, p. 39]

So, to conclude, in place of capitalism eco-anarchists favour ecologically responsible forms of libertarian socialism, with an economy based on the principles of complementarily with nature; decentralisation (where possible and desirable) of largescale industries, reskilling of workers, and a return to more artisan-like modes of production; the use of eco-technologies and ecologically friendly energy sources to create green products; the use of recycled and recyclable raw materials and renewable resources; the integration of town and country, industry and agriculture; the creation of self-managed ecocommunities which exist in harmony with their surroundings; and self-managed workplaces responsive to the wishes of local community assemblies and labour councils in which decisions are made by direct democracy and co-ordinated (where appropriate and applicable) from the bottom-up in a free federation. Such a society would aim to develop the individuality and freedom of all its members in order to ensure that we end the domination of nature by humanity by ending domination within humanity itself.

This is the vision of a green society put forth by Murray Bookchin. To quote him:

"We must create an ecological society — not merely because such a society is desirable but because it is direly necessary. We must begin to live in order to survive. Such a society involves a fundamental rever-

old ones (e.g. Lenin becoming the new "Tsar" and Communist Party aparatchiks becoming the new "aristocracy"). Therefore, besides having a slower growth rate, worker co-operatives with democratic self-management would lay the psychological foundations for the kind of directly democratic political system necessary to protect the biosphere. Thus "green" libertarian socialism is the only proposal radical enough to solve the ecological crisis.

Ecological crises become possible only within the context of social relations which weaken people's capacities to fight an organised defence of the planet's ecology and their own environment. This means that the restriction of participation in decision-making processes within hierarchical organisations such as the state and capitalism firms help create environmental along with social problems by denying those most affected by a problem the means of fixing it. Needless to say, hierarchy within the workplace is a prerequisite to accumulation and so growth while hierarchy within a community is a prerequisite to defend economic and social inequality as well as minority rule as the disempowered become indifferent to community and social issues they have little or no say in. Both combine to create the basis of our current ecological crisis and both need to be ended.

Ultimately, a free nature can only begin to emerge when we live in a fully participatory society which itself is free of oppression, domination and exploitation. Only then will we be able to rid ourselves of the idea of dominating nature and fulfil our potential as individuals and be a creative force in natural as well social evolution. That means replacing the current system with one based on freedom, equality and solidarity. Once this is achieved, "social life will yield a sensitive development of human and natural diversity, falling together into a well balanced harmonious whole. Ranging from community through region to entire continents, we will see a colourful differentiation of human groups and ecosystems, each developing its unique potentialities

of 'resources' for human production and consumption." [Op. Cit., pp. 15–6]

This is the key. As environmentalism does not bring into question the underlying notion of the present society that man must dominate nature it cannot present anything other than short-term solutions for the various symptoms of the underlying problem. Moreover, as it does not question hierarchy, it simply adjusts itself to the status quo. Thus liberal environmentalism is so "hopelessly ineffectual" because "it takes the present social order for granted" and is mired in "the paralysing belief that a market society, privately owned property, and the presentday bureaucratic nation-state cannot be changed in any basic sense. Thus, it is the prevailing order that sets the terms of any 'compromise' or 'trade-off'" and so "the natural world, including oppressed people, always loses something piece by piece, until everything is lost in the end. As long as liberal environmentalism is structured around the social status quo, property rights always prevail over public rights and power always prevails over powerlessness. Be it a forest, wetlands, or good agricultural soil, a 'developer' who owns any of these 'resources' usually sets the terms on which every negotiation occurs and ultimately succeeds in achieving the triumph of wealth over ecological considerations." [Bookchin, Remaking Society, p. 15]

This means that a truly ecological perspective seeks to end the situation where a few govern the many, not to make the few nicer. As Chomsky once noted on the issue of "corporate social responsibility", he could not discuss the issue as such because he did "not accept some of its presuppositions, specifically with regard to the legitimacy of corporate power" as he did not see any "justification for concentration of private power" than "in the political domain." Both would "act in a socially responsible way — as benevolent despots — when social strife, disorder, protest, etc., induce them to do so for their own benefit." He stressed that in a capitalist society "socially responsible behaviour would be penalised quickly in that competitors, lacking such social respon-

sibility, would supplant anyone so misguided as to be concerned with something other than private benefit." This explains why real capitalist systems have always "been required to safeguard social existence in the face of the destructive forces of private capitalism" by means of "substantial state control." However, the "central questions ... are not addressed, but rather begged" when discussing corporate social responsibility. [Language and Politics, p. 275]

Ultimately, the key problem with liberal environmentalism (as with liberalism in general) is that it tends, by definition, to ignore class and hierarchy. The "we are all in this together" kind of message ignores that most of decisions that got us into our current ecological and social mess were made by the rich as they have control over resources and power structures (both private and public). It also suggests that getting us out of the mess must involve taking power and wealth back from the elite — if for no other reason because working class people do not, by themselves, have the resources to solve the problem.

Moreover, the fact is the ruling class do **not** inhabit quite the same polluted planet as everyone else. Their wealth protects them, to a large degree, to the problems that they themselves have created and which, in fact, they owe so much of that wealth to (little wonder, then, they deny there is a serious problem). They have access to a better quality of life, food and local environment (no toxic dumps and motorways are near their homes or holiday retreats). Of course, this is a short term protection but the fate of the planet is a long-term abstraction when compared to the immediate returns on one's investments. So it is not true to say that **all** parts of the ruling class are in denial about the ecological problems. A few are aware but many more show utter hatred towards those who think the planet is more important than profits.

This means that such key environmentalist activities such as education and lobbying are unlikely to have much effect. While these may produce **some** improvements in terms of our directly affected by it. As a framework for ecological ethics, the communal system envisioned by social anarchists would be far better than private property and markets in protecting the environment. This is because the pressures that markets exert on their members would not exist, as would the perverse incentives which reward anti-social and anti-ecological practices. Equally, the anti-ecological centralisation and hierarchy of the state would be ended and replaced with a participatory system which can take into account the needs of the local environment and utilise the local knowledge and information that both the state and capitalism suppresses.

Thus a genuine solution to the ecological crisis presupposes communes, i.e. participatory democracy in the social sphere. This is a transformation that would amount to a political revolution. However, as Bakunin continually emphasised, a political revolution of this nature cannot be envisioned without a **socio-economic** revolution based on workers' self-management. This is because the daily experience of participatory decision-making, non-authoritarian modes of organisation, and personalistic human relationships would not survive if those values were denied during working hours. Moreover, as mentioned above, participatory communities would be hard pressed to survive the pressure that big business would subject them to.

Needless to say, the economic and social aspects of life cannot be considered in isolation. For example, the negative results of workplace hierarchy and its master-servant dynamic will hardly remain there. Given the amount of time that most people spend working, the political importance of turning it into a training ground for the development of libertarian values can scarcely be overstated. As history has demonstrated, political revolutions that are not based upon social changes and mass psychological transformation — that is, by a deconditioning from the master/slave attitudes absorbed from the current system — result only in the substitution of new ruling elites for the

This means that local communities will generate social and economic policies tailored to their own unique ecological circumstances, in co-operation with others (it is important stress that eco-communes do not imply supporting local selfsufficiency and economic autarchy as values in themselves). Decisions that have regional impact are worked out by confederations of local assemblies, so that everybody affected by a decision can participate in making it. Such a system would be self-sufficient as workplace and community participation would foster creativity, spontaneity, responsibility, independence, and respect for individuality – the qualities needed for a self-management to function effectively. Just as hierarchy shapes those subject to it in negative ways, participation would shape us in positive ways which would strengthen our individuality and enrich our freedom and interaction with others and nature.

That is not all. The communal framework would also impact on how industry would develop. It would allow ecotechnologies to be prioritised in terms of R&D and subsidised in terms of consumption. No more would green alternatives and eco-technologies be left unused simply because most people cannot afford to buy them nor would their development be under-funded simply because a capitalist sees little profit form it or a politician cannot see any benefit from it. It also means that the broad outlines of production are established at the community assembly level while they are implemented in practice by smaller collective bodies which also operate on an egalitarian, participatory, and democratic basis. Co-operative workplaces form an integral part of this process, having control over the production process and the best way to implement any general outlines.

It is for these reasons that anarchists argue that common ownership combined with a use-rights based system of possession is better for the environment as it allows everyone the right to take action to stop pollution, not simply those who are environmental impact, it cannot stop the long-term destruction of our planet as the ecological crisis is "systemic — and not a matter of misinformation, spiritual insensitivity, or lack of moral integrity. The present social illness lies not only in the outlook that pervades the present society; it lies above all in the very structure and law of life in the system itself, in its imperative, which no entrepreneur or corporation can ignore without facing destruction: growth, more growth, and still more growth." [Murray Bookchin, "The Ecological Crisis, Socialism, and the need to remake society," pp. 1–10, Society and Nature, vol. 2, no. 3, pp. 2–3] This can only be ended by ending capitalism, not by appeals to consumers to buy eco-friendly products or to capitalists to provide them:

"Accumulation is determined not by the good or bad intentions of the individual bourgeois, but by the commodity relationship itself ... It is not the perversity of the bourgeois that creates production for the sake of production, but the very market nexus over which he presides and to which he succumbs... It requires a grotesque self-deception, or worse, an act of ideological social deception, to foster the belief that this society can undo its very law of life in response to ethical arguments or intellectual persuasion." [Toward an Ecological Society, p. 66]

Sadly, much of what passes for the green movement is based on this kind of perspective. At worse, many environmentalists place their hopes on green consumerism and education. At best, they seek to create green parties to work within the state to pass appropriate regulations and laws. Neither option gets to the core of the problem, namely a system in which there are "oppressive human beings who literally own society and others who are owned by it. Until society can be reclaimed by an undivided humanity that will use its collective wisdom, cultural achieve-

ments, technological innovations, scientific knowledge, and innate creativity for its own benefit and for that of the natural world, all ecological problems will have their roots in social problems." [Bookchin, Remaking Society, p. 39]

bility of capital, laws passed under capitalism to protect the environment have to be created and implemented by the central government to be effective. Yet the state, as discussed in section E.1, is a centralised structure unsuited to the task of collecting and processing the information and knowledge required to customise decisions to local ecological and social circumstances. This means that legislation, precisely due to its scope, cannot be finely tuned to local conditions (and so can generate local opposition, particularly if whipped up by corporate front organisations). In an eco-anarchist society, decentralisation would not have the threat of economic power hanging over it and so decisions would be reached which reflected the actual local needs of the population. As they would be unlikely to want to pollute themselves or their neighbours, eco-anarchists are confident that such local empowerment will produce a society which lives with, rather than upon, the environment.

Thus eco-communities (or eco-communes) are a key aspect of an ecotopia. Eco-communes, Bookchin argued, will be "networked confederally through ecosystems, bioregions, and biomes" and be "artistically tailored to their naturally surrounding. We can envision that their squares will be interlaced by streams, their places of assembly surrounded by groves, their physical contours respected and tastefully landscaped, their soils nurtured caringly to foster plant variety for ourselves, our domestic animals, and wherever possible the wildlife they may support on their fringes." They would be decentralised and "scaled to human dimensions," using recycling as well as integrating "solar, wind, hydraulic, and methane-producing installations into a highly variegated pattern for producing power. Agriculture, aquaculture, stockraising, and hunting would be regarded as crafts — an orientation that we hope would be extended as much as possible to the fabrication of use-values of nearly all kinds. The need to mass-produce goods in highly mechanised installations would be vastly diminished by the communities' overwhelming emphasis on quality and permanence." [The Ecology of Freedom, p. 444]

nities will be decentralised and freely give of their resources without the use of money.

As a natural compliment to workplace self-management, eco-anarchists propose communal self-management. So, although it may have appeared that we focus our attention on the economic aspects of the ecological crisis and its solution, this is not the case. It should always be kept in mind that all anarchists see that a complete solution to our many ecological and social problems must be multi-dimensional, addressing all aspects of the total system of hierarchy and domination. This means that only anarchism, with its emphasis on the elimination of authority in all areas of life, goes to the fundamental root of the ecological crisis.

The eco-anarchist argument for direct (participatory) democracy is that effective protection of the planet's ecosystems requires that all people are able to take part at the grassroots level in decision-making that affects their environment, since they are more aware of their immediate eco-systems and more likely to favour stringent environmental safeguards than politicians, state bureaucrats and the large, polluting special interests that now dominate the "representative" system of government. Moreover, real change must come from below, not from above as this is the very source of the social and ecological problems that we face as it divests individuals, communities and society as a whole of their power, indeed right, to shape their own destinies as well as draining them of their material and "spiritual" resources (i.e., the thoughts, hopes and dreams of people).

Simply put, it should be hardly necessary to explore in any great depth the sound ecological and social reasons for decentralising decision making power to the grassroots of society, i.e. to the people who have to live with the decisions being reached. The decentralised nature of anarchism would mean that any new investments and proposed solutions to existing problems would be tailored to local conditions. Due to the mo-

# E.2 What do eco-anarchists propose instead of capitalism?

Given what eco-anarchists consider to be the root cause of our ecological problems (as discussed in the last section), it should come as no surprise that they think that the current ecological crisis can only be really solved by eliminating those root causes, namely by ending domination within humanity and creating an anarchist society. So here we will summarise the vision of the free society eco-anarchists advocate before discussing the limitations of various non-anarchist proposals to solve environmental problems in subsequent sections.

However, before so doing it is important to stress that ecoanarchists consider it important to fight against ecological and social problems today. Like all anarchists, they argue for direct action and solidarity to struggle for improvements and reforms under the current system. This means that eco-anarchism "supports every effort to conserve the environment" in the here and now. The key difference between them and environmentalists is that eco-anarchists place such partial struggles within a larger context of changing society as a whole. The former is part of "waging a delaying action against the rampant destruction of the environment" the other is "a create movement to totally revolutionise the social relations of humans to each other and of humanity to nature." [Murray Bookchin, Toward an Ecological Society, p. 43] This is one of the key differences between an ecological perspective and an environmental one (a difference discussed in section E.1.2). Finding ways to resist capitalism's reduction of the living world to resources and com-

modities and its plunder of the planet, our resistance to specific aspects of an eco-cidal system, are merely a starting point in the critique of the whole system and of a wider struggle for a better society. As such, our outline of an ecological society (or ecotopia) is not meant to suggest an indifference to partial struggles and reforms within capitalism. It is simply to indicate why anarchists are confident that ending capitalism and the state will create the necessary preconditions for a free and ecologically viable society.

This perspective flows from the basic insight of ecoanarchism, namely that ecological problems are not separate from social ones. As we are part of nature, it means that how we interact and shape with it will be influenced by how we interact and shape ourselves. As Reclus put it "every people gives, so to speak, new clothing to the surrounding nature. By means of its fields and roads, by its dwelling and every manner of construction, by the way it arranges the trees and the landscape in general, the populace expresses the character of its own ideals. If it really has a feeling for beauty, it will make nature more beautiful. If, on the other hand, the great mass of humanity should remain as it is today, crude, egoistic and inauthentic, it will continue to mark the face of the earth with its wretched traces. Thus will the poet's cry of desperation become a reality: 'Where can I flee? Nature itself has become hideous." In order to transform how we interact with nature, we need to transform how we interact with each other. "Fortunately," Reclus notes, "a complete alliance of the beautiful and the useful is possible." [quoted by Clark and Martin (eds.), Anarchy, Geography, Modernity, p. 125 and p. 28]

Over a century later, Murray Bookchin echoed this insight:

"The views advanced by anarchists were deliberately called **social** ecology to emphasise that major ecological problems have their roots in social problems — problems that go back to the very beginnings

For an ecological society to work, it requires the active participation of those doing productive activity. They are often the first to be affected by industrial pollution and have the best knowledge of how to stop it happening. As such, workplace self-management is an essential requirement for a society which aims to life in harmony with its surrounds (and with itself, as a key aspect of social unfreedom would be eliminated in the form of wage slavery).

For these reasons, libertarian socialism based on producer co-operatives is essential for the type of economy necessary to solve the ecological crisis. These all feed directly into the green vision as "ecology points to the necessity of decentralisation, diversity in natural and social systems, human-scale technology, and an end to the exploitation of nature." [John Clark, The Anarchist Moment, p. 115] This can only be achieved on a society which bases itself on workers' self-management as this would facilitate the decentralisation of industries in ways which are harmonious with nature.

So far, all forms of social anarchism are in agreement. However, eco-anarchists tend to be communist-anarchists and oppose both mutualism and collectivism. This is because workers' ownership and self-management places the workers of an enterprise in a position where they can become a particularistic interest within their community. This may lead to these firms acting purely in their own narrow interests and against the local community. They would be, in other words, outside of community input and be solely accountable to themselves. This could lead to a situation where they become "collective capitalists" with a common interest in expanding their enterprises, increasing their "profits" and even subjecting themselves to irrational practices to survive in the market (i.e., harming their own wider and long-term interests as market pressures have a distinct tendency to produce a race to the bottom - see section I.1.3 for more discussion). This leads most eco-anarchists to call for a confederal economy and society in which commu-

sure to grow. Moreover, when introducing technological innovations or facing declining decline for goods, a self-managed workplace would be more likely to increase leisure time among producers rather than increase workloads or reduce numbers of staff.

This means that rather than produce a few big firms, a worker-controlled economy would tend to create an economy with more small and medium sized workplaces. This would make integrating them into local communities and ecosystems far easier as well as making them more easily dependent on green sources of energy. Then there are the other ecological advantages to workers' self-management beyond the relative lack of expansion of specific workplaces and the decentralisation this implies. These are explained well by market socialist David Schweickart:

"To the extent that emissions affect the workers directly on the job (as they often do), we can expect a self-managed firm to pollute less. Workers will control the technology; it will not be imposed on them from without.

"To the extent that emissions affect the local community, they are likely to be less severe, for two reasons. Firstly, workers (unlike capitalist owners) will necessarily live nearby, and so the decision-makers will bear more of the environmental costs directly. Second ... a self-managed firm will not be able to avoid local regulation by running away (or threatening to do so). The great stick that a capitalist firm holds over the head of a local community will be absent. Hence absent will be the macrophenomenon of various regions of the country trying to compete for firms by offering a 'better business climate' (i.e. fewer environmental restrictions)." [Op. Cit., p. 145]

of patricentric culture itself. The rise of capitalism, with a law of life based on competition, capital accumulation, and limitless growth, brought these problems — ecological and social — to an acute point; indeed, one that was unprecedented in any prior epoch of human development. Capitalist society, by recycling the organise world into an increasingly inanimate, inorganic assemblage of commodities, was destined to simplify the biosphere, thereby cutting across the grain of natural evolution with its ageslong thrust towards differentiation and diversity.

"To reverse this trend, capitalism had to be replaced by an ecological society based on non-hierarchical relationships, decentralised communities, eco-technologies like solar power, organic agriculture, and humanly scaled industries — in short, by face-to-face democratic forms of settlement economically and structurally tailored to the ecosystems in which they were located." [Remaking Society, pp. 154–5]

The vision of an ecological society rests on the obvious fact that people can have both positive and negative impacts on the environment. In current society, there are vast differences and antagonisms between privileged whites and people of colour, men and women, rich and poor, oppressor and oppressed. Remove those differences and antagonisms and our interactions with ourselves and nature change radically. In other words, there is a vast difference between free, non-hierarchical, class, and stateless societies on the one hand, and hierarchical, classridden, statist, and authoritarian ones and how they interact with the environment.

Given the nature of ecology, it should come as no surprise that social anarchists have been at the forefront of ecoanarchist theory and activism. It would be fair to say that most

eco-anarchists, like most anarchists in general, envision an ecotopia based on communist-anarchist principles. This does not mean that individualist anarchists are indifferent to environmental issues, simply that most anarchists are unconvinced that such solutions will actually end the ecological crisis we face. Certain of the proposals in this section are applicable to individualist anarchism (for example, the arguments that cooperatives will produce less growth and be less likely to pollute). However, others are not. Most obviously, arguments in favour of common ownership and against the price mechanism are not applicable to the market based solutions of individualist anarchism. It should also be pointed out, that much of the eco-anarchist critique of capitalist approaches to ecological problems are also applicable to individualist and mutualist anarchism as well (particularly the former, as the latter does recognise the need to regulate the market). While certain aspects of capitalism would be removed in an individualist anarchism (such as massive inequalities of wealth, capitalist property rights as well as direct and indirect subsidies to big business), it is still has the informational problems associated with markets as well as a growth orientation.

Here we discuss the typical eco-anarchist view of a free ecological society, namely one rooted in social anarchist principles. Eco-anarchists, like all consistent anarchists advocate workers' self-management of the economy as a necessary component of an ecologically sustainable society. This usually means society-wide ownership of the means of production and all productive enterprises self-managed by their workers (as described further in section I.3). This is a key aspect of making a truly ecological society. Most greens, even if they are not anarchists, recognise the pernicious ecological effects of the capitalist "grow or die" principle; but unless they are also anarchists, they usually fail to make the connection between that principle and the hierarchical form of the typical capitalist corporation. The capitalist firm, like the state, is centralised, top-down and autocratic.

These are the opposite of what an ecological ethos would suggest. In contrast, eco-anarchists emphasise the need for socially owned and worker self-managed firms.

This vision of co-operative rather than hierarchical production is a common position for almost all anarchists. Communist and non-communist social anarchists, like mutualists and collectivists, propose co-operative workplaces but differ in how best to distribute the products produced. The former urge the abolition of money and sharing according to need while the latter see income related to work and surpluses are shared equally among all members. Both of these systems would produce workplaces which would be under far less pressure toward rapid expansion than the traditional capitalist firm (as individualist anarchism aims for the abolition of rent, profit and interest it, too, will have less expansive workplaces).

The slower growth rate of co-operatives has been documented in a number of studies, which show that in the traditional capitalist firm, owners' and executives' percentage share of profits greatly increases as more employees are added to the payroll. This is because the corporate hierarchy is designed to facilitate exploitation by funnelling a disproportionate share of the surplus value produced by workers to those at the top of the pyramid (see section C.2) Such a design gives ownership and management a very strong incentive to expand, since, other things being equal, their income rises with every new employee hired. [David Schweickart, Against Capitalism, pp. 153–4] Hence the hierarchical form of the capitalist corporation is one of the main causes of runaway growth as well as social inequality and the rise of big business and oligopoly in the so-called "free" market.

By contrast, in an equal-share worker co-operative, the addition of more members simply means more people with whom the available pie will have to be equally divided — a situation that immensely reduces the incentive to expand. Thus a libertarian-socialist economy will not be under the same pres-

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institutions and distributional conflicts — willing to pay measures, actual or hypothetical, consider preferences of the higher income groups [as] more important than those of lower ones. If the people damaged are poor, the monetary measure of the cost of damage will be lower — 'the poor sell cheap.'" [Markets, Deliberation and Environment, pp. 58–9]

Economic power also impacts on the types of contracts people make. It does not take too much imagination to envision the possibility that companies may make signing waivers that release it from liability a condition for working there. This could mean, for example, a firm would invest (or threaten to move production) only on condition that the local community and its workers sign a form waiving the firm of any responsibility for damages that may result from working there or from its production process. In the face of economic necessity, the workers may be desperate enough to take the jobs and sign the waivers. The same would be the case for local communities, who tolerate the environmental destruction they are subjected to simply to ensure that their economy remains viable. This already happens, with some companies including a clause in their contracts which states the employee cannot join a union.

Then there is the threat of legal action by companies. "Every year," records green Sharon Beder, "thousands of Americans are sued for speaking out against governments and corporations. Multi-million dollar law suits are being filed against individual citizens and groups for circulating petitions, writing to public officials, speaking at, or even just attending, public meetings, organising a boycott and engaging in peaceful demonstrations." This trend has spread to other countries and the intent is the same: to silence opposition and undermine campaigns. This tactic is called a SLAPP (for "Strategic Lawsuits Against Public Participation") and is a civil court action which does not seek to win compensation but rather aims "to harass, intim-

idate and distract their opponents ... They win the political battle, even when they lose the court case, if their victims and those associated with them stop speaking out against them." This is an example of economic power at work, for the cost to a firm is just part of doing business but could bankrupt an individual or environmental organisation. In this way "the legal system best serves those who have large financial resources at their disposal" as such cases take "an average of three years to be settled, and even if the person sued wins, can cost tens of thousands of dollars in legal fees. Emotional stress, disillusionment, diversion of time and energy, and even divisions within families, communities and groups can also result." [Global Spin, pp. 63–7]

A SLAPP usually deters those already involved from continuing to freely participate in debate and protest as well as deterring others from joining in. The threat of a court case in the face of economic power usually ensures that SLAPPS do not go to trial and so its objective of scaring off potential opponents usually works quickly. The reason can be seen from the one case in which a SLAPP backfired, namely the McLibel trial. After successfully forcing apologies from major UK media outlets like the BBC, Channel 4 and the Guardian by threatening legal action for critical reporting of the company, Mc-Donald's turned its attention to the small eco-anarchist group London Greenpeace (which is not affiliated with Greenpeace International). This group had produced a leaflet called "What's Wrong with McDonald's" and the company sent spies to its meetings to identify people to sue. Two of the anarchists refused to be intimidated and called McDonald's bluff. Representing themselves in court, the two unemployed activists started the longest trial in UK history. After three years and a cost of around £10 million, the trial judge found that some of the claims were untrue (significantly, McDonald's had successfully petitioned the judge not to have a jury for the case, arguing that the issues were too complex for the public to understand). While the case was a public relations disaster for the company,

McDonald's keeps going as before using the working practices exposed in the trial and remains one of the world's largest corporations confident that few people would have the time and resources to fight SLAPPs (although the corporation may now think twice before suing anarchists!).

Furthermore, companies are known to gather lists of known "trouble-makers" These "black lists" of people who could cause companies "trouble" (i.e., by union organising or suing employers over "property rights" issues) would often ensure employee "loyalty," particularly if new jobs need references. Under wage labour, causing one's employer "problems" can make one's current and future position difficult. Being black-listed would mean no job, no wages, and little chance of being re-employed. This would be the result of continually suing in defence of one's property rights — assuming, of course, that one had the time and money necessary to sue in the first place. Hence workingclass people are a weak position to defend their rights under capitalism due to the power of employers both within and without the workplace. All these are strong incentives not to rock the boat, particularly if employees have signed a contract ensuring that they will be fired if they discuss company business with others (lawyers, unions, media, etc.).

Economic power producing terrible contracts does not affect just labour, it also effects smaller capitalists as well. As we discussed in section C.4, rather than operating "efficiently" to allocate resources within perfect competition any real capitalist market is dominated by a small group of big companies who make increased profits at the expense of their smaller rivals. This is achieved, in part, because their size gives such firms significant influence in the market, forcing smaller companies out of business or into making concessions to get and maintain contracts.

The negative environmental impact of such a process should be obvious. For example, economic power places immense pressures towards monoculture in agriculture. In the UK the market is dominated by a few big supermarkets. Their suppliers are expected to produce fruits and vegetables which meet the requirements of the supermarkets in terms of standardised products which are easy to transport and store. The large-scale nature of the operations ensure that farmers across Britain (indeed, the world) have to turn their farms into suppliers of these standardised goods and so the natural diversity of nature is systematically replaced by a few strains of specific fruits and vegetables over which the consumer can pick. Monopolisation of markets results in the monoculture of nature.

This process is at work in all capitalist nations. In American, for example, the "centralised purchasing decisions of the large restaurant chains and their demand for standardised products have given a handful of corporations an unprecedented degree of power over the nation's food supply ... obliterating regional differences, and spreading identical stores throughout the country ... The key to a successful franchise ... can be expressed in one world: 'uniformity.'" This has resulted in the industrialisation of food production, with the "fast food chains now stand[ing] atop a huge food-industrial complex that has gained control of American agriculture ... large multinationals ... dominate one commodity market after another ... The fast food chain's vast purchasing power and their demand for a uniform product have encouraged fundamental changes in how cattle are raised, slaughter, and processed into ground beef. These changes have made meatpacking ... into the most dangerous job in the United States ... And the same meat industry practices that endanger these workers have facilitated the introduction of deadly pathogens ... into America's hamburger meat." [Eric Schlosser, Fast Food Nation, p. 5 and pp. 8-9]

Award winning journalist Eric Schlosser has presented an excellent insight in this centralised and concentrated food-industrial complex in his book Fast Food Nation. Schlosser, of course, is not alone in documenting the fundamentally antiecological nature of the capitalism and how an alienated soci-

Few anarchists consider a social revolution as simply expropriating current industry and running it more or less as it is now. While expropriating the means of life is a necessary first step, it is only the start of a process in which we transform the way we interact with nature (which, of course, includes people).

To conclude, as Bradford summarises the "salvation of the marvellous green planet, our Mother Earth, depends on the liberation of women — and children, and men — from social domination, exploitation and hierarchy. They must go together." [Op. Cit., p. 68] By focusing attention away from the root causes of ecological and social disruption — i.e. capitalism and hierarchy — and onto their victims, the advocates of the "population myth" do a great favour to the system that creates mindless growth. Hence the population myth will obviously find favour with ruling elites, and this — as opposed to any basis for the myth in scientific fact — will ensure its continual reappearance in the media and education.

World people, or people in the First World — in which everyone is brought into complicity with powerful corporate elites in producing environmental dislocations. In this way, the social roots of ecological problems are shrewdly obscured ... [W]e can dismiss or explain away hunger, misery, or illness as 'natural checks' that are imposed on human beings to retain the 'balance of nature.' We can comfortably forget that much of the poverty and hunger that afflicts the world has its origins in the corporate exploitation of human beings and nature — in agribusiness and social oppression." [Op. Cit., pp. 9–10]

Looking at population numbers simply misses the point. As Murray Bookchin argues, this "arithmetic mentality which disregards the social context of demographics is incredibly shortsighted. Once we accept without any reflection or criticism that we live in a 'grow-or-die' capitalistic society in which accumulation is literally a law of economic survival and competition is the motor of 'progress,' anything we have to say about population is basically meaningless. The biosphere will eventually be destroyed whether five billion or fifty million live on the planet. Competing firms in a 'dog-eat-dog' market must outproduce each other if they are to remain in existence. They must plunder the soil, remove the earth's forests, kill off its wildlife, pollute its air and waterways not because their intentions are necessarily bad, although they usually are ... but because they must simply survive. Only a radical restructuring of society as a whole, including its anti-ecological sensibilities, can remove this all commanding social compulsion." ["The Population Myth", pp. 30-48, Op. Cit., p. 34] A sane society would not be driven by growth for the sake of growth and would aim to reduce production by reducing the average working week to ensure both an acceptable standard of living plus time to enjoy it. So it is not a case that the current industrial system is something we need to keep. ety has created an alienated means of feeding itself. As a nonanarchist, he does fail to drawn the obvious conclusion (namely abolish capitalism) but his book does present a good overview of the nature of the processed at work and what drives them. Capitalism has created a world where even the smell and taste of food is mass produced as the industrialisation of agriculture and food processing has lead to the product (it is hard to call it food) becoming bland and tasteless and so chemicals are used to counteract the effects of producing it on such a scale. It is standardised food for a standardised society. As he memorably notes: "Millions of ... people at that very moment were standing at the same counter, ordering the same food from the same menu, food that tasted everywhere the same." The Orwellian world of modern corporate capitalism is seen in all its glory. A world in which the industry group formed to combat Occupational Safety and Health Administration regulation is called "Alliance for Workplace Safety" and where the processed food's taste has to have the correct "mouthfeel." Unsurprisingly, the executives of these companies talk about "the very essence of freedom" and yet their corporation's "first commandant is that only production counts ... The employee's duty is to follow orders. Period." In this irrational world, technology will solve all our problems, even the ones it generates itself. For example, faced with the serious health problems generated by the industrialisation of meat processing, the meatpacking industry advocated yet more technology to "solve" the problems caused by the existing technology. Rather than focusing on the primary causes of meat contamination, they proposed irradiating food. Of course the firms involved want to replace the word "irradiation" with the phrase "cold pasteurisation" due to the public being unhappy with the idea of their food being subject to radiation.

All this is achievable due to the economic power of fewer and fewer firms imposing costs onto their workers, their customers and, ultimately, the planet.

The next obvious factor associated with economic power are the pressures associated with capital markets and mobility. Investors and capitalists are always seeking the maximum return and given a choice between lower profits due to greater environmental regulation and higher profits due to no such laws, the preferred option will hardly need explaining. After all, the investor is usually concerned with the returns they get in their investment, not in its physical condition nor in the overall environmental state of the planet (which is someone else's concern). This means that investors and companies interest is in moving their capital to areas which return most money, not which have the best environmental impact and legacy. Thus the mobility of capital has to be taken into account. This is an important weapon in ensuring that the agenda of business is untroubled by social concerns and environmental issues. After all, if the owners and managers of capital consider that a state's environmental laws too restrictive then it can simply shift investments to states with a more favourable business climate. This creates significant pressures on communities to minimise environmental protection both in order to retain existing business and attract new ones.

Let us assume that a company is polluting a local area. It is usually the case that capitalist owners rarely live near the workplaces they own, unlike workers and their families. This means that the decision makers do not have to live with the consequences of their decisions. The "free market" capitalist argument would be, again, that those affected by the pollution would sue the company. We will assume that concentrations of wealth have little or no effect on the social system (which is a highly unlikely assumption, but never mind). Surely, if local people did successfully sue, the company would be harmed economically — directly, in terms of the cost of the judgement, indirectly in terms of having to implement new, eco-friendly processes. Hence the company would be handicapped in com-

the centrepiece. "Population control is substituted for social justice, and the problem is actually aggravated by the Malthusian 'cure'," points out feminist Betsy Hartmann. [quoted by Bradford, Op. Cit., p. 77]

After all, there is enough food to feed the world's population but its distribution reflects inequalities in wealth, power and effective demand (this is most obviously seen when food is exported from famine areas as there is no effective demand for it there, a sadly regular occurrence). The "myth that population increases in places like the Sudan, for example, result in famine" can only survive if we ignore "the notorious fact that the Sudanese could easily feed themselves if they were not forced by the American-controlled World Bank and International Monetary Fund to grow cotton instead of grains." [Bookchin, Remaking Society, p. 11] Hence the importance of class analysis and an awareness of hierarchy. We can hardly talk of "our" resources when those resources are owned by a handful of giant corporations. Equally, we cannot talk about "our" industrial impact on the planet when the decisions of industry are made by a bosses and most of us are deliberately excluded from the decision making process. While it makes sense for the ruling elite to ignore such key issues, it counter-productive for radicals to do so and blame "people" or their numbers for social and environmental problems:

"The most striking feature of such way of thinking is not only that it closely parallels the way of thinking that is found in the corporate world. What is more serious is that it serves to deflect our attention from the role society plays in producing ecological breakdown. If 'people' as a **species** are responsible for environmental dislocations, these dislocations cease to be the result of **social** dislocations. A mythic 'Humanity' is created — irrespective of whether we are talking about oppressed minorities, women, Third

exhausted? How? Why? And by whom? As such, it is important to remember that this "standard of living" is a product of an hierarchical system which produces an alienated society in which consumption for the sake of consumption is the new god. In a grow-or-die economy, production and consumption must keep increasing to prevent economic collapse. This need for growth leads to massive advertising campaigns to indoctrinate people with the capitalist theology that more and more must be consumed to find "happiness" (salvation), producing consumerist attitudes that feed into an already-present tendency to consume in order to compensate for doing boring, pointless work in a hierarchical workplace. Unless a transformation of values occurs that recognises the importance of living as opposed to consuming, the ecological crisis will get worse. It is impossible to imagine such a radical transformation occurring under capitalism and so a key aim of eco-anarchists is to encourage people to consider what they need to live enriched, empowering and happy lives rather than participate in the rat race capitalism produces (even if you do win, you remain a rat).

Nor it cannot be denied that developments like better health care, nutrition, and longer lifespans contribute to overpopulation and are made possible by "industry." But to see such developments as primary causes of population growth is to ignore the central role played by poverty, the disruption of cultural patterns, and the need for cheap labour due to capitalism. There are always elevated birth rates associated with poverty, whether or not medical science improves significantly (for example, during the early days of capitalism). "Industrialism" is in fact a term used by liberal Greens (even when they call themselves "deep") who do not want to admit that the ecological crisis cannot be solved without the complete overthrow of capitalism, pretending instead that the system can become "green" through various band-aid reforms. "Controlling population growth" is always a key item on such liberals' agendas, taking the place of "eliminating capitalism," which should be

petition, and this would have obvious consequences for the local (and wider) economy.

This gives the company an incentive to simply move to an area that would tolerate the pollution if it were sued or even threatened with a lawsuit. Not only would existing capital move, but fresh capital would not invest in an area where people stand up for their rights. This — the natural result of economic power — would be a "big stick" over the heads of the local community. And when combined with the costs and difficulties in taking a large company to court, it would make suing an unlikely option for most people. That such a result would occur can be inferred from history, where we see that multinational firms have moved production to countries with little or no pollution laws and that court cases take years, if not decades, to process.

This is the current situation on the international market, where there is competition in terms of environment laws. Unsurprisingly, industry tends to move to countries which tolerate high levels of pollution (usually because of authoritarian governments which, like the capitalists themselves, simply ignore the wishes of the general population). Thus we have a market in pollution laws which, unsurprisingly, supplies the ability to pollute to meet the demand for it. This means that developing countries "are nothing but a dumping ground and pool of cheap labour for capitalist corporations. Obsolete technology is shipped there along with the production of chemicals, medicines and other products banned in the developed world. Labour is cheap, there are few if any safety standards, and costs are cut. But the formula of cost-benefit still stands: the costs are simply borne by others, by the victims of Union Carbide, Dow, and Standard Oil." [David Watson, Op. Cit., p. 44] This, it should be noted, makes perfect economic sense. If an accident happened and the poor actually manage to successfully sue the company, any payments will reflect their lost of earnings (i.e., not very much).

As such, there are other strong economic reasons for doing this kind of pollution exporting. You can estimate the value of production lost because of ecological damage and the value of earnings lost through its related health problems as well as health care costs. This makes it more likely that polluting industries will move to low-income areas or countries where the costs of pollution are correspondingly less (particularly compared to the profits made in selling the products in highincome areas). Rising incomes makes such goods as safety, health and the environment more valuable as the value of life is, for working people, based on their wages. Therefore, we would expect pollution to be valued less when working class people are affected by it. In other words, toxic dumps will tend to cluster around poorer areas as the costs of paying for the harm done will be much less. The same logic underlies the arguments of those who suggest that Third World countries should be dumping grounds for toxic industrial wastes since life is cheap there

This was seen in early 1992 when a memo that went out under the name of the then chief economist of the World Bank, Lawrence Summers, was leaked to the press. Discussing the issue of "dirty" Industries, the memo argued that the World Bank should "be encouraging MORE migration of the dirty indus*tries*" to Less Developed Countries and provided three reasons. Firstly, the "measurements of the costs of health impairing pollution depends on the foregone earnings from increased morbidity and mortality" and so "pollution should be done in the country with the lowest cost, which will be the country with the lowest wages." Secondly, "that under-populated countries in Africa are vastly UNDER-polluted, their air quality is probably vastly inefficiently low compared to Los Angeles or Mexico City." Thirdly, the "demand for a clean environment for aesthetic and health reasons is likely to have very high income elasticity." Concern over pollution related illness would be higher in a country where more children survive to get them. "Also, much of the concern

static and that the circumstances that produced historic growth and consumption rates will remain unchanged. This is obviously false, since humanity is not static. To quote Bookchin again:

"by reducing us to studies of line graphs, bar graphs, and statistical tables, the neo-Malthusians literally freeze reality as it is. Their numerical extrapolations do not construct any reality that is new; they mere extend, statistic by statistic, what is basically old and given ... We are taught to accept society, behaviour, and values as they are, not as they should be or even **could** be. This procedure places us under the tyranny of the status quo and divests us of any ability to think about radically changing the world. I have encountered very few books or articles written by neo-Malthusians that question whether we should live under any kind of money economy at all, any statist system of society, or be guided by profit oriented behaviour. There are books and articles aplenty that explain 'how to' become a 'morally responsible' banker, entrepreneur, landowner, 'developer,' or, for all I know, arms merchant. But whether the whole system called capitalism (forgive me!), be it corporate in the west or bureaucratic in the east, must be abandoned if we are to achieve an ecological society is rarely discussed." [Op. Cit., p. 33]

It is probably true that an "American" living standard is not possible for the population of the world at its present level (after all, the US consumes 40% of the world's resources to support only 5% of its population). For the rest of the world to enjoy that kind of standard of living we would require the resources of multiple Earths! Ultimately, anything which is not renewable is exhaustible. The real question is when will it be

it is possible to have more just societies with approximately the same living standards with significantly less consumption of resources and less pollution and waste produced. We need only compare America with Europe to see this. One could point out, for example, that Europeans enjoy more leisure time, better health, less poverty, less inequality and thus more economic security, greater intergenerational economic mobility, better access to high-quality social services like health care and education, and manage to do it all in a far more environmentally sustainable way (Europe generates about half the CO2 emissions for the same level of GDP) compared to the US.

In fact, even relatively minor changes in how we work can have significant impact. For example, two economists at the Center for Economic and Policy Research produced a paper comparing U.S. and European energy consumption and related it to hours worked. They concluded that if Americans chose to take advantage of their high level of productivity by simply shortening the workweek or taking longer holidays rather than producing more, there would follow a number of benefits. Specifically, if the U.S. followed Western Europe in terms of work hours then not only would workers find themselves with seven additional weeks of time off, the US would consume some 20% less energy and if this saving was directly translated into lower carbon emissions then it would have emitted 3% less carbon dioxide in 2002 than in 1990 (this level of emissions is only 4% above the negotiated target of the Kyoto Protocol). If Europe following IMF orthodoxy and increased working hours, this would have a corresponding negative impact on energy use and emissions (not to mention quality of life). [David Rosnick and Mark Weisbrot, Are Shorter Work Hours Good for the Environment?] Of course, any such choice is influenced by social institutions and pressures and, as such, part of a wider social struggle for change.

In other words, we must question the underlying assumption of the neo-Malthusians that society and technology are

over industrial atmosphere discharge is about visibility impairing particulates ... Clearly trade in goods that embody aesthetic pollution concerns could be welfare enhancing. While production is mobile the consumption of pretty air is a non-tradable." The memo notes "the economic logic behind dumping a load of toxic waste in the lowest wage country is impeccable and we should face up to that" and ends by stating that the "problem with the arguments against all of these proposals for more pollution" in the third world "could be turned around and used more or less effectively against every Bank proposal for liberalisation." [The Economist, 08/02/1992]

While Summers accepted the criticism for the memo, it was actually written by Lant Pritchett, a prominent economist at the Bank. Summers claimed he was being ironic and provocative. The Economist, unsurprisingly, stated "his economics was hard to answer" while criticising the language used. This was because clean growth may slower than allowing pollution to occur and this would stop "helping millions of people in the third world to escape their poverty." [15/02/1992] So not only is poisoning the poor with pollution is economically correct, it is in fact required by morality. Ignoring the false assumption that growth, any kind of growth, always benefits the poor and the utter contempt shown for both those poor themselves and our environment what we have here is the cold logic that drives economic power to move location to maintain its right to pollute our common environment. Economically, it is perfectly logical but, in fact, totally insane (this helps explain why making people "think like an economist" takes so many years of indoctrination within university walls and why so few achieve it).

Economic power works in other ways as well. A classic example of this at work can be seen from the systematic destruction of public transport systems in America from the 1930s onwards (see David St. Clair's **The Motorization of American** Cities for a well-researched account of this). These systems

were deliberately bought by automotive (General Motors), oil, and tire corporations in order to eliminate a less costly (both economically and ecologically) competitor to the automobile. This was done purely to maximise sales and profits for the companies involved yet it transformed the way of life in scores of cities across America. It is doubtful that if environmental concerns had been considered important at the time that they would have stopped this from happening. This means that individual consumption decisions will be made within an market whose options can be limited simply by a large company buying out and destroying alternatives.

Then there is the issue of economic power in the media. This is well understood by corporations, who fund PR, think-tanks and "experts" to counteract environmental activism and deny, for example, that humans are contributing to global warming. Thus we have the strange position that only Americans think that there is a debate on the causes of global warming rather than a scientific consensus. The actions of corporate funded "experts" and PR have ensured that particular outcome. As Sharon Beder recounts in her book Global Spin: The Corporate Assault on Environmentalism, a large amount of money is being spent on number sophisticated techniques to change the way people think about the environment, what causes the problems we face and what we can and should do about it. Compared to the resources of environmental and green organisations, it is unsurprising that this elaborate multi-billion pound industry has poisoned public debate on such a key issue for the future of humanity by propaganda and dis-information.

Having substantial resources available means that the media can be used to further an anti-green agenda and dominate the debate (at least for a while). Take, as an example, **The Skeptical Environmentalist**, a book by Bjørn Lomborg (a political scientist and professor of statistics at the University of Aarhus in Denmark). When it was published in 2001, it caused a sensation with its claims that scientists and environmental organ-

their old age. Eliminate economic insecurity and poverty, then people have less children.

Some Greens argue that it is impossible for **everyone** to have a high standard of living, as this would deplete available resources and place too much pressure on the environment. However, their use of statistics hides a sleight of hand which invalidates their argument. As Bookchin correctly argues:

"Consider the issue of population and food supply in terms of mere numbers and we step on a wild merrygo-round that does not support neo-Malthusian predictions of a decade ago, much less a generation ago. Such typically neo-Malthusian stunts as determining the 'per capita consumption' of steel, oil, paper, chemicals, and the like of a nation by dividing the total tonnage of the latter by the national population, such that every man, women, and child is said to 'consume' a resultant quantity, gives us a picture that is blatantly false and functions as a sheer apologia for the upper classes. The steel that goes into a battleship, the oil that is used to fuel a tank, and the paper that is covered by ads hardly depicts the human consumption of materials. Rather, it is stuff consumed by all the Pentagons of the world that help keep a 'grow-or-die economy in operation — goods, I may add, whose function is to destroy and whose destiny is to be destroyed." ["The Population Myth", pp. 30-48, Which Way for the Ecology Movement?, pp. 34–5]

Focusing on averages, in other words, misses out the obvious fact we live in a highly unequal societies which results in a few people using many resources. To talk about consumption and not to wonder how many Rolls Royces and mansions the "average" person uses means producing skewed arguments. Equally,

expression and selfhood for women that is the key to the destruction of hierarchy." In other words, women's "freedom and wellbeing are at the centre of the resolution to the population problem, and that can only be faced within the larger social context." That means "real participation in social decision-making, real health concerns, access to land, and the overthrow of patriarchal domination." [Op. Cit., p. 68 and p. 82] Bookchin makes the same point, noting that population growth rates have fallen in developed countries because "of the freedom that women have acquired over recent decades to transcend the role that patriarchy assigned to them as mere reproductive factories." ["The Future of the Ecology Movement," pp. 1–20, Which Way for the Ecology Movement?, p. 19]

This means that an **increase** of freedom will solve the population question. Sadly, many advocates of neo-Malthusianism extend control over people from women to all. The advocates of the "population myth," as well as getting the problem wrong, also (usually) suggest very authoritarian "solutions" — for example, urging an increase in state power with a "Bureau of Population Control" to "police" society and ensure that the state enters the bedroom and our most personal relationships. Luckily for humanity and individual freedom, since they misconceive the problem, such "Big Brother" solutions are not required.

So, it must be stressed the "population explosion" is not a neutral theory, and its invention reflected class interests at the time and continual use since then is due to its utility to vested interests. We should not be fooled into thinking that overpopulation is the main cause of the ecological crisis, as this is a strategy for distracting people from the root-cause of both ecological destruction and population growth today: namely, the capitalist economy and the inequalities and hierarchical social relationships it produces. As such, those who stress the issue of population numbers get it backward. Poverty causes high birth rates as people gamble on having large families so that some children will survive in order to look after the parents in

isations were making, at best, exaggerated and, at worse, false claims about the world's environmental problems. His conclusion was panglossian in nature, namely that there was not that much to worry about and we can continue as we are. That, of course, was music to the ears of those actively destroying the environment as it reduces the likelihood that any attempt will be made to stop them.

Unsurprisingly, the book was heavily promoted by the usual suspects and, as a result received significant attention from the media. However, the extremely critical reviews and critiques it subsequently produced from expert scientists on the issues Lomborg discussed were less prominently reviewed in the media, if at all. That critics of the book argued that it was hardly an example of good science based on objectivity, understanding of the underlying concepts, appropriate statistical methods and careful peer review goes without saying. Sadly, the fact that numerous experts in the fields Lomborg discussed showed that his book was seriously flawed, misused data and statistics and marred by flawed logic and hidden value judgements was not given anything like the same coverage even though this information is far more important in terms of shaping public perception. Such works and their orchestrated media blitz provides those with a vested interest in the status quo with arguments that they should be allowed to continue their antienvironmental activities and agenda. Moreover, it takes up the valuable time of those experts who have to debunk the claims rather than do the research needed to understand the ecological problems we face and propose possible solutions.

As well as spin and propaganda aimed at adults, companies are increasingly funding children's education. This development implies obvious limitations on the power of education to solve ecological problems. Companies will hardly provide teaching materials or fund schools which educate their pupils on the **real** causes of ecological problems. Unsurprisingly, a 1998 study in the US by the Consumers Union found that 80%

of teaching material provided by companies was biased and provided students with incomplete or slanted information that favoured its sponsor's products and views [Schlosser, Op. Cit., p. 55] The more dependent a school is on corporate funds, the less likely it will be to teach its students the necessity to question the motivations and activities of business. That business will not fund education which it perceives as anti-business should go without saying. As Sharon Beder summarises, "the infiltration of school curricula through banning some texts and offering corporate-based curriculum material and lesson plans in their place can conflict with educational objectives, and also with the attainment of an undistorted understanding of environmental problems." [Op. Cit., pp. 172–3]

This indicates the real problem of purely "educational" approaches to solving the ecological crisis, namely that the ruling elite controls education (either directly or indirectly). This is to be expected, as any capitalist elite must control education because it is an essential indoctrination tool needed to promote capitalist values and to train a large population of future wage-slaves in the proper habits of obedience to authority. Thus capitalists cannot afford to lose control of the educational system. And this means that such schools will not teach students what is really necessary to avoid ecological disaster: namely the dismantling of capitalism itself. And we may add, alternative schools (organised by libertarian unions and other associations) which used libertarian education to produce anarchists would hardly be favoured by companies and so be effectively black-listed — a real deterrent to their spreading through society. Why would a capitalist company employ a graduate of a school who would make trouble for them once employed as their wage slave?

Finally, needless to say, the combined wealth of corporations and the rich outweighs that of even the best funded environmental group or organisation (or even all of them put together). This means that the idea of such groups buying, say, rainforest

families had vested interests behind it, although working class people "have learned to see in large families a millstone around their necks, deliberately imposed upon them by the reactionary forces in society because a large family paralyses the brain and benumbs the muscles of the masses ... [The worker] continues in the rut, compromises and cringes before his master, just to earn barely enough to feed the many little mouths. He dare not join a revolutionary organisation; he dare not go on strike; he dare not express an opinion." ["The Social Aspects of Birth Control", Anarchy! An Anthology of Emma Goldman's Mother Earth, p. 135 and pp. 136-7] This support for birth control, it should be stressed, resulted in Goldman being arrested. Malthus, like many of his followers "opposed contraception as immoral, preferring to let the poor starve as a 'natural' method of keeping numbers down. For him, only misery, poverty, famine, disease, and war would keep population from expanding beyond the carrying capacity of the land." [Bradford, Op. Cit., p. 69]

Unsurprisingly, Goldman linked the issue of birth control to that of women's liberation arguing that "I never will acquiesce or submit to authority, nor will I make peace with a system which degrades woman to a mere incubator and which fattens on her innocent victims. I now and here declare war upon this system." The key problem was that woman "has been on her knees before the altar of duty imposed by God, by Capitalism, by the State, and by Morality" for ages. Once that changed, the issue of population would solve itself for "[a]fter all it is woman whom is risking her health and sacrificing her youth in the reproduction of the race. Surely she ought to be in a position to decide how many children she should bring into world, whether they should be brought into the world by the man she loves and because she wants the child, or should be born in hatred and loathing." [Op. Cit., p. 140 and p. 136]

Other anarchists have echoed this analysis. George Bradford, for example, correctly notes that "the way out of the [ecological] crisis lies in the practical opening toward freedom of self-

have a major impact on population growth. In countries with higher economic and cultural levels, population growth soon starts to fall off. Today, for example, much of Europe has seen birth rates fall beyond the national replacement rate. This is the case even in Catholic countries, which one would imagine would have religious factors encouraging large families.

To be clear, we are **not** saying that overpopulation is not a very serious problem. Obviously, population growth **cannot** be ignored or solutions put off until capitalism is eliminated. We need to immediately provide better education and access to contraceptives across the planet as well as raising cultural levels and increasing women's rights in order to combat overpopulation **in addition to** fighting for land reform, union organising and so on. Overpopulation only benefits the elite by keeping the cost of labour low. This was the position of the likes of Emma Goldman and other radicals of her time:

"Many working-class radicals accepted the logic that excessive numbers were what kept the poor in their misery. During the nineteenth century there were courageous attempts to disseminate birth-control information both to promote lower population and to make it possible for women to control their own reproductivity and escape male domination. Birth control was the province of feminism, radical socialism and anarchism." [Bradford, Op. Cit., p. 69]

Unlike many neo-Malthusians Goldman was well aware that social reasons explained why so many people went hungry. As she put it, "if the masses of people continue to be poor and the rich grow ever richer, it is not because the earth is lacking in fertility and richness to supply the need of an excessive race, but because the earth is monopolised in the hands of the few to the exclusion of the many." She noted that the promotion of large

is unlikely to succeed as they simply do not have the resources needed — they will be outbid by those who wish to develop wilderness regions. This is particularly the case once we accept the framework of economic self-interest assumed by market theory. This implies that organisations aiming to increase the income of individual's will be better funded than those whose aim is to preserve the environment for future generations. As recent developments show, companies can and do use that superior resources to wage a war for hearts and minds in all aspects of society, staring in the schoolroom. Luckily no amount of spin can nullify reality or the spirit of freedom and so this propaganda war will continue as long as capitalism does.

In summary, market solutions to environmental problems under capitalism will always suffer from the fact that real markets are marked by economic inequalities and power.

### E.3.3 Can capitalism's focus on short-term profitability deal with the ecological crisis?

No a word, no. This is another key problem associated with capitalism's ability to deal with the ecological crisis it helps create. Due to the nature of the market, firms are forced to focus on short-term profitability rather than long-term survival. This makes sense. If a company does not make money now, it will not be around later.

This, obviously, drives the creation of "externalities" discussed in previous sections. Harmful environmental effects such as pollution, global warming, ozone depletion, and destruction of wildlife habitat are not counted as "costs of production" in standard methods of accounting because they are borne by everyone in the society. This gives companies a strong incentive to ignore such costs as competition forces firms to cut as many costs as possible in order to boost short-term profits.

To give an obvious example, if a firm has to decide between installing a piece of costly equipment which reduces its pollution and continuing as it currently is, then it is more likely to do the latter. If the firm **does** invest then its costs are increased and it will lose its competitive edge compared to its rivals who do not make a similar investment. The "rational" decision is, therefore, not to invest, particularly if by externalising costs it can increase its profits or market share by cutting prices. In other words, the market rewards the polluters and this is a powerful incentive to maximise such activities. The market, in other words, provides incentives to firms to produce externalities as part their drive for short-term profitability. While this is rational from the firm's position, it is collectively irrational as the planet's ecology is harmed.

The short-term perspective can also be seen by the tendency of firms to under-invest in developing risky new technologies. This is because basic research which may take years, if not decades, to develop and most companies are unwilling to take on that burden. Unsurprisingly, most advanced capitalist countries see such work funded by the state (as we noted in section D.8, over 50% of total R&D funding has been provided by the federal state in the USA). Moreover, the state has provided markets for such products until such time as markets have appeared for them in the commercial sector. Thus capitalism, by itself, will tend to under-invest in long term projects:

"in a competitive system you do **short-term plan- ning only** ... Let's take corporate managers, where
there's no real confusion about what they're doing.
They are maximising profit and market share in the
short term. In fact, if they were not to do that, they
would no longer exist. Let's be concrete. Suppose that
some automobile company, say General Motors, decides to devote their resources to planning for something that will be profitable ten years from now. Sup-

"It's a betrayal of the entire message of social ecology to ask the world's poor to deny themselves access to the necessities of life on grounds that involve longrange problems of ecological dislocation, the shortcomings of 'high' technology, and very specious claims of natural shortages in materials, while saying nothing at all about the artificial scarcity engineered by corporate capitalism." [The Ecology of Freedom, p. 350]

In a country that is being introduced to the joys of capitalism by state intervention (the usual means by which traditional cultures and habits are destroyed to create a "natural system of liberty"), population soon explodes as a result of the poor social and economic conditions in which people find themselves. In the inner-city ghettos of the First World, social and economic conditions similar to those of the Third World give rise to similarly elevated birth rates. When ghetto populations are composed mostly of minorities, as in countries like the US, higher birth rates among the minority poor provides a convenient extra excuse for racism, "proving" that the affected minorities are "inferior" because they "lack self-control," are "mere animals obsessed with procreation," etc. Much the same was said of Irish Catholics in the past and, needless to say, such an argument ignores the fact that slum dwellers in, for example, Britain during the Industrial Revolution were virtually all white but still had high birth rates.

Population growth, far from being the cause of poverty, is in fact a result of it. There is an inverse relationship between per capita income and the fertility rate — as poverty decreases, so do the population rates. When people are ground into the dirt by poverty, education falls, women's rights decrease, and contraception is less available. Having children then becomes virtually the only survival means, with people resting their hopes for a better future in their offspring. Therefore social conditions

ownership, the history of colonialism, and where social power lies. So when the poor demand their rights, the Malthusians see 'political instability' growing from population pressure." [Woman's Freedom: Key to the Population Question, p. 77] Bookchin makes a similar critique:

"the most sinister feature about neo-Malthusianism is the extent to which it actively deflects us from dealing with the social origins of our ecological problems — indeed, the extent to which it places the blame for them on the victims of hunger rather than those who victimise them. Presumably, if there is a 'population problem' and famine in Africa, it is the ordinary people who are to blame for having too many children or insisting on living too long — an argument advanced by Malthus nearly two centuries ago with respect to England's poor. The viewpoint not only justifies privilege; it fosters brutalisation and degrades the neo-Malthusians even more than it degrades the victims of privilege." ["The Population Myth", pp. 30-48, Which Way for the Ecology Movement?, p. 34]

Increased population is not the cause of landlessness, it is the result of it. If a traditional culture, its values, and its sense of identity are destroyed, population growth rates increase dramatically. As in 17<sup>th</sup>- and 18<sup>th</sup>-century Britain, peasants in the Third World are kicked off their land by the local ruling elite, who then use the land to produce cash crops for export while their fellow country people starve. Like Ireland during the Potato Famine, the Third World nations most affected by famine have also been exporters of food to the developed nations. Malthusianism is handy for the wealthy, giving them a "scientific" excuse for the misery they cause so they can enjoy their blood-money without remorse. It is unwise for greens to repeat such arguments:

pose that's where they divert their resources: they want to think in some long-term conception of market dominance. Their rivals are going to maximising profit and power in the short term, and they're going to take over the market, and General Motors won't be in business. That's true for the owners and also for the managers. The managers want to stay managers. They can fight off hostile take-over bids, they can keep from being replaced, as long as they contribute to short-term profitability. As a result, long-term considerations are rarely considered in competitive systems." [Noam Chomsky, Language and Politics, p. 598]

This does not mean that firms will not look into future products nor do research and development. Many do (particularly if helped by the state). Nor does it imply that some industries do not have a longer-term perspective. It simply shows that such activity is not the normal state of affairs. Moreover, any such "long-term" perspective is rarely more than a decade while an ecological perspective demands much more than this. This also applies to agriculture, which is increasingly being turned into agribusiness as small farmers are being driven out of business. Short-termism means that progress in agriculture is whatever increases the current yield of a crop even if means destroying the sources of fertility in the long run in order to maintain current fertility by adding more and more chemicals (which run off into rivers, seep into the water table and end up in the food itself.

This kind of irrational short-term behaviour also afflicts capital markets as well. The process works in the same way Chomsky highlights. Suppose there are 3 companies, X, Y, and Z and suppose that company X invests in the project of developing a non-polluting technology within ten years. At the same time its competitors, Y and Z, will be putting their resources

into increasing profits and market share in the coming days and months and over the next year. During that period, company X will be unable to attract enough capital from investors to carry out its plans, since investors will flock to the companies that are most immediately profitable. This means that the default position under capitalism is that the company (or country) with the lowest standards enjoys a competitive advantage, and drags down the standards of other companies (or countries). Sometimes, though, capital markets experience irrational bubbles. During the dot.com boom of the 1990s, investors did plough money into internet start-ups and losses were tolerated for a few years in the expectation of high profits in the near future. When that did not happen, the stock market crashed and investors turned away from that market in droves. If something similar happened to eco-technologies, the subsequent aftermath may mean that funding essential for redressing our interaction with the environment would not be forthcoming until the memories of the crash had disappeared in the next bubble frenzy.

Besides, thanks to compound interest benefits far in the future have a very small present value. If \$1 were left in a bank at 5% annual interest, it would be worth more than \$2 million after 300 years. So if it costs \$1 today to prevent ecological damage worth \$2 million in the 24<sup>th</sup> century then economic theory argues that our descendants would be better off with us putting that \$1 in the bank. This would suggest that basing our responsibility to future generations on economics may not be the wisest course.

The supporter of capitalism may respond by arguing that business leaders are as able to see long-term negative environmental effects as the rest of us. But this is to misunderstand the nature of the objection. It is not that business leaders as individuals are any less able to see what's happening to the environment. It is that if they want to keep their jobs they have to do what the system requires, which is to concentrate on what is

fact, Malthus even went so far as to argue for the poor to be employed in building roads and public works! No mention of "excess" population there, which indicates well the ideological nature of his over-population theory. As McNally shows, it was the utility of Malthus's practical conclusions in his "Essay on the Principles of Population" for fighting the poor law and the right to subsistence (i.e. welfare provisions) which explained his popularity: "he made classical economics an open enemy of the working class." ["The Malthusian Moment: Political Economy versus Popular Radicalism", pp. 62–103, Against the Market, p. 85 and p. 91]

So it is easy to explain the support Malthus and his assertions got in spite of the lack of empirical evidence and the self-contradictory utterances of its inventor. Its support rests simply in its utility as a justification for the inhuman miseries inflicted upon the British people by "its" ruling class of aristocrats and industrialists was the only reason why it was given the time of day. Similarly today, its utility to the ruling class ensures that it keeps surfacing every so often, until forced to disappear again once the actual facts of the case are raised. That the population myth, like "genetic" justifications for race-, class- and gender-based oppression, keeps appearing over and over again, even after extensive evidence has disproved it, indicates its usefulness to the ideological guardians of the establishment.

Neo-Malthusianism basically blames the victims of capitalism for their victimisation, criticising ordinary people for "breeding" or living too long, thus ignoring (at best) or justifying (usually) **privilege** — the social root of hunger. To put it simply, the hungry are hungry because they are excluded from the land or cannot earn enough to survive. In Latin America, for example, 11% of the population was landless in 1961, by 1975 it was 40%. Approximately 80% of all Third World agricultural land is owned by 3% of landowners. As anarchist George Bradford stresses, Malthusians "do not consider the questions of land

form of Social Darwinism this was also used against working class people and social reform).

As Kropotkin summarised, Malthus work was "pernicious" in its influence. It "summed up ideas already current in the minds of the wealth-possessing minority" and arose to combat the "ideas of equality and liberty" awakened by the French and American revolutions. Malthus asserted against Godwin "that no equality is possible; that the poverty of the many is not due to institutions, but is a natural law." This meant he "thus gave the rich a kind of scientific argument against the ideas of equality." However, it was simply "a pseudo-scientific" assertion which reflected "the secret desires of the wealth-possessing classes" and not a scientific hypothesis. This is obvious as technology has ensured that Malthus's fears are "groundless" while they are continually repeated. [Fields, Factories and Workshops Tomorrow, p. 77, p. 78 and p. 79]

That the theory was fundamentally ideological in nature can be seen from Malthus himself. It is interesting to note that in contrast, and in direct contradiction to his population "theory," as an economist Malthus was worried about the danger of overproduction within a capitalist economy. He was keen to defend the landlords from attacks by Ricardo and had to find a reason for their existence. To do this, he attacked Say's Law (the notion that over-production was impossible in a free market economy). Utilising the notion of effective demand, he argued that capitalist saving caused the threat of over-production and it was the landlords luxury consumption which made up the deficit in demand this caused and ensured a stable economy. As Marxist David McNally points out, the "whole of this argument is completely at odds with the economic analysis" of his essay on population. According to that, the "chronic ... danger which confronts society is underproduction of food relative to people." In his economics book, the world "is threatened by overproduction. Rather than there being too little supply relative to demand, there is now too little demand relative to supply." In

most profitable in the short term. Thus if the president of company X has a mystical experience of oneness with nature and starts diverting profits into pollution control while the presidents of Y and Z continue with business as usual, the stockholders of company X will get a new president who is willing to focus on short-term profits like Y and Z. As Joel Bakan stresses, managers of corporations "have a legal duty to put shareholders' interests above all others ... Corporate social responsibility is thus illegal — at least when it is genuine." Ones which "choose social and environmental goals over profits — who try and act morally — are, in fact, immoral" as their role in both the economy and economic ideology is to "make much as much money as possible for shareholders." [The Corporation, pp. 36–7 and p. 34]

In general, then, if one company tries to devote resources to develop products or processes that are ecologically responsible, they will simply be undercut by other companies which are not doing so (assuming such products or processes are more expensive, as they generally are as the costs are not inflicted on other people and the planet). While some products may survive in small niche markets which reflect the fact that many people are willing and able to pay more to protect their world, in general they will not be competitive in the market and so the ecologically damaging products will have the advantage. In other words, capitalism has a built-in bias toward short-term gain, and this bias — along with its inherent need for growth — means the planet will continue its free-fall toward ecological disaster so long as capitalism exists.

This suggests that attempts to address ecological problems like pollution and depletion of resources by calling for public education are unlikely to work. While it is true that this will raise people's awareness to the point of creating enough demand for environment-friendly technologies and products that they will be profitable to produce, it does not solve the problem that the costs involved in doing such research now cannot be met by a possible future demand. Moreover, the costs of

such technology can initially be quite high and so the effective demand for such products may not be sufficient. For example, energy-saving light bulbs have been around for some time but have been far more expensive that traditional ones. This means that for those on lower-incomes who would, in theory, benefit most from lower-energy bills cannot afford them. Thus their short-term income constrains undermine long-term benefits.

Even if the research is completed, the market itself can stop products being used. For example, the ability to produce reasonably inexpensive solar photovoltaic power cells has existed for some time. The problem is that they are currently very expensive and so there is a limited demand for them. This means that no capitalist wants to risk investing in factory large enough to take advantage of the economies of scale possible. The net effect is that short-term considerations ensure that a viable eco-technology has been margainalised.

This means that no amount of education can countermand the effects of market forces and the short-term perspective they inflict on us all. If faced with a tight budget and relatively expensive "ecological" products and technology, consumers and companies may be forced to choose the cheaper, ecologically unfriendly product to make ends meet or survive in the market. Under capitalism, we may be free to choose, but the options are usually lousy choices, and not the only ones potentially available in theory (this is a key problem with green consumerism — see section E.5).

The short-termism of capitalism has produced, in effect, a system which is "a massive pyramid scheme that will collapse somewhere down the line when all the major players have already retired from the game. Of course when the last of these hustlers cash in their chips, there won't be any place left to retire to." [David Watson, Op. Cit., p. 57]

# E.6 What is the population myth?

The idea that population growth is the **key** cause of ecological problems is extremely commonplace. Even individuals associated with such radical green groups as **Earth First!** have promoted it. It is, however, a gross distortion of the truth. **Capitalism** is the main cause of both overpopulation **and** the ecological crisis.

Firstly, we should point out that all the "doomsday" prophets of the "population bomb" have been proved wrong time and time again. The dire predictions of Thomas Malthus, the originator of the population myth, have not come true, yet neo-Malthusians continue to mouth his reactionary ideas. In fact Malthus wrote his infamous "Essay on the Principles of Population" which inflicted his "law of population" onto the world in response to the anarchist William Godwin and other social reformers. In other words, it was explicitly conceived as an attempt to "prove" that social stratification, and so the status quo, was a "law of nature" and that poverty was the fault of the poor themselves, not the fault of an unjust and authoritarian socioeconomic system. As such, the "theory" was created with political goals in mind and as a weapon in the class struggle (as an aside, it should be noted that Darwin argued his theory of natural selection was "the doctrine of Malthus applied to the whole animal and vegetable kingdom." [quoted by Peter Marshall, Nature's Web, p. 320] In other words, anarchism, indirectly, inspired the theory of evolution. Perhaps unsurprisingly, in the

"Yes, we as individuals should change our lifestyles as much as possible, but it is the utmost short-sightedness to believe that that is all or even primarily what we have to do. We need to restructure the entire society, even as we engage in lifestyle changes and single-issue struggles against pollution, nuclear power plants, the excessive use of fossil fuels, the destruction of soil, and so forth. We must have a coherent analysis of the deep-seated hierarchical relationships and systems of domination, as well as class relationships and economic exploitation, that degrade people as well as the environment." ["The Ecological Crisis, Socialism, and the need to remake society," pp. 1–10, Society and Nature, vol. 2, no. 3, p. 4]

Using the capitalist market to combat the effects produced by that same market is no alternative. Until capitalism and the state are dismantled, solutions like ethical consumerism will be about as effective as fighting a forest fire with a water pistol. Such solutions are doomed to failure because they promote individual responses to social problems, problems that by their very nature require collective action, and deal only with the symptoms, rather than focusing on the cause of the problem in the first place. Real change comes from collective struggle, not individual decisions within the market place which cannot combat the cancerous growth principle of the capitalist economy. As such, ethical consumerism does not break from the logic of capitalism and so is doomed to failure.

## E.4 Can laissez-faire capitalism protect the environment?

In a word, no. Here we explain why using as our example the arguments of a leading right-"libertarian."

As discussed in the last section, there is plenty of reason to doubt the claim that private property is the best means available to protect the environment. Even in its own terms, it does not do so and this is compounded once we factor in aspects of any real capitalist system which are habitually ignored by supporters of that system (most obviously, economic power derived from inequalities of wealth and income). Rather than the problem being too little private property, our environmental problems have their source not in a failure to apply market principles rigorously enough, but in their very spread into more and more aspects of our lives and across the world.

That capitalism simply cannot have an ecological nature can be seen from the work of right-"libertarian" Murray Rothbard, an advocate of extreme laissez-faire capitalism. His position is similar to that of other free market environmentalists. As pollution can be considered as an infringement of the property rights of the person being polluted then the solution is obvious. Enforce "absolute" property rights and end pollution by suing anyone imposing externalities on others. According to this perspective, only absolute private property (i.e. a system of laissez-faire capitalism) can protect the environment.

This viewpoint is pretty much confined to the right-"libertarian" defenders of capitalism and those influenced by them. However, given the tendency of capitalists to appropri-

ate right-"libertarian" ideas to bolster their power much of Rothbard's assumptions and arguments have a wider impact and, as such, it is useful to discuss them and their limitations. The latter is made extremely easy as Rothbard himself has indicated why capitalism and the environment simply do not go together. While paying lip-service to environmental notions, his ideas (both in theory and in practice) are inherently anti-green and his solutions, as he admitted himself, unlikely to achieve their (limited) goals.

Rothbard's argument seems straight forward enough and, in theory, promises the end of pollution. Given the problems of externalities, of companies polluting our air and water resources, he argued that their root lie not in capitalist greed, private property or the market rewarding anti-social behaviour but by the government refusing to protect the rights of private property. The remedy is simple: privatise everything and so owners of private property would issue injunctions and pollution would automatically stop. For example, if there were "absolute" private property rights in rivers and seas their owners would not permit their pollution:

"if private firms were able to own the rivers and lakes ... then anyone dumping garbage ... would promptly be sued in the courts for their aggression against private property and would be forced by the courts to pay damages and to cease and desist from any further aggression. Thus, only private property rights will insure an end to pollution-invasion of resources. Only because rivers are unowned is there no owner to rise up and defend his precious resource from attack." [For a New Liberty, p. 255]

The same applies to air pollution:

"The remedy against air pollution is therefore crystal clear ... The remedy is simply for the courts to re-

logical Society, p. 81] This means that fighting ecological destruction today must be a social movement rather than one of individual consumption decisions or personalistic transformation. These can go on without questioning the ecocidal drive of capitalism which "will insidiously simplify the biosphere (making due allowances for 'wilderness' reserves and theme parks), steadily reduce the organic to the inorganic and the complex to the simple, and convert soil into sand — all at the expense of the biosphere's integrity and viability. The state will still be an everpresent means for keeping oppressed people at bay and will 'manage' whatever crises emerge as best it can. Ultimately, society will tend to become more and more authoritarian, public life will atrophy." [Bookchin, "The Future of the Ecology Movement," pp. 1–20, Which Way for the Ecology Movement?, p. 14]

All this is not to suggest that individual decisions on what to consume are irrelevant, far from it. Nor are consumer boycotts a waste of time. If organised into mass movements and linked to workplace struggle they can be very effective. It is simply to point out that individual actions, important as they are, are no solution to **social** problems. Thus Bookchin:

"The fact is that we are confronted by a thoroughly irrational social system, not simply by predatory individuals who can be won over to ecological ideas by moral arguments, psychotherapy, or even the challenges of a troubled public to their products and behaviour ... One can only commend the individuals who by virtue of their consumption habits, recycling activities. and appeals for a new sensibility undertake public activities to stop ecological degradation. Each surely does his or her part. But it will require a much greater effort — and organised, clearly conscious, and forward-looking political movement — to meet the basic challenges posed by our aggressively anti-ecological society.

ones. For example, Agent Orange (used as to defoliate forests during the Vietnam War by the US) is used as an herbicide in the Third World, as is DDT. Agent Orange contains one of the most toxic compounds known to humanity and was responsible for thousands of deformed children in Vietnam. Ciba-Geigy continued to sell Enterovioform (a drug which caused blindness and paralysis in at least 10,000 Japanese users of it) in those countries that permitted it to do so. Many companies have moved to developing countries to escape the stricter pollution and labour laws in the developed countries.

Neither does green consumerism question why it should be the ruling elites within capitalism that decide what to produce and how to produce it. Since these elites are driven by profit considerations, if it is profitable to pollute, pollution will occur. Moreover, green consumerism does not challenge the (essential) capitalist principle of consumption for the sake of consumption, nor can it come to terms with the fact that "demand" is created, to a large degree, by "suppliers," specifically by advertising agencies that use a host of techniques to manipulate public tastes, as well as using their financial clout to ensure that "negative" (i.e. truthful) stories about companies' environmental records do not surface in the mainstream media.

Because ethical consumerism is based wholly on market solutions to the ecological crisis, it is incapable even of recognising a key root cause of that crisis, namely the atomising nature of capitalism and the social relationships it creates. Atomised individuals ("soloists") cannot change the world, and "voting" on the market hardly reduces their atomisation. As Murray Bookchin argues, "[t]ragically, these millions [of "soloists"] have surrendered their social power, indeed, their very personalities, to politicians and bureaucrats who live in a nexus of obedience and command in which they are normally expected to play subordinate roles. Yet this is precisely the immediate cause of the ecological crisis of our time — a cause that has its historic roots in the market society that engulfs us." [Toward an Eco-

turn to their function of defending person and property rights against invasion, and therefore to enjoin anyone from injecting pollutants into the air ... The argument against such an injunctive prohibition against pollution that it would add to the costs of industrial production is as reprehensible as the pre-Civil War argument that the abolition of slavery would add to the costs of growing cotton, and therefore abolition, however morally correct, was 'impractical.' For this means that the polluters are able to impose all of the high costs of pollution upon those whose lungs and property rights they have been allowed to invade with impunity." [Op. Cit., p. 259]

This is a valid point. Regulating or creating markets for emissions means that governments tolerate pollution and so allows capitalists to impose its often high costs onto others. The problem is that Rothbard's solution cannot achieve this goal as it ignores economic power. Moreover, this argument implies that the consistent and intellectually honest right-"libertarian" would support a zero-emissions environmental policy. However, as we discuss in the next section, Rothbard (like most right-"libertarians") turned to various legalisms like "provable harm" and ideological constructs to ensure that this policy would not be implemented. In fact, he argued extensively on how polluters could impose costs on other people under his system. First, however, we need to discuss the limitations of his position before discussing how he later reprehensibly refuted his own arguments. Then in section E.4.2 we will indicate how his own theory cannot support the privatisation of water or the air nor the preservation of wilderness areas. Needless to say, much of the critique presented in section E.3 is also applicable here and so we will summarise the key issues in order to reduce repetition.

As regards the issue of privatising natural resources like rivers, the most obvious issue is that Rothbard ignores one major point: why **would** the private owner be interested in keeping it clean? What if the rubbish dumper is the corporation that owns the property? Why not just assume that the company can make more money turning the lakes and rivers into dumping sites, or trees into junk mail? This scenario is no less plausible. In fact, it is more likely to happen in many cases as there is a demand for such dumps by wealthy corporations who would be willing to pay for the privilege.

So to claim that capitalism will protect the environment is just another example of free market capitalists trying to give the reader what he or she wants to hear. In practice, the idea that extending property rights to rivers, lakes and so forth (if possible) will stop ecological destruction all depends on the assumptions used. Thus, for example, if it is assumed that ecotourism will produce more income from a wetland than draining it for cash crops, then, obviously, the wetlands are saved. If the opposite assumption is made, the wetlands are destroyed.

But, of course, the supporter of capitalism will jump in and say that if dumping were allowed, this would cause pollution, which would affect others who would then sue the owner in question. "Maybe" is the answer to this claim, for there are many circumstances where a lawsuit would be unlikely to happen. For example, what if the locals are slum dwellers and cannot afford to sue? What if they are afraid that their landlords will evict them if they sue (particularly if the landlords also own the polluting property in question)? What if many members of the affected community work for the polluting company and stand to lose their jobs if they sue? All in all, this argument ignores the obvious fact that resources are required to fight a court case and to make and contest appeals. In the case of a large corporation and a small group of even average income families, the former will have much more time and resources to spend in fighting any lawsuit. This is the case today

itates it by opening a new market. All products, no matter how 'green', cause some pollution, use some resources and energy, and cause some ecological disturbance. This would not matter in a society in which production was rationally planned, but in an exponentially expanding economy, production, however 'green', would eventually destroy the Earth's environment. Ozone-friendly aerosols, for example, still use other harmful chemicals; create pollution in their manufacture, use and disposal; and use large amounts of resources and energy. Of course, up to now, the green pretensions of most companies have been exposed largely as presenting an acceptably green image, with little or no substance. The market is presented as the saviour of the environment. Environmental concern is commodified and transformed into ideological support for capitalism. Instead of raising awareness of the causes of the ecological crisis, green consumerism mystifies them. The solution is presented as an individual act rather than as the collective action of individuals struggling for social change. The corporations laugh all the way to the bank." [From Green to Red, pp. 9–10]

"Ethical" consumerism, like "ethical" investment, is still based on profit making, the extraction of surplus value from others. This is hardly "ethical," as it cannot challenge the inequality in exchange and power that lies at the heart of capitalism nor the authoritarian social relationships it creates. Therefore it cannot really undermine the ecologically destructive nature of capitalism.

In addition, since capitalism is a world system, companies can produce and sell their non-green and dangerous goods elsewhere. Many of the products and practices banned or boycotted in developed countries are sold and used in developing

of advertising or the lack of public control over production and investment under capitalism. Hence it is a totally inadequate solution.

As green Sharon Beder notes, green marketing aims at "increasing consumption, not reducing it. Many firms [seek] to capitalise on new markets created by rising environmental consciousness" with such trends prompting "a surge of advertisements and labels claiming environmental benefits. Green imagery was used to sell products, and caring for the environment became a marketing strategy" and was a "way of redirecting a willingness to spend less into a willingness to buy green products." This means that firms can "expand their market share to include consumers that want green products. Since manufacturers still make environmentally damaging products and retailers still sell nongreen products on shelves next to green ones, it is evident that green marketing is merely a way of expanding sales. If they were genuinely concerned to protect the environment they would replace the unsound products with sound ones, not just augment their existing lines." Moreover, green marketing "does not necessarily mean green products, but false and misleading claims can be hard for consumers to detect" while the "most cynical marketers simply use environmental imagery to conjure up the impression that a product is good for the environment without making any real claims at all." Ultimately, green consumerism "reduces people to consumers. Their power to influence society is reduced to their purchasing power." It "does not deal with issues such as economic growth on a finite planet, the power of transnational corporations, and the way power is structured in our society." [Global Spin, pp. 176–80]

Andrew Watson sums up green consumerism very eloquently as follows:

"green consumerism, which is largely a cynical attempt to maintain profit margins, does not challenge capital's eco-cidal accumulation, but actually faciland it seems unlikely that it will change in any society marked by inequalities of wealth and power. In other words, Rothbard ignores the key issue of economic power:

"Rothbard appears to assume that the courts will be as accessible to the victims of pollution as to the owner of the factory. Yet it is not unlikely that the owner's resources will far exceed those of his victims. Given this disparity, it is not at all clear that persons who suffer the costs of pollution will be able to bear the price of relief.

"Rothbard's proposal ignores a critical variable: power. This is not surprising. Libertarians [sic!] are inclined to view 'power' and 'market' as antithetical terms ... In Rothbard's discussion, the factor owner has no power over those who live near the factory. If we define power as comparative advantage under restricted circumstances, however, we can see that he may. He can exercise that power by stretching out the litigation until his opponent's financial resources are exhausted. In what is perhaps a worst case example, though by no means an unrealistic scenario, the owner of an industry on which an entire community depends for its livelihood may threaten to relocate unless local residents agree to accept high levels of pollution. In this instance, the 'threat' is merely an announcement by the owner that he will move his property, as is his right, unless the people of the community 'freely' assent to his conditions ... There is no reason to believe that all such persons would seek injunctive relief ... Some might be willing to tolerate the pollution if the factory owner would provide compensation. In short, the owner could pay to pollute. This solution ... ignores the presence of power in the market. It is unlikely that the 'buyers' and 'sellers'

of pollution will be on an equal footing." [Stephen L. Newman, Liberalism at wits' end, pp. 121–2]

There is strong reason to believe that some people may tolerate pollution in return for compensation (as, for example, a poor person may agree to let someone smoke in their home in return for \$100 or accept a job in a smoke filled pub or bar in order to survive in the short term regardless of the long-term danger of lung cancer). As such, it is always possible that, due to economic necessity in an unequal society, that a company may pay to be able to pollute. As we discussed in section E.3.2, the demand for the ability to pollute freely has seen a shift in industries from the west to developing nations due to economic pressures and market logic:

"Questions of intergenerational equity and/or justice also arise in the context of industrial activity which is clearly life threatening or seriously diminishes the quality of life. Pollution of the air, water, soil and food in a way that threatens human health is obviously not sustainable, yet it is characteristic of much industrial action. The greatest burden of the life and health threatening by-products of industrial processes falls on those least able to exercise options that provide respite. The poor have risks to health imposed on them while the wealthy can afford to purchase a healthy lifestyle. In newly industrialising countries the poorest people are often faced with no choice in living close to plants which present a significant threat to the local population ... With the international trend toward moving manufacturing industry to the cheapest sources of labour, there is an increasing likelihood that standards in occupational health and safety will decline and damage to human and environmental health will increase." [Glenn AlThen there is the matter of sourcing of secondary products. After all, most products we consume are made up of a multitude of other goods and it is difficult, if not impossible, to know where these component parts come from. Thus we have no real way of knowing whether your latest computer has parts produced in sweatshops in third-world countries nor would a decision not to buy it be communicated that far back down the market chain (in fact, the company would not even know that you were even **thinking** about buying a product unless you used non-market means to inform them and then they may simply dismiss an individual as a crank).

So the notion that consumerism can be turned to pressurising companies is deeply flawed. This is **not** to suggest that we become unconcerned about how we spend our money. Far from it. Buying greener products rather than the standard one does have an impact. It just means being aware of the limitations of green consumerism, particularly as a means of changing the world. Rather, we must look to changing how goods are produced. This applies, of course, to shareholder democracy as well. Buying shares in a firm rarely results in an majority at the annual meetings nor, even if it did, does it allow an effective say in the day-to-day decisions management makes.

Thus green consumerism is hindered by the nature of the market — how the market reduces everything to price and so hides the information required to make truly informed decisions on what to consume. Moreover, it is capable of being used to further ecological damage by the use of PR to paint a false picture of the companies and their environmental activities. In this way, the general public think things are improving while the underlying problems remain (and, perhaps, get worse). Even assuming companies are honest and do minimise their environmental damage they cannot face the fundamental cause of the ecological crisis in the "grow-or-die" principle of capitalism ("green" firms need to make profits, accumulate capital and grow bigger), nor do they address the pernicious role

cal consumption decisions or whether it is due to simple dislike of the product. Unless there is an organised consumer boycott, i.e. a collective campaign, then the company really has no idea that it is being penalised for its anti-ecological and/or anti-social actions. Equally, corporations are so interlinked that it can make boycotts ineffective. For example, unless you happened to read the business section on the day McDonalds bought a sizeable share in Pret-a-Manger you would have no idea that going there instead of McDonalds would be swelling the formers profits.

Ultimately, the price mechanism does not provide enough information for the customer to make an informed decision about the impact of their purchase and, by reducing prices, actively rewards the behaviour Schlosser condemns. After all, what is now "organic" production was just the normal means of doing it. The pressures of the market, the price mechanism so often suggested as a tool for change, ensured the industrialisation of farming which so many now rightly condemn. By reducing costs, market demand increased for the cheaper products and these drove the other, more ecologically and socially sound, practices out of business.

Which feeds into the issue of effective demand and income limitations. The most obvious problem is that the market is **not** a consumer democracy as some people have more votes than others (in fact, the world's richest people have more "votes" than the poorest billions, combined!). Those with the most "votes" (i.e. money) will hardly be interested in changing the economic system which placed them in that position. Similarly, those with the least "votes" will be more willing to buy ecologically destructive products simply to make ends meet rather than any real desire to do so. In addition, one individual's decision **not** to buy something will easily be swamped by others seeking the best deal, i.e. the lowest prices, due to economic necessity or ignorance. Money (quantity) counts in the market, not values (quality).

brecht, "Ethics, Anarchy and Sustainable Development", pp. 95–118, Anarchist Studies, vol. 2, no. 2, pp. 107–8]

The tragedy at Bhopal in India is testimony to this process. This should be unsurprising, as there is a demand for the ability to pollute from wealthy corporations and this has resulted in many countries supplying it. This reflects the history of capitalism within the so-called developed countries as well. As Rothbard laments:

"[F]actory smoke and many of its bad effects have been known ever since the Industrial Revolution, known to the extent that the American courts, during the late — and as far back as the early — 19<sup>th</sup> century made the deliberate decision to allow property rights to be violated by industrial smoke. To do so, the courts had to — and did — systematically change and weaken the defences of property rights embedded in Anglo-Saxon common law ... the courts systematically altered the law of negligence and the law of nuisance to **permit** any air pollution which was not unusually greater than any similar manufacturing firm, one that was not more extensive than the customary practice of polluters." [Op. Cit., p. 257]

Left-wing critic of right-"libertarianism" Alan Haworth points out the obvious by stating that "[i]n this remarkably — wonderfully — self-contradictory passage, we are invited to draw the conclusion that private property must provide the solution to the pollution problem from an account of how it clearly did not." In other words 19<sup>th</sup>-century America — which for many right-"libertarians" is a kind of "golden era" of free-market capitalism — saw a move "from an initial situation of well-defended property rights to a later situation where greater pollution was

*tolerated.*" This means that private property cannot provide a solution the pollution problem. [Anti-Libertarianism, p. 113]

It is likely, as Haworth points out, that Rothbard and other free marketeers will claim that the 19<sup>th</sup>-century capitalist system was not pure enough, that the courts were motivated to act under pressure from the state (which in turn was pressured by powerful industrialists). But can it be purified by just removing the government and privatising the courts, relying on a so-called "free market for justice"? The pressure from the industrialists remains, if not increases, on the privately owned courts trying to make a living on the market. Indeed, the whole concept of private courts competing in a "free market for justice" becomes absurd once it is recognised that those with the most money will be able to buy the most "justice" (as is largely the case now). Also, this faith in the courts ignores the fact suing would only occur after the damage has already been done. It's not easy to replace ecosystems and extinct species. And if the threat of court action had a "deterrent" effect, then pollution, murder, stealing and a host of other crimes would long ago have disappeared.

To paraphrase Haworth, the characteristically "free market" capitalist argument that if X were privately owned, Y would almost certainly occur, is just wishful thinking.

Equally, it would be churlish to note that this change in the law (like so many others) was an essential part of the creation of capitalism in the first place. As we discuss in section F.8, capitalism has always been born of state intervention and the toleration of pollution was one of many means by which costs associated with creating a capitalist system were imposed on the general public. This is still the case today, with (for example) the **Economist** magazine happily arguing that the migration of dirty industries to the third world is "desirable" as there is a "trade-off between growth and pollution control." Inflicting pollution on the poorest sections of humanity is, of course, in their own best interests. As the magazine put it, "[i]f clean growth

The amazing thing is that being concerned about such issues is considered as a flaw in economics. In fact, seeking the lowest price and ignoring the social and ecological impact of a product is "considered virtuousness" by the market and by economists for, as green economist E. F. Schumacher, pointed out "[i]f a buyer refused a good bargain because he suspected that the cheapness of the goods in question stemmed from exploitation or other despicable practices (except theft), he would be open to criticism of behaving 'uneconomically' which is viewed as nothing less than a fall from grace. Economists and others are wont to treat such eccentric behaviour with derision if not indignation. The religion of economics has its own code of ethics, and the First Commandment is to behave 'economically.'" [Small is Beautiful, p. 30] And, of course, such a consumer would face numerous competitors who will happily take advantage of such activities.

Then there is the issue of how the market system hides much more information than it gives (a factor we will return to in section I.1.2). Under the price system, customers have no way of knowing the ecological (or social) impact of the products they buy. All they have is a price and that simply does not indicate how the product was produced and what costs were internalised in the final price and which were externalised. Such information, unsurprisingly, is usually supplied outside the market by ecological activists, unions, customer groups and so on. Then there is the misinformation provided by the companies themselves in their adverts and PR campaigns. The skilfully created media images of advertising can easily swamp the efforts of these voluntary groups to inform the public of the facts of the social and environmental costs of certain products. Besides, any company has the threat of court action to silence their critics as the cost in money, resources, energy and time to fight for free speech in court is an effective means to keep the public ignorant about the dark side of capitalism.

This works the other way too. Simply put, a company has no idea whether you not buying a product is based on ethi-

something they are not." [quoted by Stauber and Rampton, Op. Cit., p. 76]

Even ignoring the distorting influence of advertising and corporate-paid PR, the fundamental issue remains of whether consumerism can actually fundamentally influence how business works. One environmental journalist puts the arguments well in his excellent book on "Fast Food" (from the industrialisation of farming, to the monopolisation of food processing, to the standardisation of food consumption it). As he puts corporations will "sell free-range, organic, grass-fed hamburgers if you demand it. They will sell whatever sells at a profit." [Eric Schlosser, **Op**. Cit., p. 269] He complements this position by suggesting various regulations and some role for trade unions.

Which, of course, is true. It is equally true that we are not forced to buy any specific product, which is why companies spend so much in convincing us to buy their products. Yet even ignoring the influence of advertising, it is unlikely that using the market will make capitalism nicer. Sadly, the market rewards the anti-social activities that Schlosser and other environmentalists chronicle. As he himself notes, the "low price of a fast food hamburger does not reflect its real cost ... The profits of the fast food chains have been made possible by the losses imposed on the rest of society." [Op. Cit., p. 261] This means that the idea that by using the market we can "reform" capitalism is flawed simply because even "good" companies have to make a profit and so will be tempted to cut costs, inflict them on third parties (such as workers, consumers and the planet). The most obvious form of such externalities is pollution. Such anti-social and anti-ecological behaviour makes perfect business sense as prices fall when costs are passed on to others in the form of externalities. Thus firms which employ debt-slaves in sweatshops while polluting the atmosphere in a third-world dictatorship will have lower costs and so prices than those employing unionised workers under eco-friendly regulations.

means slower growth, as it sometimes will, its human cost will be lives blighted by a poverty that would otherwise have been mitigated. That is why it is wrong for the World Bank or anybody else to insist upon rich-country standards of environmental practices in developing countries ... when a trade off between cleaner air and less poverty has to be faced, most poor countries will rightly want to tolerate more pollution than rich countries do in return for more growth." ["Pollution and the Poor", The Economist, 15/ 02/1992] That "poor countries" are just as state, class and hierarchy afflicted as "rich-country" ones and so it is not the poor who will be deciding to "tolerate" pollution in return for higher profits (to use the correct word rather than the economically correct euphemism). Rather, it will be inflicted upon them by the ruling class which runs their country. That members of the elite are willing to inflict the costs of industrialisation on the working class in the form of pollution is unsurprising to anyone with a grasp of reality and how capitalism develops and works (it should be noted that the magazine expounded this particular argument to defend the infamous Lawrence Summers memo discussed in section E.3.2).

Finally, let us consider what would happen is Rothbard's schema could actually be applied. It would mean that almost every modern industry would be faced with law suits over pollution. This would mean that the costs of product would soar, assuming production continued at all. It is likely that faced with demands that industry stop polluting, most firms would simply go out of business (either due to the costs involved in damages or simply because no suitable non-polluting replacement technology exists) As Rothbard here considers all forms of pollution as an affront to property rights, this also applies to transport. In other words, "pure" capitalism would necessitate the end of industrial society. While such a prospect may be welcomed by some deep ecologists and primitivists, few others would support such a solution to the problems of pollution.

Within a decade of his zero-emissions argument, however, Rothbard had changed his position and presented a right"libertarian" argument which essentially allowed the polluters to continue business as usual, arguing for a system which, he admitted, would make it nearly impossible for individuals to sue over pollution damage. As usual, given a choice between individual freedom and capitalism Rothbard choose the latter. As such, as Rothbard himself proves beyond reasonable doubt, the extension of private property rights will be unable to protect the environment. We discuss this in the next section.

### E.4.1 Will laissez-faire capitalism actually end pollution?

No, it will not. In order to show why, we need only quote Murray Rothbard's own arguments. It is worth going through his arguments to see exactly why "pure" capitalism simply cannot solve the ecological crisis.

As noted in the last section, Rothbard initially presented an argument that free market capitalism would have a zero-emissions policy. Within a decade, he had substantially changed his tune in an article for the right-"libertarian" thinktank the Cato Institute. Perhaps this change of heart is understandable once you realise that most free market capitalist propagandists are simply priests of a religion convenient to the interests of the people who own the marketplace. Rothbard founded the think-tank which published this article along with industrialist Charles Koch in 1977. Koch companies are involved in the petroleum, chemicals, energy, minerals, fertilisers industries as well as many others. To advocate a zero-pollution policy would hardly be in the Institute's enlightened self-interest as its backers would soon be out of business (along with industrial capitalism as a whole).

half of corporate clients in the chemical, energy, food, automobile, forestry and mining industries." A significant amount of cash is spent (an estimated \$1 billion a year by the mid-1990s) "on the services of anti-environmental PR professionals and on 'greenwashing' their corporate image." [Toxic Sludge is Good for You!, p. 125] See the chapter called "Silencing Spring" in Stauber's and Rampton's book Toxic Sludge is Good for You! for a good summary of this use of PR firms.

Even apparently ecologically friendly firms like "The Body Shop" can present a false image of what they do. For example, journalist Jon Entine investigated that company in 1994 and discovered that only a minuscule fraction of its ingredients came from **Trade Not Aid** (a program claimed to aid developing countries). Entine also discovered that the company also used many outdated, off-the-shelf product formulas filled with non-renewable petrochemicals as well as animal tested ingredients. When Entine contacted the company he received libel threats and it hired a PR company to combat his story. [Stauber and Rampton, **Op**. **Cit**., pp. 74–5] This highlights the dangers of looking to consumerism to solve ecological problems. As Entine argued:

"The Body Shop is a corporation with the privileges and power in society as all others. Like other corporations it makes products that are unsustainable, encourages consumerism, uses non-renewable materials, hires giant PR and law firms, and exaggerates its environment policies. If we are to become a sustainable society, it is crucial that we have institutions ... that are truly sustainable. The Body Shop has deceived the public by trying to make us think that they are a lot further down the road to sustainability than they really are. We should ... no longer ... lionise the Body Shop and others who claim to be

firms and produce advertisements to paint a false image of themselves as being ecologically friendly (i.e. perform "greenwashing"). This indicates a weakness of market economies they hinder (even distort) the flow of information required for consumers to make informed decisions. The market does not provide enough information for consumers to determine whether a product is actually green or not - it just gives them a price supplemented by (often deliberately misleading) advertising designed to manipulate the consumer and present an appropriate corporate image. Consumers have to rely on other sources, many of which are minority journals and organisations and so difficult to find, to provide them with the accurate information required to countermand the power and persuasion of advertising and the work of PR experts. This helps explain why, for example, "large agribusiness firms are now attempting, like Soviet commissars, to stifle criticism of their policies" by means of "veggie libel laws." These laws, which in 2001 had been passed in 13 American states ("backed by agribusiness") "make it illegal to criticise agricultural commodities in a manner inconsistent with 'reasonable' scientific evidence. The whole concept of 'veggie libel' laws is probably unconstitutional; nevertheless, these laws remain on the books." [Eric Schlosser, Fast Food Nation, p. 266]

We should not discount the impact of PR experts in shaping the way people see the world or decide to consume. A lot of resources are poured into corporate Public Relations in order to present a green image. "In the perverse world of corporate public relations," note critics John Stauber and Sheldon Rampton, "propagandising and lobbying against environmental protection is called 'environmental' or 'green' PR. 'Greenwashing' is a more accurate pejorative now commonly used to describe the ways that polluters employ deceptive PR to falsely paint themselves an environmentally responsible public image ... Today a virulent, proindustry, anti-environmentalism is on the rise ... PR experts ... are waging and winning a war against environmentalists on be-

Rothbard's defence of the right to pollute is as ingenious as it is contradictory to his original position. As will be discussed in section F.4, Rothbard subscribes to a "homesteading" theory of property and he utilises this not only to steal the actual physical planet (the land) from this and future generations but also our (and their) right to a clean environment. He points to "more sophisticated and modern forms of homesteading" which can be used to "homestead" pollution rights. If, for example, a firm is surrounded by unowned land then it can pollute to its hearts content. If anyone moves to the area then the firm only becomes liable for any excess pollution over this amount. Thus firms "can be said to have homesteaded a pollution easement of a certain degree and type." He points to an "exemplary" court case which rejected the argument of someone who moved to an industrial area and then sued to end pollution. As the plaintiff had voluntarily moved to the area, she had no cause for complaint. In other words, polluters can simply continue to pollute under free market capitalism. This is particularly the case as clean air acts would not exist in libertarian legal theory, such an act being "illegitimate and itself invasive and a criminal interference with the property rights of noncriminals." ["Law, Property Rights, and Air Pollution," pp. 55-99, Cato Journal, Vol. 2, No. 1, p. 77, p. 79 and p. 89]

In the last section, we showed how Rothbard had earlier argued that the solution to pollution was to privatise everything. Given that rivers, lakes and seas are currently **unowned** this implies that the current levels of pollution would be the initial "homesteaded" level and so privatisation will not, in fact, reduce pollution at all. At best, it may stop pollution getting worse but even this runs into the problem that pollution usually increases slowly over time and would be hard to notice and much harder to prove which incremental change produced the actual quantitative change.

Which leads to the next, obvious, problem. According to Rothbard you can sue provided that "the polluter has not previ-

ously established a homestead easement," "prove strict causality from the actions of the defendant... beyond a reasonable doubt" and identify "those who actually commit the deed" (i.e. the employees involved, not the company). [Op. Cit., p. 87] Of course, how do you know and prove that a specific polluter is responsible for a specific environmental or physical harm? It would be near impossible to identify which company contributed which particles to the smog which caused pollution related illnesses. Polluters, needless to say, have the right to buy-off a suit which would be a handy tool for wealthy corporations in an unequal society to continue polluting as economic necessity may induce people to accept payment in return for tolerating it.

Turning to the pollution caused by actual products, such as cars, Rothbard argues that "libertarian [sic!] principle" requires a return to privity, a situation where the manufacturers of a product are not responsible for any negative side-effects when it is used. In terms of transport pollution, the "guilty polluter should be each individual car owner and not the automobile manufacturer, who is not responsible for the actual tort and the actual emission." This is because the manufacturer does not know how the car will be used (Rothbard gives an example that it may not be driven but was bought "mainly for aesthetic contemplation by the car owner"!). He admits that "the situation for plaintiffs against auto emissions might seem hopeless under libertarian law." Rest assured, though, as "the roads would be privately owned" then the owner of the road could be sued for the emissions going "into the lungs or airspace of other citizens" and so "would be liable for pollution damage." This would be "much more feasible than suing each individual car owner for the minute amount of pollutants he might be responsible for." [Op. Cit., p. 90 and p. 91]

The problems with this argument should be obvious. Firstly, roads are currently "unowned" under the right-"libertarian" perspective (they are owned by the state which has no right to own anything). This means, as Rothbard has already sug-

# E.5 Can ethical consumerism stop the ecological crisis?

No. At best, it can have a limited impact in reducing environmental degradation and so postpone the ecological crisis. At worse, it could accelerate that crisis by creating new markets and thus increasing growth.

Before discussing why and just so there is no misunderstanding, we must stress that anarchists fully recognise that using recycled or renewable raw materials, reducing consumption and buying "ecologically friendly" products and technologies are very important. As such, we would be the last to denounce such a thing. But such measures are of very limited use as solutions to the ecological problems we face. At best they can only delay, not prevent, capitalism's ultimate destruction of the planet's ecological base.

Green consumerism is often the only thing capitalism has to offer in the face of mounting ecological destruction. Usually it boils down to nothing more than slick advertising campaigns by big corporate polluters to hype band-aid measures such as using a few recycled materials or contributing money to a wildlife fund, which are showcased as "concern for the environment" while off camera the pollution and devouring of non-renewable resources goes on. They also engage in "greenwashing", in which companies lavishly fund PR campaigns to paint themselves "green" without altering their current polluting practices!

This means that apparently "green" companies and products actually are not. Many firms hire expensive Public Relations

commodity which is limited in amount, can be realised only by equality of possession ... From whatever point we view this question of property — provided we go to the bottom of it — we reach equality." [Op. Cit., p. 107]

To conclude, it would be unfair to simply quote Keynes evaluation of one work by von Hayek, another leading "Austrian Economist," namely that it "is an extraordinary example of how, starting with a mistake, a remorseless logician can end up in bedlam." This is only partly true as Rothbard's account of property rights in water and air is hardly logical (although it is remorseless once we consider its impact when applied in an unequal and hierarchical society). That this nonsense is in direct opposition to the anarchist perspective on this issue should not come as a surprise any more than its incoherence. As we discuss in section F, Rothbard's claims to being an "anarchist" are as baseless as his claim that capitalism will protect the environment.

gested, any new road owners would have already created a "homesteading" right to pollute (after all, who would buy a road if they expected to be sued by so doing?). Secondly, it would be extremely difficult to say that specific emissions from a specific road caused the problems and Rothbard stresses that there must be "proof beyond reasonable doubt." Road-owners as well as capitalist firms which pollute will, like the tobacco industry, be heartened to read that "statistical correlation ... cannot establish causation, certainly not for a rigorous legal proof of guilt or harm." After all, "many smokers never get lung cancer" and "many lung cancer sufferers have never smoked." [Op. Cit., p. 92 and p. 73] So if illnesses cluster around, say, roads or certain industries then this cannot be considered as evidence of harm caused by the pollution they produce.

Then there is the question of who is responsible for the damage inflicted. Here Rothbard runs up against the contradictions within wage labour. Capitalism is based on the notion that a person's liberty/labour can be sold/alienated to another who can then use it as they see fit. This means that, for the capitalist, the worker has no claim on the products and services that labour has produced. Strangely, according to Rothbard, this alienation of responsibility suddenly is rescinded when that sold labour commits an action which has negative consequences for the employer. Then it suddenly becomes nothing to do with the employer and the labourer becomes responsible for their labour again.

Rothbard is quite clear that he considers that the owners of businesses are **not** responsible for their employee's action. He gives the example of an employer who hires an incompetent worker and suffers the lost of his wages as a result. However, "there appears to be no legitimate reason for forcing the employer to bear the additional cost of his employee's tortious behaviour." For a corporation "does not act; only individuals act, and each must be responsible for his own actions and those alone." He notes that employers are sued because they "generally have

more money than employees, so that it becomes more convenient ... to stick the wealthier class with the liability." [Op. Cit., p. 76 and p. 75]

This ignores the fact that externalities are imposed on others in order to maximise the profits of the corporation. The stockholders directly benefit from the "tortious behaviour" of their wage slaves. For example, if a manager decides to save £1,000,000 by letting toxic waste damage to occur to then the owners benefit by a higher return on their investment. To state that is the manager who must pay for any damage means that the owners of a corporation or business are absolved for any responsibility for the actions of those hired to make money for them. In other words, they accumulate the benefits in the form of more income but not the risks or costs associated with, say, imposing externalities onto others. That the "wealthier class" would be happy to see such a legal system should go without saying.

The notion that as long as "the tort is committed by the employee in the course of furthering, even only in part, his employer's business, then the employer is also liable" is dismissed as "a legal concept so at war with libertarianism, individualism, and capitalism, and suited only to a precapitalist society." [Op. Cit., p. 74 and p. 75] If this principle is against "individualism" then it is simply because capitalism violates individualism. What Rothbard fails to appreciate is that the whole basis of capitalism is that it is based on the worker selling his time/liberty to the boss. As Mark Leier puts it in his excellent biography of Bakunin:

"The primary element of capitalism is wage labour It is this that makes capitalism what it is ... The employer owns and controls the coffee shop or factory where production takes place and determines who will be hired and fired and how things will be produced; that's what it means to be a 'boss.' Workers produce goods or services for their employer. Every-

tion is considered to be transcended purely in terms of material wealth rather than its impact on individual liberty or dignity which, surely, should be of prime concern for someone claiming to favour "liberty." What Rothbard failed to understand that Locke's Proviso of apparently limiting appropriation of land as long as there was enough and as good for others was a ploy to make the destruction of the commons palatable to those with a conscience or some awareness of what liberty involves. This can be seen from the fact this limitation could be transcended at all (in the same way, Locke justified the exploitation of labour by arguing that it was the property of the worker who sold it to their boss — see section B.4.2 for details). By getting rid of the Proviso, Rothbard simply exposes this theft of our common birthright in all its unjust glory.

It is simple. Either you reject the Proviso and embrace capitalist property rights (and so allow one class of people to be dispossessed and another empowered at their expense) or you take it seriously and reject private property in favour of possession and liberty. Anarchists, obviously, favour the latter option. Thus Proudhon:

"Water, air, and light are common things, not because they are inexhaustible, but because they are indispensable; and so indispensable that for that very reason Nature has created them in quantities almost infinite, in order that their plentifulness might prevent their appropriation. Likewise the land is indispensable to our existence, — consequently a common thing, consequently unsusceptible of appropriation; but land is much scarcer than the other elements, therefore its use must be regulated, not for the profit of a few, but in the interest and for the security of all.

"In a word, equality of rights is proved by equality of needs. Now, equality of rights, in the case of a

is limited in amount. Then ... it ought to be appropriated. It would seem, on the contrary, that he ought to say, Then it ought not to be appropriated. Because, no matter how large a quantity of air or light any one appropriates, no one is damaged thereby; there always remains enough for all. With the soil, it is very different. Lay hold who will, or who can, of the sun's rays, the passing breeze, or the sea's billows; he has my consent, and my pardon for his bad intentions. But let any living man dare to change his right of territorial possession into the right of property, and I will declare war upon him, and wage it to the death!" [What is Property?, p. 106]

Unlike Locke who at least paid lip-service to the notion that the commons can be enclosed when there is enough and as good left for others to use, Rothbard turn this onto its head. In his "Lockean" schema, a resource can be appropriated only when it is scare (i.e. there is **not** enough and as good left for others). Perhaps it comes as no surprise that Rothbard rejects the "Lockean proviso" (and essentially argues that Locke was not a consistent Lockean as his work is "riddled with contradictions and inconsistencies" and have been "expanded and purified" by his followers. [The Ethics of Liberty, p. 22]).

Rothbard is aware of what is involved in accepting the Lockean Proviso — namely the existence of private property ("Locke's proviso may lead to the outlawry of all private property of land, since one can always say that the reduction of available land leaves everyone else ... worse off" [Op. Cit., p. 240]). The Proviso does imply the end of capitalist property rights which is why Rothbard, and other right-"libertarians", reject it while failing to note that Locke himself simply assumed that the invention of money transcended this limitation. [C.B. MacPherson, The Political Theory of Individualism, pp. 203–20] As we discussed in section B.3.4, it should be stressed that this limita-

thing they produce on the job belongs to the capitalist: workers have no more right to the coffee or cars they produce than someone off the street. Their employer, protected by law and by the apparatus of the state, owns all they produce. The employer then sells the goods that have been produced and gives the workers a portion of the value they have created. Capitalists and workers fight over the precise amounts of this portion, but the capitalist system is based on the notion that the capitalist owns everything that is produced and controls how everything is produced." [Bakunin: The Creative Passion, p. 26]

This is clearly the case when a worker acts in a way which increases profits without externalities. The most obvious case is when workers' produce more goods than they receive back in wages (i.e. the exploitation at the heart of capitalism — see section C.2). Why should that change when the action has an externality? While it may benefit the boss to argue that he should gain the profits of the worker's actions but not the costs it hardly makes much logical sense. The labour sold becomes the property of the buyer who is then entitled to appropriate the produce of that labour. There is no reason for this to suddenly change when the product is a negative rather than a positive. It suggests that the worker has sold both her labour and its product to the employer unless it happens to put her employer in court, then it suddenly becomes her's again!

And we must note that it is Rothbard's arguments own arguments which are "suited only to a precapitalist society." As David Ellerman notes, the slave was considered a piece of property under the law **unless** he or she committed a crime. Once that had occurred, the slave became an autonomous individual in the eyes of the law and, as a result, could be prosecuted as an individual rather than his owner. This exposed a funda-

mental inconsistency "in a legal system that treats the same individual as a thing in normal work and legally as a person when committing a crime." Much the same applies to wage labour as well. When an employee commits a negligent tort then "the tortious servant emerges from the cocoon of non-responsibility metamorphosed into a responsible human agent." In other words, "the employee is said to have stepped outside the employee's role." [Property and Contract in Economics, p. 125, p. 128 and p. 133] Rothbard's argument is essentially the same as that of the slave-owner, with the boss enjoying the positive fruits of their wage slaves activities but not being responsible for any negative results.

So, to summarise, we have a system which will allow pollution to continue as this right has been "homesteaded" while, at the same, making it near impossible to sue individual firms for their contribution to the destruction of the earth. Moreover, it rewards the owners of companies for any externalities inflicted while absolving them of any responsibility for the actions which enriched them. And Rothbard asserts that "private ownership" can solve "many 'externality' problems"! The key problem is, of course, that for Rothbard the "overriding factor in air pollution law, as in other parts of the law, should be libertarian and property rights principles" rather than, say, stopping the destruction of our planet or even defending the right of individual's not to die of pollution related diseases. [Op. Cit., p. 91 and p. 99] Rothbard shows that for the defender of capitalism, given a choice between property and planet/people the former will always win.

To conclude, Rothbard provides more than enough evidence to disprove his own arguments. This is not a unique occurrence. As discussed in the next section he does the same as regards owning water and air resources.

Given that Rothbard is keen to stress that labour is required to transform land into private property, his arguments are self-contradictory and highly illogical. It should also be stressed that here Rothbard nullifies his criteria for appropriating private property. Originally, only labour being used on the resource can turn it into private property. Now, however, the only criteria is that it is scare. This is understandable, as fishing and travelling through the air cannot remotely be considered "mixing labour" with the resource.

It is easy to see why Rothbard produced such self-contradictory arguments over the years as each one was aimed at justifying and extending the reach of capitalist property rights. Thus the Indians' hunting claims could be rejected as these allowed the privatising of the land while the logically identical fishing claims could be used to allow the privatisation of bodies of water. Logic need not bother the ideologue when he seeking ways to justify the supremacy of the ideal (capitalist private property, in this case).

Finally, since Rothbard (falsely) claims to be an anarchist, it is useful to compare his arguments to that of Proudhon's. Significantly, in the founding work of anarchism Proudhon presented an analysis of this issue directly opposite to Rothbard's. Let us quote the founding father of anarchism on this important matter:

"A man who should be prohibited from walking in the highways, from resting in the fields, from taking shelter in caves, from lighting fires, from picking berries, from gathering herbs and boiling them in a bit of baked clay, — such a man could not live. Consequently the earth — like water, air, and light — is a primary object of necessity which each has a right to use freely, without infringing another's right. Why, then, is the earth appropriated? ... [An economist] assures us that it is because it is not INFINITE. The land

individuals. Ownership of areas of water that contain fish is directly analogous to private ownership of areas of land or forests that contain animals to be hunted ... water can definitely be marked off in terms of latitudes and longitudes. These boundaries, then would circumscribe the area owned by individuals, in the full knowledge that fish and water can move from one person's property to another." [Man, Economy, and State, with Power and Market, pp. 173–4]

In a footnote to this surreal passage, he added that it "is rapidly becoming evident that air lanes for planes are becoming scare and, in a free [sic!] society, would be owned by first users."

So, travellers crossing the sea gain no property rights by doing so but those travelling through the air do. Why this should be the case is hard to explain as, logically, both acts "transform" the commons by "labour" in exactly the same manner (i.e. not at all). Why **should** fishing result in absolute property rights in oceans, seas, lakes and rivers? Does picking a fruit give you property rights in the tree or the forest it stands in? Surely, at best, it gives you a property right in the fish and fruit? And what happens if area of water is so polluted that there are no fish? Does that mean that this body of water is impossible to appropriate? How does it become owned? Surely it cannot and so it will always remain a dumping ground for waste?

Looking at the issue of land and water, Rothbard asserts that owning water is "directly analogous" to owning land for hunting purposes. Does this mean that the landowner who hunts cannot bar travellers from their land? Or does it mean that the sea-owner can bar travellers from crossing their property? Ironically, as shown above, Rothbard later explicitly rejected the claims of Native Americans to own their land because they hunted animals on it. The same, logically, applies to his arguments that bodies of water can be appropriated.

### E.4.2 Can wilderness survive under laissez-faire capitalism?

No. This conclusion comes naturally from the laissez-faire capitalist defence of private property as expounded by Murray Rothbard. Moreover, ironically, he also destroys his own arguments for ending pollution by privatising water and air.

For Rothbard, labour is the key to turning unowned natural resources into private property. As he put it, "before the homesteader, no one really used and controlled — and hence owned — the land. The pioneer, or homesteader, is the man who first brings the valueless unused natural objects into production and use." [The Ethics of Liberty, p. 49]

Starting with the question of wilderness (a topic close to many eco-anarchists' and other ecologists' hearts) we run into the usual problems and self-contradictions which befalls right-"libertarian" ideology. Rothbard states clearly that "libertarian theory must invalidate [any] claim to ownership" of land that has "never been transformed from its natural state" (he presents an example of an owner who has left a piece of his "legally owned" land untouched). If another person appears who does transform the land, it becomes "justly owned by another" and the original owner cannot stop her (and should the original owner "use violence to prevent another settler from entering this never-used land and transforming it into use" they also become a "criminal aggressor"). Rothbard also stresses that he is not saying that land must continually be in use to be valid property. [Op. Cit., pp. 63–64] This is unsurprising, as that would justify landless workers seizing the land from landowners during a depression and working it themselves and we cannot have that now, can we?

Now, where does that leave wilderness? In response to ecologists who oppose the destruction of the rainforest, many supporters of capitalism suggest that they put their money where

their mouth is and buy rainforest land. In this way, it is claimed, rainforest will be protected (see section B.5 for why such arguments are nonsense). As ecologists desire the rainforest because it is wilderness they are unlikely to "transform" it by human labour (its precisely that they want to stop). From Rothbard's arguments it is fair to ask whether logging companies have a right to "transform" the virgin wilderness owned by ecologists, after all it meets Rothbard's criteria (it is still wilderness). Perhaps it will be claimed that fencing off land "transforms" it (hardly what you imagine "mixing labour" with to mean, but never mind) — but that allows large companies and rich individuals to hire workers to fence in vast tracks of land (and recreate the land monopoly by a "libertarian" route). But as discussed in section F.4.1, fencing off land does not seem to imply that it becomes property in Rothbard's theory. And, of course, fencing in areas of rainforest disrupts the local ecosystem — animals cannot freely travel, for example — which, again, is what ecologists desire to stop. Would Rothbard have accepted a piece of paper as "transforming" land? We doubt it (after all, in his example the wilderness owner did legally own it) — and so most ecologists will have a hard time in pure capitalism (wilderness is just not an option).

Moreover, Rothbard's "homesteading" theory actually violates his support for unrestricted property rights. What if a property owner wants part of her land to remain wilderness? Their desires are violated by the "homesteading" theory (unless, of course, fencing things off equals "transforming" them, which it apparently does not). How can companies provide wilderness holidays to people if they have no right to stop settlers (including large companies) "homesteading" that wilderness? Then there is the question of wild animals. Obviously, they can only become owned by either killing them or by domesticating them (the only possible means of "mixing your labour" with them). Does it mean that someone only values, say, a polar bear when they kill it or capture it for a zoo?

commodities produced by a resource) and non-use values (i.e., the value placed on the existence of a species or wilderness). The former are usually well-defined, but often small while the latter are often large, but poorly defined. For example, the Exxon Valdez oil spill in Alaska resulted in losses to people who worked and lived in the affected area of an estimated \$300 million. However, the existence value of the area to the American population was \$9 billion. In other words, the amount that American households were reportedly willing to pay to prevent a similar oil spill in a similar area was 30 times larger. Yet this non-use value cannot be taken into account in Rothbard's schema as nature is not considered a value in itself but merely a resource to be exploited.

Which brings us to another key problem with Rothbard's argument: he simply cannot justify the appropriation of water and atmosphere by means of his own principles. To show why, we need simply consult Rothbard's own writings on the subject.

Rothbard has a serious problem here. As noted above, he subscribed to a Lockean vision of property. In this schema, property is generated by mixing labour with unowned resources. Yet you simply cannot mix your labour with water or air. In other words, he is left with a system of property rights which cannot, by their very nature, be extended to common goods like water and air. Let us quote Rothbard on this subject:

"it is true that the high seas, in relation to shipping lanes, are probably inappropriable, because of their abundance in relation to shipping routes. This is **not** true, however, of **fishing** rights. Fish are definitely not available in unlimited quantities, relatively to human wants. Therefore, they are appropriable ... In a free [sic!] society, fishing rights to the appropriate areas of oceans would be owned by the first users of these areas and then useable or saleable to other

It should also be noted that underlying assumption behind this and similar arguments is that other cultures and ways of life, like many eco-systems and species, are simply not worth keeping. While lip-service is made to the notion of cultural diversity, the overwhelming emphasis is on universalising the capitalist model of economic activity, property rights and way of life (and a corresponding ignoring of the role state power played in creating these as well as destroying traditional customs and ways of life). Such a model for development means the replacement of indigenous customs and communitarianbased ethics by a commercial system based on an abstract individualism with a very narrow vision of what constitutes selfinterest. These new converts to the international order would be forced, like all others, to survive on the capitalist market. With vast differences in wealth and power such markets have, it is likely that the net result would simply be that new markets would be created out of the natural 'capital' in the developing world and these would soon be exploited.

As an aside, we must note that Rothbard fails to realise — and this comes from his worship of capitalism and his "Austrian economics" — is that people value many things which do not, indeed cannot, appear on the market. He claims that wilderness is "valueless unused natural objects" for it people valued them, they would use — i.e. transform — them. But unused things may be of **considerable** value to people, wilderness being a classic example. And if something **cannot** be transformed into private property, does that mean people do not value it? For example, people value community, stress-free working environments, meaningful work — if the market cannot provide these, does that mean they do not value them? Of course not (see Juliet Schor's **The Overworked American** on how working people's desire for shorter working hours was not transformed into options on the market).

So it should be remembered that in valuing impacts on nature, there is a difference between use values (i.e. income from

At best, it could be argued that wilderness would be allowed if the land was transformed first then allowed to return to the wild. This flows from Rothbard's argument that there is no requirement that land continue to be used in order for it to continue to be a person's property. As he stresses, "our libertarian [sic!] theory holds that land needs only be transformed once to pass into private ownership." [Op. Cit., p. 65] This means that land could be used and then allowed to fall into disuse for the important thing is that once labour is mixed with the natural resources, it remains owned in perpetuity. However, destroying wilderness in order to recreate it is simply an insane position to take as many eco-systems are extremely fragile and will not return to their previous state. Moreover, this process takes a long time during which access to the land will be restricted to all but those the owner consents to.

And, of course, where does Rothbard's theory leave huntergatherer or nomad societies. They **use** the resources of the wilderness, but they do not "transform" them (in this case you cannot easily tell if virgin land is empty or being used). If a group of nomads find its traditionally used, but natural, oasis appropriated by a homesteader what are they to do? If they ignore the homesteaders claims he can call upon the police (public or private) to stop them — and then, in true Rothbardian fashion, the homesteader can refuse to supply water to them unless they pay for the privilege. And if the history of the United States and other colonies are anything to go by, such people will become "criminal aggressors" and removed from the picture.

As such, it is important to stress the social context of Rothbard's Lockean principles. As John O'Neill notes, Locke's labour theory of property was used not only to support enclosing common land in England but also as a justification for stealing the land of indigenous population's across the world. For example, the "appropriation of America is justified by its being brought into the world of commence and hence cultivation ... The

Lockean account of the 'vast wilderness' of America as land uncultivated and unshaped by the pastoral activities of the indigenous population formed part of the justification of the appropriation of native land." [Markets, Deliberation and Environment, p. 119] That the native population was using the land was irrelevant as Rothbard himself noted. As he put it, the Indians "laid claim to vast reaches of land which they hunted but which they did not transform by cultivation." [Conceived in Liberty, vol. 1, p. 187]. This meant that "the bulk of Indian-claimed land was not settled and transformed by the Indians" and so settlers were "at least justified in ignoring vague, abstract claims." The Indian hunting based claims were "dubious." [Op. Cit., vol. 2, p. 54 and p. 59] The net outcome, of course, was that the "vague, abstract" Indian claims to hunting lands were meet with the concrete use of force to defend the newly appropriated (i.e. stolen) land (force which quickly reached the level of genocide).

So unless people bestowed some form of transforming labour over the wilderness areas then any claims of ownership are unsubstantiated. At most, tribal people and nomads could claim the wild animals they killed and the trails that they cleared. This is because a person would "have to use the land, to 'cultivate' it in some way, before he could be asserted to own it." This cultivation is not limited to "tilling the soil" but also includes clearing it for a house or pasture or caring for some plots of timber. [Man, Economy, and State, with Power and Market, p. 170] Thus game preserves or wilderness areas could not exist in a pure capitalist society. This has deep ecological implications as it automatically means the replacement of wild, old-growth forests with, at best, managed ones. These are not an equivalent in ecological terms even if they have approximately the same number of trees. As James C. Scott stresses:

"Old-growth forests, polycropping, and agriculture with open-pollinated landraces **may** not be as productive, in the short run, as single-species forests and

fields or identical hybrids. But they are demonstrably more stable, more self-sufficient, and less vulnerable to epidemics and environmental stress ... Every time we replace 'natural capital' (such as wild fish stocks or old-growth forests) with what might be termed 'cultivated natural capital' (such as fish farms or tree plantations), we gain ease of appropriation and in immediate productivity, but at the cost of more maintenance expenses and less 'redundancy, resiliency, and stability' ... Other things being equal ... the less diverse the cultivated natural capital, the more vulnerable and nonsustainable it becomes. The problem is that in most economic systems, the external costs (in water or air pollution, for example, or the exhaustion of non-renewable resources, including a reduction in biodiversity) accumulate long before the activity becomes unprofitable in a narrow profit-and-loss sense." [Seeing like a State, p. 353]

Forests which are planned as a resource are made ecologically simplistic in order to make them economically viable (i.e., to reduce the costs involved in harvesting the crop). They tend to be monocultures of one type of tree and conservationists note that placing all eggs in one basket could prompt an ecological disaster. A palm oil monoculture which replaces rainforest to produce biofuel, for example, would be unable to support the rich diversity of wildlife as well as leaving the environment vulnerable to catastrophic disease. Meanwhile, local people dependent on the crop could be left high and dry if it fell out of favour on the global market.

To summarise, capitalism simply cannot protect wilderness and, by extension, the planet's ecology. Moreover, it is no friend to the indigenous population who use but do not "transform" their local environment.