For a mess of motorways  ■ The ecology of health and disease
A guide to courses in human ecology ■ Bugging the bugs

Rock-Bottom:
Nearing the Limits of Metal-Mining in Britain
0. TEXT OF LETTER OF TRANSMITTAL

Dear Lord Zuckerman,

Thank you for your reply dated 23 December (received 3 January) to our inquiry about the terms on which you invited Friends of the Earth to submit evidence to your Commission. We are writing to make arrangements for its delivery.

On the advice of your Clerk, we understand that Friends of the Earth is restricted as to the amount of evidence it can submit. Therefore, we are unable to provide the evidence that we would wish to submit. In view of this, we have decided to keep the evidence we have as part of a study to be referred to the Commission in the event that the evidence is not available.

Yours sincerely,

[Signature]

[Assistant Director, Friends of the Earth]

[Editor’s note: Friends of the Earth submitted their evidence to the Commission on 16 January 1972 and published it four days later.]

1. TERMS OF REFERENCE

1.0. Before we address ourselves to the questions of mining and exploration technique raised by your report, we should like to explain why we think it essential that you construe “other requirements of national policy” to include the consideration of mineral resources. We do not consider general arguments of resource depletion. If you were to do this, we agree that your very hard task would become even harder; but we fear that your conclusions may otherwise be accepted without their underlying assumptions having been questioned. We therefore urge you to consider the following arguments, in order (if they seem cogent) either to study them yourselves, calling extra evidence, or to include in your report a caveat urging proper consideration by a special Commission (preferably harmonised, to examine the relevant questions of mining and exploration policy).

1.1. Resource Depletion

1.1.1. Why do you consider whether these limits have been reached? As mining increasingly rich ores becomes increasingly common and damaging, we believe that it is necessary that a public policy can justify further large-scale mining without an economic growth that is not essential to, and is indeed often antagonistic to, growth in well-being. The sensible alternative, which has not been examined seriously enough, is to use less profitably what we have already mined, and to devote as much effort to slowing resource loops as we now devote (in the interest of private profit) to keeping them open. This issue is especially urgent in Britain, an island within an island whose rural habitats are notoriously fragile and whose population density exceeds that of India. As we shall argue in section 3.1, mining literally costs the earth; Britain, even more than most places, has no extra earth.

1.2. Your conclusions would be vitiated if you construed your terms of reference so as to beg the question whether large-scale domestic mining is in the national interest. Your terms at their face value (excluding the saving clause of “other requirements of national policy”) seem instead to say, “whether large-scale domestic mining is necessary, we shall argue in section 3.1, mining literally costs the earth; Britain, even more than most places, has no extra earth.”

1.3. We take pleasure in presenting our evidence. We welcome your confirmation that the evidence is to be made available to the public. We take it that this evidence is “obligatory reading”; The Ecologist takes pleasure in reprinting it in full, brought up to date by minor revisions. The evidence is organised thus:

0. Text of letter of transmittal

1. Terms of reference

1.1. Resource depletion

1.2. Wording

2. Exploration

2.1. Exploration sites and land-use policy

2.2. Exploration methods

2.3. Exploration and planning law

2.4. Exploration and the Government

3. Mining

3.1. What does it cost the earth?

3.2. What does it cost people?

4. Conclusions

5. Notes

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to agrarianism, and we are fully aware of the dependence of modern society on continued supplies of minerals. We believe that this dependence lays upon Governments that do not fulfil this obligation now will not be able to continued large-scale extraction, rather than to learn how to husband what we and energy that should be devoted to once they have exhausted all other alternatives. If men and nations are "that world enjoying [sic] a major popu-

"tax holiday" last remaining钨, each ton yields a royalty of about 4.5 cents to the state (para. 118). The pressure of the money market over some similar rush to depletion. To buy this argument is that there is no end "the pit was dug with vertical rather than sloping sides, this full use of the motive was not to mine as much ore and thus attract new investors. This existing financial incentives can pre-

It is thus a sad comment that recycling is hopelessly uneconomic—that recycled materials will delay depletion by only about ten percent of the total UK consumption of 0.5 per cent in 1955)17. This pitiful small recycling rate, which is still declining, is much the lower than the cost (about $17,500 per ton) of extracting a far larger body of lower-grade ore all round, for the capital overheads were already paid, but since the metal is removed by up than sloping sides, this full use of the resource was and will remain prohibi-

The proof that energy-intensive solutions are impractical rests partly on thermodynamic and capital and expertise, for example, "progress" so that it is better attuned to the working principles of a world that for

The power of the theoretical argument for resource conservation (as distinguished from the very practi-

This is not speculation but fact. The only remedy is major change in our economic and social priorities. A few generations from now we may have attained an equilibrium population and economy in which total demand does not increase at all. Sooner than that, however, we must change our demand from increasing extensively.

And whilst we are working to reduce growth rates, we shall need to institute a less extreme form of recycling of metals, in order to buy the time required to overdue social inertia and make more fundamental changes.11.8 The argument for resource conservation (as distinguished from the very practical argument of impending depletion) is clearer if we use an analogy from biophysics. An open-loop econ-

It is a source—a reservoir of low-entropy energy—is depleted in the manufacture of goods in which energy is recycled, although waste has wound, and thus the exponential decay just listed be 55, 187, 143, 94, 65, and 50 years. The dynamics of resource depletion are of course more complex than this, and have been discussed by a different model18 that relates size of reserves, grades of ore, production costs, tech-

The simulation shows that so long as exponential growth in use continues, even if more slowly than now, depletion can temporarily be halted for only a decade or two by very large improvements in the extent of known reserves, in mining technology, or in substitution of other resources. Even curtail-

ent that monocultures cannot compete with the more diverse, more efficient, and more resilient ecosystems that need less energy. Thus the sur-

vival of monocultures is priced out of the energy market. And this "an-

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1.2. Wording

1.2.1. Your formal terms of reference

1.2.2. Wording of national mineral resources in Britain", the explicit terms apparently do not permit you to exploit what happens to mineral resources after you "hand them over"

1.2.3. Though the context of your terms of reference is "in the use of national mineral resources in Britain", the explicit terms apparently do not permit you to observe what happens to mineral resources after you "hand them over" to the mining companies.

We are concerned that "national interest" is being used in a way that is not consistent with its traditional meaning. We submit that "national interest" should be defined in terms that are clear and precise, and that it should be subject to review by an independent body. We suggest that you consider the establishment of a body to review the "national interest" in mineral resources, and that you consider the establishment of a body to review the "national interest" in mineral resources.

2. EXPLOITATION OF NATIONAL MINERAL RESOURCES

2.1. Wording of national mineral resources in Britain, the explicit terms apparently do not permit you to observe what happens to mineral resources after you "hand them over" to the mining companies.

2.2. It is not clear to us whether your terms of reference allow you to conclude, if you wish, that in some circumstances, the concept of "national interest" is fundamentally inimical and irreconcilable, or that the interests of mining and conservation in certain areas can in no way be served at once. It is not clear to us what shall argue.

We submit that "to co-ordinate a national programme of mineral development with a national programme for safeguarding the environment" is ambiguous and potentially contradictory. In terms, akin to proposing in one place simultaneous programmes of poaching and gamekeeping (both under the auspices of the poachers). We propose that the following terms of reference, which we agree with, your terms of reference will allow you to say so.

2.3. We also agree that it is not clear to us what shall argue.

2.4. We also agree that it is not clear to us what shall argue.

2.5. We may, finally, express our hope that your report will be written in plain words. It is alarming easy, as we have found out the hard way, to argue the case for or against, and, even if you succeed in concealing your meaning even from ourselves. "Anonymity", "areas of attractive landscape", and the like phrases 1.2.1 will not help people to understand or accept your conclusion. Some words, such as "restoration of national parks seems to most of Britain's wildlands are found, and perhaps there that Britain makes her closest approach to wilderness."

... it must be demonstrated quite clearly [see that] the exploitation of those minerals is also in the national interest in the sense, that it must be clear beyond all doubt that there is no possible alternative source of supply, and that it must be clear that there is no other alternative source of supply. And at the time, the national interest justifies that or what is merely economically desirable; the second condition has vanished utterly; and the third condition, as a sort of partner, has vanished equally. In this third condition has lost its spine: the pre- sent position, according to Lord Sandford, is merely that "every care must be taken that the mineral resources and restoration works are practicable". We trust you share our view that "practicable" we observe that "most of Britain's wildlands are found..."

2.6. The issues of land-use policy are important, and the present condition has lost its spine: the present position, according to Lord Sandford, is merely that "every care must be taken that the mineral resources and restoration works are practicable". We trust you share our view that "practicable" we observe that "most of Britain's wildlands are found..."
right Ministers have to decide, or that they are competent or appropriate to decide, where the national interest in Parks lies. If Parliament no longer means what it said in 1949 and in the Countryside Act, 1968, it is odd that Parliament has not said so; and until Parliament says so, we must assume Parliament would agree that the National Parks, now becoming much overcrowded every year, are already inadequate to the nation's present and future needs, and must be less stringently protected but more so. (More stringent protection would have the advantage, too, of helping to raise Britain's National Parks to the minimum standard required for inclusion in the United Nations List of National Parks and Equivalent Reserves.)

2.1.6. In short, we feel that under present or foreseeable conditions, any pretence that large-scale mining can be justified in a British National Park is a disgraceful evasion of the declared purposes of the National Parks Act. We think there are other excellent arguments against mining in the Parks, and we shall mention some below, but we believe that a nationalised industry must first of all be bound by the interest of her own laws.

2.1.7. We also cannot understand how any Government can contemplate direct subsidies to the mining industry to any extent in National Parks. Neither allegations of some ill-defined "national interest" nor cries of "This is a development area!" can remove a basic incompatibility. With one hand the Government are giving public money to private corporations in the hope they will find ore somewhere in "Countryside Areas" for planning purposes; with the other hand the Government are spending more public money to protect the same area from large-scale mining. The scale of the cost of road-making, too-numerous spectators and from unsuitable small-scale development by commercial exploiters. Are we to conclude that road-making is less unsuitable it is a National Park? To permit the substantial development of a "white area" (one in which no planning permission or limitation against this) is deplorable; to encourage it seems gratuitous folly. We cannot help thinking that to a disinterested observer this is a case where the parties seem fundamentally insane; and this is not the way we think our country or our Government should look. If our Government use our money to oppose the interests of our National Parks we shall have to agree with Pogo that "We have met the enemy and they are us."

2.2. Exploration methods

2.2.0. Despite the organisational requirements of this evidence, we do not accept that mineral exploration—whether from preliminary surveys to, say, prospect drilling—is severable from extraction. Certain formal differences—e.g. that exploration is more likely to cause temporary nuisances than permanent devastation, and that its scale is altogether different than that of extraction—conceal the interdependence, economic and political, of the two processes. As Woolf J. remarks, "There can be no subtle distinction...between the two halves of an umbrella."

2.2.1. Neither do we accept that scout and prospect drilling are innocuous. In a completely uninhabited area, a completely drifted drilling does not "lead to any substantial interference with the owner's enjoyment of his land" in is no way stressed by the residents of Capel. Horan.2.2.2. Even where one bore-hole is tolerable, the cumulative effect of dozens together may not be. If you are already unamused by a drilling rig, we think you will agree that the noise is louder and more penetrating than that of a large bulldozer, and that the dust that is raised and which (in it is often compared); nor do tractors roar and whine continuously for twelve hours at a time. It is sometimes impossible to find drillings within a small area on a point that seems perfectly clear, such as whether a programme of scout drilling requires planning permission. That is true of prospect drilling is far less severe and permanent than that of mining, we do not think it can be entirely written off. We are not happy about proposed plans that imply that the nature of the industry's power to explore (with scout drilling) throughout large tracts without landowners' permission. What may be only a slight nuisance in one's back garden may be intolerable in one's back garden, and the law must take account of such potential inequities.

2.3. Exploration and planning law

2.3.0. The direct disturbance caused by mineral exploration, however intense at the time, is relatively easy to quantify from preliminary surveys to, say, prospect drilling and hence in the tendency of planning authorities to creep from one grant of permission to another without giving anyone a chance to do much planning. (There is a presumption that this tendency may be aggravated by the Government's new direct incentive to allow mining in order to be able to recover its exploration subsidies, which are only recoverable out of revenues from mineral exploitation.) Sandiford has laid great stress on the protection of National Parks by strict planning controls, but we have already stressed the Government's little evidence in recent years. We believe that the present system of planning controls will continue to be successful for permission drilling and indeed for patching-up after the decisions have been made) but quite unsuccessful for enforcing the protection of the Parks which are especially vulnerable because they suffer from government by chaos.2.3.1. We believe that present planning procedures are fatally defective. Briefly, the main flaws are:

a) There is no ordinary mechanism for obtaining interlocutory advisory rulings, except in large and extremely contentious points, but that seems perfectly clear, such as whether a programme of scout drilling requires planning permission. That is true of prospect drilling is far less severe and permanent than that of mining, we do not think it can be entirely written off. We are not happy about proposed plans that imply that the nature of the industry's power to explore (with scout drilling) throughout large tracts without landowners' permission. What may be only a slight nuisance in one's back garden may be intolerable in one's back garden, and the law must take account of such potential inequities.

b) Prerogative remedies are in general not available if planning discretion is abused, e.g. if an authority acts on a point of law.

c) Legal standing to pursue the substituted statutory remedy is extremely restricted (by bad case-law).

d) No official transcript or tape-recording is normally made of planning Inquiries, even those of the greatest national importance.

e) There is no statutory requirement that Inspectors' reports to Ministers be published in certain sorts of Inquiries, e.g. non-statutory advisory ones.

f) The statutory requirements of public notice for Inquiries are loose enough to permit their intent to be easily evaded.

g) Despite common-law principles to the contrary, there is no legal obstacle to a developer's seeking planning permission to continue what he has done (usually without it; nor can a planning authority be compelled to restrain (by an enforcement order or stop notice) a continuation of the development of the land already secured by the local planning authority." What about communications with the public?

h) Assurances given at Public Inquiries are not binding in law, and apparently are not always considered binding in fact.44 i) There appears to be no penalty for giving false information in a Public Inquiry.

m) Normal judicial procedures for eliciting evidence, e.g. discovery and subpoenas, are not available even in those Public Inquiries that amount to adversary hearings, and Inspectors have considerable latitude in excluding evidence.

n) Applicants are free to withhold information that would contradict their own testimony; the burden is on private objectors to obtain it. Nobody is required to tell the truth, nor the whole truth, nor nothing but the truth.

o) In some sorts of Inquiries, the disclosure of the needed facts is illegal by statute or by order.

p) It is open to large corporations with permanent legal staff to exhaust the resources of private objectors through prolonged Inquiries, perhaps on a series of applications only trivially different.

q) The success of planning procedure depends on equitable principles or on statutory requirements of justice, but on honesty and goodwill that are not always displayed.
I. The great discretion given to local executive authorities not subject to significant judicial review may tend to encourage corruption where permission is sought for activities which would have been sought by non-authoritarian undertakings.

II. Poorly framed regulations make it possible for a planning authority to be confused by the absurd argument that it is for the public good that a proposal which would benefit a private company should be allowed to go through. A well-expressed objection can be ignored, but a poorly worded objection can be taken to mean that the objection has no substance.

III. Exploration Inquiries are often befuddled by the absurd argument that since mining is fixed by nature it must take precedence over all other forms of land use. National Parks were not fixed by nature and could be put just anywhere. Many activities are fixed by nature, such as the dumping of floodwaters in sea-troughs, but that has nothing to do with whether they are a good idea. Likewise, there is no logic in arguing that minerals are fixed by nature and cannot be assigned the necessary legal priority. If copper, for example, is a strategic metal, then plannning our domestic resource of copper to the detriment of copper mines in Britain would decrease national security.

2.4. Exploration and the Environment

2.4.1. Apart from the planning issue of where exploration should be allowed, there is the basic question of whether it is to do the explorers, or the local community, or the nation, or the mineral company. The local community will benefit from the revenues, the employment, and the new mineral company, but its income will be made up of mining royalties rather than mineral charges. If the mining company is to gain substantial benefit from the exploration, the local community will be unlikely to arouse much local ill-will, and would have no reason to object to the high-level management and discussing tactics sometimes employed by mining companies seeking options. A shift from commercial to commercial exploration is that one who would benefit on exploration at all——would benefit everyone.

3. MINING

3.2. The scale of modern open-cast mining is such as to disturb the disturbance of land irreversibly: the topography is completely changed, the drainage altered, the ecosystem obliterated, and the soil fertility lost. We have therefore a clear case for giving larger scale of mining a higher priority than we gave it, and thus gain what would be a national asset. If one accepts this argument, one must then follow one's logic to its conclusion and conclude that leases benefiting from these concessions, and concessions for mineral exploration offered by the previous and present Governments often point the way to future national leases, which would then gain what would otherwise have been a national asset. If one accepts this argument, one must then follow one's logic to its conclusion and conclude that leases benefiting from these concessions, and concessions for mineral exploration offered by the previous and present Governments often point the way to future national leases, which would then gain what would otherwise have been a national asset.
to happen if you dig up large amounts of mineralised rock and leave them lying in the rain or sitting in pit-water (which you then pump out into the watersheds) and of course the metal has been leached away you cannot control where it goes, either as surface- or as ground-water. We note that many of the areas now being explored for the more toxic heavy metals (such as zinc, copper, lead, and nickel?) control large and fertile watersheds draining into important estuaries and bays of e.g. shellfish and anadromous fish.

3.1.9 We are confident that you will not be influenced by artists' impressions of neat little mines surrounded by tall trees and happy tourists; the ecological effects of large-scale mining are extensive, complex, and, to use the phrase of the Oxford English Dictionary, "beyond the comprehension of all of us. Sadly, mining companies are no more competent than we are to evaluate these problems and must call on you to do so. You should seek carefully researched evidence from appropriate statutory and academic bodies (in the time, but we think it must be done if you are to meet the demands of your terms of reference. We must also ask you not to rely on bland oral assurance, but to keep the door open to written answers as in the Carneddau, where it is said that though mutant grasses (adapted to lead-rich spoil) flourish, the grasses are much better able to take the metal into their leaves than the people that ate the same. Metals are conserved by nature if not by us. Finally, there is the very real and very fundamental problem of metal ion remobilisation and its potential to cause secondary problems— as in the Carneddau, where it is said that though mutant grasses (adapted to lead-rich spoil) flourish, the grasses are much better able to take the metal into their leaves than the people that ate the same. Metals are conserved by nature if not by us. Finally, there is the very real and very fundamental problem of metal ion remobilisation and its potential to cause secondary problems of large tracts of land and water just as the industry, and cannot be avoided by any novel features of a particular extractive scheme.

3.2 What does it cost people?

3.2.6. As for employment, any "brought" by mining is generally just "brought to order" and not made a part of the community. Any employment programme of large-scale mining is to be avoided. This has happened too often and too consistently for us to suppose it is a coincidence. We think this sort of aftermath is both avoidable and inherent in the nature of income and the industry, and cannot be avoided by any novel features of a particular extractive scheme.

3.2.8. As for employment, any "brought" by mining is generally just "brought to order" and not made a part of the community. Any employment programme of large-scale mining is to be avoided. This has happened too often and too consistently for us to suppose it is a coincidence. We think this sort of aftermath is both avoidable and inherent in the nature of income and the industry, and cannot be avoided by any novel features of a particular extractive scheme.

3.3.1 The threat of unmineable country teaches us anything, it is that the boom-and-bust economy is in the long run more damaging to the rural economy, and all the others involved in the industry, and cannot be avoided by any novel features of a particular extractive scheme.

3.3.2.1 Darlington's illuminating example of the sea-loch with a track on one side and a road on the other points very clearly to the vulnerability of rural cultures and rural advantage to contact with competitive cash-based urban economies. As for mining import, we do not think that the national interest in unspoilt countryside side to coincide with its maintenance in its present state, farmed by the same stable and indivisible way of life. It is very important to remember that after decades of rural depopulation, most people who still live in such areas do so because they want to be in cities. We think their choice must be respected. And we think the national economic interest in rural land if its wholeness and its health. It is no good snatching a short-term mining profit at the expense of a permanent social debt—the debt, of course, to be the business of other generations; nor would this short-term dichotomy stand up to rigorous accounting of the money that would have remained bound. It is thus impossible to restore ecologically stable vegetation to a surface-mined area until most of the normal weathering processes, even its very slow course, which no amount of scientific study can accelerate. More often it is impossible to restore anything at all because of the high concentrations of toxic metal ions, most of which are highly toxic to plants at concentrations or order $10^{-7}$ to $10^{-8}$. Where mutant metal-loving strains of grass can be tolerated, there are still problems—as in the Carneddau, where it is said that though mutant grasses (adapted to lead-rich spoil) flourish, the grasses are much better able to take the metal into their leaves than the people that ate the same. Metals are conserved by nature if not by us. Finally, there is the very real and very fundamental problem of metal ion remobilisation and its potential to cause secondary problems of large tracts of land and water just as the industry, and cannot be avoided by any novel features of a particular extractive scheme.

4. CONCLUSIONS

4.2 We hope you will introduce to
If we simply didn’t?” If we have got needed approach—the practice of asking, when faced with a proposal for something new, whether it might not be avoided, how their weren’t they? Are we as competent to weigh the wisdom of mining them as we are to discover them? Need we wait for the alternatives to arise if we will be forced to alternatives later, why not now? Once we begin to enumerate the positive advantages that flow from not renunciation in favour of conservation, to that extent Britain, and time has come not to exploit but to conserve, to that extent Britain, and time has come not to exploit but to conserve, to that extent Britain, and time has come not to exploit but to conserve, to that extent Britain, and time has come not to exploit but to conserve, to that extent...
39) The more conspicuous examples of failure of planning controls include the approval of an early-warning system and of potash-mining in the North York Moors National Park, more extensive oil-refineries near the Lake District National Park, china clay workings in and near the Dartmoor National Park, military exercises near the English and linen quarrying in the Peak District National Park, a nuclear power station and mineral exploration in the area of the Mawddach Estuary.


41) For early 1971 RTZ have formally maintained the view that their drilling of 48 scout and prospect holes near Capel Hendon, over a period of 23 months, did not require planning permission (which it did). This view does not seem to be supported by the precedent, sources, and authorities (e.g. the Ministry of Technology) that RTZ have cited; is not shared by the Department of the Environment, nor by the Welsh Office, the Merioneth County Council, or any of our Councils; and is hard to reconcile with RTZ's actions, e.g. in requesting prior permission for shallower and less extensive drilling in the open country of the Mawddach valley and oil refineries next to the Pembroke National Park, and an aluminium smelter near the area of the Ouse Valley, between Anglesley. This list is by no means complete.

42) Trans Inst Min Metall (A) 80: A70 (1971). Sir Andrew Bryan was the Mining Assessor who sat with the Inspector at the trial (at Dolgellau, 15-18 December 1970) into RTZ's application for permission to drill in Codi-y-Brenin and the Mawddach valley.

43) Indeed, things have come to such a pass that Mr J. S. Sheppard, the Crown Estate Mineral Agent, felt impelled to express his admiration for John Williams of RTZ for admitting "that they [RTZ] had just about finished looking into one particular Crown area and would then look to take out a prospection licence! He [Mr Sheppard] could not feel aggrieved - about such a minor misjudgement for he took the view that if they found anything, then it was for the benefit of the community as a whole..." Trans Inst Min Metall (A) 80: A124 (1972).

44) The Holyhead smelter of the National and Districts Minerals, and the Anglesey copper mines, for example, now emit several times the amount of fluoride promised at the Public Inquiry; The Ecologist June 1971, p. 34. There is some interesting points at pp 9, 33.

45) For example, the Alkali Inspectorate follow a policy of non-disclosure, also cf. the "Water Pollution Act", 1965, section 12 (9), 10 Eliz. 2 Ch. 50, and the Official Secrets Act. Under the former Act, the Chief Inspector is forbidden to disclose to anyone, (including the company's predecessor (14, Geo. 6 Ch. 64), the maximum first-offence penalty for polluting a river by a £200 fine—but could disclose to the company about who is putting what into a river, the penalty can be a £100 fine and three months imprisonment.


47) Kenneth Allsop, letter to The Times, 12 December 1971: "the various approaches to mining, employed by mining companies...include spreading the impression that they are engaged upon a Government survey to chart the nation's 'strategic reserves'...as provision against enemy attack...[This by twaddle]. The mineral extraction now gathering momentum is a business deal of miniscule financial benefit to the nation, of none whatever to the locality but producing lovely profits for the companies." Mr Allsop's country raisers may raise the question: in exactly what sort of notional national emergency would unmined reserves be useful if several months' rationing were imposed as provision against enemy attack...[This by twaddle].

48) The anti-Concorde Project: the stopping of the U.S. supersonic airliner last year is one of the major victories of the environmental movement. The cancellation of Concorde would save a million tons of oil.

49) The airlines are now being urged to place their orders. The next few months are crucial.

50) The ANTI-CONCORDE PROJECT is part of a world movement opposing all supersonic airliners. We need funds to intensify our work of influencing governments, airlines and public opinion.

Friends of the Earth are assembling a coalition of geologists, mining engineers, lawyers, and other experts to continue our intensive study of the implications of, and alternatives to, RTZ's possible opencast copper-mining at Capel Hendon in Merioneth.

We intend to carry the fight for Snowdonia to Public Inquiries, Parliament, and courts of law.

We should welcome your support—and your contributions to our SNOWDONIA DEFENCE FUND:

c/o FOE Ltd, 9 Poland Street London W1V 3DG.