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COMMUNICATION FROM THE COMMISSION TO THE COUNCIL

Relations between the European Community and the ACP States
in the mining sector

CONTENTS

INTRODUCTION

Negotiations between the Community and the ACP States "to examine what provisions shall ... govern /their/ relations" after the second Lomé Convention expires will be opening shortly, and the preparatory work is under way in Community institutions. At this juncture, therefore, the Commission feels that, without pre-empting the negotiating position to be adopted, it might usefully present a communication to the Council on the Community's relations with the ACP States in the mining sector. The second Lomé Convention contained a number of important new provisions in this field, and the early results should be carefully analysed to see whether that cooperation should be continued and stepped up.

The ACP countries, particularly those in Africa, are increasingly in difficulties. The main worry is food security, and the Commission has already inaugurated emergency operations in this field. In the longer term, we have to consider what part a productive sector such as mining can play in securing a real and lasting turnaround in the fortunes of these countries and in seeing that the best possible use is made of the limited development funds available.

Our analysis shows that the Community and the ACP States have a real mutual interest in the short term in developing a concerted policy for the exploitation of mineral resources. The ACP have important mineral reserves, and so far relatively little has been done to explore or

exploit them. Yet properly used this natural wealth could make a significant contribution to development, earning money, helping the balance of payments position, stimulating industrialization, creating jobs and raising the level of technology. The Community for its part is the world's largest importer of raw materials, and has a vital interest in maintaining and diversifying its sources of supply. The survival of its industry, and hence its own survival as a major economic power, is at stake.

So the basis for fruitful cooperation is there. But two points must be made:

- firstly, where mineral resources have been worked, their contribution to development has fallen short of expectations;

- secondly, mineral resources in the ACP countries, particularly those in Africa, seem less attractive to potential mining investors than those in other continents.

There is thus considerable potential which is still unexploited, or fails to provide the returns that might be expected. Recent operations under the current Lomé Convention, however, have shown that it helps if the two sides can gear the development objectives of the ore-producing countries to the supply needs of the importing countries. Mining development strategies worked out by the ACP countries and supported by the Community would have two advantages: they would have an appreciable multiplier effect on ACP development efforts, and they would make for greater geographical consistency between decisions on mining investment and those on official development spending.

In this communication the Commission reviews operations under the current Convention and its predecessors, analyses the Community's import dependence and looks at ACP potential, going on to suggest a number of guidelines for future operations.

This paper does not specifically mention energy products - coal, oil, gas and uranium. There are problems with these products, and they call for special measures which can only be discussed in depth in studies dealing with the subject of energy as such. Nevertheless, most of what follows applies to these products as well, and similar strategies could be mapped out.

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1. Operations to date

The conventions which preceded Lome II did not single out the development of mineral resources for particular attention and, under the first Lomé Convention, EDF money could not be used to subsidize loans granted by the EIB from its own resources for mining projects unless such projects were located in the least-developed, landlocked or island states. This was a reflection of over-optimism about the profitability of the mining sector, and the feeling that it would be a waste of public money to subsidize such operations. The result was that hardly any action was taken, barring a few EIB operations.

When the second Lomé Convention was being worked out, the negotiators had their attention drawn to a number of pointers indicating a marked slowdown in mining activity in the ACP States: prospecting activities were falling off, there was a dearth of new projects, and existing production facilities were falling into disrepair. It was recognized that there was a need for governments to take on some responsibilities in this sector and not leave it all up to private operators, and accordingly a set of provisions was incorporated in Lomé II to enable the Community to support ACP States in their efforts to develop or maintain mining operations.

Lomé II therefore puts the familiar arsenal of financial instruments - grants, special loans, risk capital, subsidized EIB loans - at the service of mining development. But in addition it provides a number of new instruments specifically designed with mining and energy development in mind: unsubsidized EIB loans for mining or energy projects of mutual interest to the Community and the ACP States, a special financing facility known as Sysmin to shore up threatened production, and the possibility of concluding "specific" agreements to encourage European investment in mining or energy produc'.s.

Such a spread of facilities enables support to be provided at every stage of a mine's development or operation, from the establishment of sound administrative structures, the training of staff, surface and subsoil exploration and the evaluation of resources to the setting-up of joint ventures, the financing of engineering and basic infrastructure work, and actual capital investment. Financial support, encouragement and a degree of protection can also be given to Community operators keen to operate or invest in ACP States. And Sysmin can provide help with the maintenance or rehabilitation of declining or threatened production capacity. Note that the Convention does not include any system of actual guarantee which would provide cover for ACP countries against exploitation of their resources without concomitant benefit to their development and for operators against "non-commercial risks". This is something which merits further consideration.

It is too early to obtain a complete picture of operations under the second Lomé Convention, but available results indicate that cooperation in the mining sector underwent a rapid and remarkable expansion in 1981. The EIB in particular was very active, with a wide range of operations from the financing of studies and acquisition of holdings using risk capital, to capital investment. In 1981 almost half of the funds committed by the EIB went to the mining sector (e.g., the Ok Tedi copper deposits in Papua New Guinea and a copper-bearing spoil processing project in Zambia), usually for operations cofinanced with other sources of funds. Exploration and studies were financed from programmable EDF resources (aerial geophysical survey in Gabon, targeted prospecting in Cameroon, geological mapping in Benin, coal in southern Africa, etc.). In 1982, however, the scale of operations in the mining sector was more modest (though the first two Sysmin operations were undertaken), and the results for the early part of 1983 confirm the slowdown in the rate of mining investment and hence of Community activities in the sector. It would therefore be premature to attempt an assessment of the overall contribution made by Lomé II to mining development.

Financial commitments at May 1983 were as follows:

		million ECU
Lomé I	programmable EDF resources	8.7
	EIB risk capital	10.2
	subsidized loans	33.0
	Total	51.9
Lomé II	programmable EDF resources	13.4
	Sysmin	95.0
	EIB risk capital	14.2
	subsidized loans	25.0
	unsubsidized loans	40.0
	Total	187.6

A fuller analysis is necessary of the Community's and ACP States' mutual interest in the development of mineral resources, and is offered in the following chapters.

[1] To two ACP States classed as least-developed - Mauritania and Upper Volta.

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2. The Community's dependence on raw material imports

2.1 Commodities which have to be imported

It is currently reckoned that, overall, the Community[1] is dependent on imports for 75% of its raw material supplies, as against 90% for Japan and a mere 15% for the United States. Those percentages reflect orders of magnitude, of course, and are too general to have any precise economic significance, but they do give an idea of the relative positions of the major industrialized powers.

Annex 1 gives a product-by-product breakdown of the Community's import dependence, which varies widely, from 25% in the case of fluorine to almost 100% for titanium, zirconium, niobium, tantalum and manganese. Apart from fluorine, the only other commodities below the 50% mark are iron and lead.

The sources of supply by volume (Annexes 2 and 3) and value (Annex 4) also vary considerably from product to product, but tend to be strongly concentrated; thus there is a high level of dependence on imports of chromium and platinum[2] from South Africa, vanadium from the Eastern bloc countries, cobalt from Zaire and Zambia and molybdenum from North America.

In the developing world, Africa[3] is the Community's most important source of non-energy raw materials, supplying 20% by value of total imports. Africa is a major supplier of cobalt, phosphates, copper, manganese and fluorine, Latin America of niobium, antimony, iron, molybdenum, aluminium, zinc and copper, and Asia of tin, nickel,

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[1] The tables refer, for the period before 1 January 1981, to the nine-member Community.

[2] Platinum is not included in the tables, however, as no meaningful statistics are available.

[3] Excluding South Africa, which is included in this paper among the industrialized countries.

and tungsten. The Eastern bloc countries are important suppliers of vanadium, fluorine, mercury and tungsten.

But the Community's major suppliers in value terms are industrialized countries - Australia, Canada, South Africa and the United States. These countries have rich mineral resources and old-established mining industries. They are the homes of most of the big multinational mining companies, leaders in the development and operation of mines, with whom Community users of these commodities have inevitably to deal.

2.2 Dependence and vulnerability of Community industry

The structure of the markets for these commodities, and the fact that they are basic inputs for the whole of industry, render the Community even more vulnerable.

A salient feature of the market structure is the very strong position of the mining companies in relation to the producing countries despite the number of nationalizations which have taken place. The companies generally turn out to be indispensable; they can provide the strong management, high technology and skills and mobilize the vast amounts of capital generally needed for investments in this sector. The world market is dominated by these mining concerns, the most important of which are North American or South African. The Community's own mining industry has the quality, but not the scale, so for a good part of its supplies the Community is at the mercy of planning and decision-making carried out elsewhere, involving the risk that in a crisis it might not receive high enough priority. Also, processing industries which lack proper control over their sources of supply are always vulnerable to a "pincer movement" by vertically-integrated mining concerns, which can raise the price of the raw material while cutting the price of the processed product.

As regards the structure of industry, its complexity is such that dependence can and often does (e.g., the bauxite-alumina-aluminium chain) come at a stage other than that of ore production, so that industry is vulnerable to all sorts of contingencies. As not all the Community's needs are of the same strategic nature, the different uses of primary products have to be classified in relation to the possible crisis scenarios - a complete supply breakdown, temporary or permanent, sudden price rises, vertical integration in the producing country, etc. Only systematic studies of the various scenarios and their implications for the Community's economy can elucidate the problems in detail. A number of such studies have been commissioned in the Member States, either by government departments or by mining companies. For obvious reasons, they are not usually circulated. Fragmentary and sometimes alarmist[1] as they are, these studies nevertheless have the merit of highlighting the seriousness of the problems and at the same time circumscribing them. A similar but more comprehensive exercise is called for at Community level, for a number of particularly critical commodities.

2.3 The Community's attitude to the procurement of supplies

Mineral supply policy varies from one Member State to another. Some operate policies and maintain financial instruments specifically aimed at improving and diversifying their sources of supply or building security stockpiles of minerals considered strategic because of their origin, importance to Europe's industry and the lack of readily available substitutes; others rely for their supplies on the markets. There is a need for coordination in this field.

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[1] One German study concluded that if Germany's chromium supplies were interrupted the country's GNP would fall by 20%!

One feature is common to all Member States, however: the main responsibility for supplies is in the hands of industry, either mining companies or mineral users. It has been industrial operators who have ensured that the Community has on the whole so far enjoyed a satisfactory supply position.

Nevertheless, concern is now being felt on a number of points.

(a) The desire (a) to obtain supplies as cheaply as possible, particularly in the current economic situation, and (b) to minimize risks leads Europe's businessmen to favour mines in the industrialized or industrializing countries - i.e. countries whose industry competes with our own, or is likely to do so shortly. Should an unexpectedly rapid economic upturn or the mining out of a particular commodity put pressure on supplies, Europe could hardly expect to be a priority customer. Nor is it clear that these are the countries with which the Community can most easily balance its mineral imports by exports from other sectors of industry.

(b) Within this overall geographical concentration, however, European interests tend to be dispersed over a number of the larger deposits, where they are in a minority position against other industrialized countries' own stakes. Here again Europe runs the risk of being "squeezed out", though this can sometimes - only sometimes - be offset by means of cross-holdings.

(c) There is a clear tendency on the part of European companies to invest in, or conclude supply contracts with, countries not linked to the Community by a special relationship of the sort that exists with the ACP States. This means that there is often no element of interdependence to offset the drawbacks of dependence.

In this respect the Community is behaving differently from the other industrialized countries - the United States, with its enormously strong position throughout the whole American continent, the USSR and the Eastern bloc countries, which have so far been self-sufficient, and above all our main competitor on the world market, Japan. With virtually no raw materials of its own, Japan has used long-term contracts and unwritten but irrevocable undertakings, not to mention the financial backing for investment in this sector available from a variety of national bodies, to forge close ties of interdependence with Asian and Pacific countries, including Australia, giving it real security of supply.

The volume of supplies controlled by European companies is one important factor in assessing the Community's vulnerability to various type of supply crisis. But it is also necessary to bear in mind the barter contracts whereby, for example, a German company buys a commodity in Papua New Guinea and sells it again to a Japanese firm in return for an identical commodity bought by the latter from Spain. More important than the actual volumes imported and controlled is the idea of market transparency; in the event of an increase in world prices, the only things which will set the Community apart from other countries will be the degree of integration, long-term fixed-price contracts and stockpiling policies.

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3. World market trends for mineral commodities

Markets for mineral commodities are characterized by an extremely low elasticity of supply, which to some extent explains the wild price fluctuations. The supply rigidity goes in both directions - upwards, because of the very long lead times between initial exploration and the bringing of mines into production, and downwards, because of such factors as the highly capitalistic nature of the mining sector. Demand, on the other hand, is directly tied to the level of economic activity. The recession has led to a fall in prices and hence indirectly to economic and social instability in the countries whose major source of income is mineral exports. At the same time, investment costs have soared.

The combination of these different factors has produced a very marked falling-off in investment, to below the level which estimates made in the late 1970s suggested was necessary to ensure that world demand for the commodities in the period 1985-90 could be met. Projects undertaken in the Western world in the period 1979-83 for the six main metals - iron, copper, aluminium, zinc, nickel and lead - represented an investment rate of no more than $10 000 million a year, over 20% below forecast requirements. However, the forecasts were based on demand estimates made by the UN before anyone realized how long the present recession would last, and the growth of world demand for commodities has slackened. The latest returns from European companies show an upturn in mining investment in 1981, particularly in developing countries, but in the ACP countries at least the trend does not appear to have been sustained.

At the same time there is an increasing imbalance in the geographical spread not only of capital expenditure but of exploration expenditure. As far as Community companies are concerned, the imbalance is clear from the following table, set alongside the published figures for the breakdown of reserves (see Annexes 5, 6, 8 and 9).

	Reserves[1]	Exploration		Investment
		1960	1980	1980
Market economies	38 %	60 %	84 %	82 %
State-trading countries	23 %	-	-	-
Developing countries:	39 %[2]	40 %	16 %	18 %
Africa	13.5 %	-	3 %	2 %
Latin America	14 %	-	10 %	15 %
Asia and Oceania	11.5 %	-	3 %	1 %
				-

Annexes 8 and 9 contain figures supplied by the Community mining industry, and they show just how marked the trend still is. There was a slight upturn in exploration in Africa at the beginning of the present decade, but there is no comparison with the scale of activities in Latin America.

The banks' increasing role in the financing of mining investment is also leading to the adoption of banking criteria for risk evaluation (in particular, the host country's balance of payments situation and indebtedness are increasingly being taken into consideration), and this naturally militates against the developing countries.

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[1] Average arithmetical value.

[2] Value for all ACP, OCT and OD: 12%.

4. The ACP States' mining potential

4.1 Resources and reserves

While potential resources of minerals as a whole may be thought of as distributed evenly throughout all the world's great land masses, discovered reserves are directly proportionate to the amount of exploratory effort expended. This explains why published figures put the industrialized countries' proven reserves higher than those in the developing countries, despite the fact that the latter cover twice the area.

Not only are exploitable reserves proportionate to the level of exploration, they also depend on various technical and economic factors. A price rise, for instance, will have the effect of increasing the volume of exploitable reserves, as happened in the case of Australian bauxite: in 1950 Australia's reserves were considered negligible, while today they account for 20% of the world total.

Annexes 5 and 6 show official statistics for exploitable reserves of the 21 main commodities. In the case of the developing countries, and the ACP in particular, it is generally recognized that real mineral wealth (including any seabed resources) exceeds what has so far been listed. Expenditure on exploration in this part of the world has been notably inadequate, particularly through the 1970s, just at a time when revolutionary technical developments were increasing the rate of new discoveries.[1] The developing countries are also put at a disadvantage by the concept of economically exploitable reserves, in particular because all the basic infrastructure has to be provided, generally at a high cost, before

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[1] New techniques such as remote sensing can be used to scan enormous areas quickly, even in difficult conditions (heavy tree cover, for instance), making it possible to optimize exploration on the ground.

deposits can be worked.

Experts agree that the ACP States' aggregate resources are probably considerable.[1] As far as listed reserves are concerned (Annex 6), Africa has the edge over Latin America and Asia for aluminium, chromium, tantalum and phosphates, while the ACP group as such has important reserves of aluminium, chromium, tantalum and, to a lesser extent, cobalt and copper (see Annex 5). The tiny figure for iron ore, despite the exploration which is going on in Mauritania and Liberia and the recognized potential of Senegal, Guinea and Gabon, confirms what is said above regarding the real significance of such figures.

4.2 Mining in the ACP States

The ACP States are already major producers and exporters of mineral commodities, and in particular of:[2]

Copper[3]:	Zambia (4th), Zaire (5th), Papua New Guinea (10th)
Cobalt[3]:	Zaire (1st), Zambia (2nd)
Phosphates:	Togo (8th), Senegal (12th)
Bauxite[3]:	Guinea (2nd), Jamaica (3rd), Suriname (4th),Guyana (7th)
Alumina[3]:	Jamaica (3rd), Suriname (6th),Guinea (10th)

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[1] The World Bank report on "Accelerated Development in Sub-Saharan Africa" (1981) notes that the continent of Africa has always been regarded as one of the world's great reserves of mineral wealth.

[2] The figures in brackets indicate the country's ranking in the world production stakes.

[3] Excluding Eastern bloc countries.

Manganese:	Gabon (3rd)
Chromium:	Zimbabwe (5th)
Iron:	Liberia (11th), Mauritania (15th)
Tin:	Zaire (9th), Nigeria (12th), Rwanda (14th)
Nickel:	Botswana (10th), Zimbabwe (11th)
Diamonds:	Zaire (1st), Botswana (4th), Ghana (6th), Sierra Leone (8th), Liberia (9th)

The majority of these commodities are exported to the Community, especially in the case of the African ACP States.[1] Annex 7 shows that the proportion of mineral commodities in total Community imports (excluding oil) from the ACP has been increasing steadily and is now considerable: 30% in 1980.

The ACP mineral producers' dependence on mining (defined as the percentage of their earnings from minerals as a proportion of total export earnings) tends to range from the considerable to the excessive: of the order of 90% in the case of Zambia and Guinea, 70% for Suriname, Liberia and Mauritania and 50% for Togo, Zaire and Papua New Guinea.

In most cases the ACP States' management of their mining sectors is open to certain criticisms. Some of them, faced with the urgent short-term need for foreign exchange, force even publicly-owned mining companies to keep up a rate of production which far exceeds the economic optimum and makes it impossible to carry out proper maintenance or replacement of equipment. In some cases, also, public administrative structures are not geared to the requirements of modern business efficiency, so that over and

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[1] The World Bank report notes that Africa is Europe's largest supplier of mineral commodities.

above any desirable measure of state control, bureaucratic inertia and red tape paralyse the productive side of operations. The resultant continual irritations can make life almost impossible, putting off potential investors and explaining at least in part the mining sector's current lack of interest in the ACP States.

On the other hand, mining has not really helped the mineral-producing ACP States with their development, either. Usually it has simply been a source of revenue which has helped governments pay for oil and other imports, and build some infrastructure, but has failed to provide the necessary stimulus to the rest of the economy, even in the related industrial sector. In some cases, indeed, the development of mining has probably weakened rather than strengthened the economy, an all-too-familiar syndrome in "split" economies where a modern and a traditional sector co-exist without intersecting.

Often the mine simply exists in an enclave, and has no proper links with the country's economic, social or human fabric. When this happens it sucks in people from the countryside, worsening the problems of food deficit and urban overcrowding, while at the same time maintaining the currency at an artificially high rate of exchange.

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5. The mutual interest - using the mining operations to generate development

As we have already seen, the Community is almost wholly dependent for certain commodities - manganese, chromium, cobalt and molybdenum - on imports from one or two countries (and sometimes from one or two transnational companies). There is an increasing trend towards the concentration of sources of supply for other commodities as well.

It is therefore directly in the Community's interest to see more new sources of supply developed, and developed in countries with which it has a special relationship.

In more general terms, the Community depends to a considerable extent for its long-term growth on the overall development of the ACP countries, which will offer it substantial export markets and should be taken into account in planning redeployment. The Community therefore has an interest in mining development in the ACP States, considered as a catalyst for European economic recovery and balanced industrial development.

It also has to be remembered that the Community has a development policy, in pursuance of which it commits large sums of money in certain countries - including over 1 000m ECU a year in black Africa. It is essential that the best possible use be made of this money if public opinion in a recession-hit Community is to be rallied behind a policy which has proved, in the first development decades, something of a disappointment. A good way to do this seems to be to concentrate on a productive sector which can generate a multiplier effect. Faced with the imperative need for food self-sufficiency, the ACP States will be slowing down the expansion of cash crops, and their industry is developing only slowly, so mining as a productive sector should not be neglected.

The benefits of mining to the ACP countries have already been mentioned - wealth creation, the provision of training, job creation, transfer of technology, etc. These can be valuable assets, particularly where mining revenue eases the pressure of the oil import bill, which often strangles economic development at birth. But they will not be enough unless the revenue or commodities produced by mining, which after all comes strictly speaking within the primary sector, are used to generate development in other spheres.

Indeed, the benefits accruing from mining may even be cancelled out unless care is taken to eliminate the ill-effects which, as we have seen, arise from the failure to integrate the mining operations into the economic, social and human fabric of the country.

To preserve the ACP's interest in mining development, therefore, what is needed is a development-orientated approach to mining. No single model will do; undue standardization would exalt doctrine over pragmatism and be unlikely to produce positive results, since the problems vary depending on the commodity, region, industrial users and marketing conditions concerned. But a customized approach taking full account of all the factors upstream and downstream from the mining development could bring the ACP States real benefits.

The precise framework of mutual interest must therefore be constructed on a case-by-case basis, reconciling the Community's supply requirements with the imperatives of ACP economic and social development. This leads us to the concept of mining strategies to be run in the joint ACP-EEC interest.

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6. Mining strategies

6.1 General outline

Obviously, the mining strategies come within the sovereign responsibility of the ACP States concerned. The Community can provide backing, if desired, at both the planning and the implementation stage. The strategies will as a rule involve the operators and should therefore be coordinated with them.

Such cooperation will call for a "customized" combination in each case of various financial and other instruments, most of which already exist - EDF grants and special loans, EIB risk capital and loans, subsidized or otherwise, Sysmin, ECSC resources, Community budget resources, and specific agreements.

The Community would be contributing essentially to:

(a) the discovery of resources (preparatory work and optimized prospecting)

(b) opening up of mines

(c) rehabilitation of productive machinery

(d) creating the environment for operations - linking mining with overall development, stimulating economic development, integrating the mining operations into the social fabric.

The Community can use its whole arsenal of instruments to provide financial support for mining strategies, whether or not within the framework of agreements concluded with the ACP States. By guaranteeing thorough appraisal and hence staking its own prestige on the mining operations in which it is involved it can attract other sources of funds as well - the World Bank, bilateral aid, Arab Funds and banks, commercial banks - to join in cofinancing schemes. It can also encourage Community operators to invest by backing various guarantee arrangements.

6.2 Provision of administrative facilities

Both the overall mining policy and particular projects will call for skilled and enterprising national or regional administrative services. One reason for the ACP States' backwardness in the mining sector is the inadequacy of their administration, which not only fails to generate the initiative for prospecting, but leads to problems with the supervisory function - negotiations with operators, product users and financiers, management. Here the Community could provide training and technical assistance.

6.3 Exploration

Of a total of $1 500 million[1] spent each year on prospecting, only $350 million spent in the developing countries (as against $600 million in the United States), and less than $50 million of that in Africa, where, according to the World Bank report mentioned previously, annual expenditure in excess of $100 million is required. The lag in exploration in ACP countries is therefore likely to grow even worse, particularly as new prospecting techniques are so much more sophisticated and expensive.

Exploration is an expensive business, and there is no question of applying to the vast area covered by the ACP States[2] the sort of systematic prospecting carried out in some industrialized countries such as France, particularly as the findings rapidly go out of date.

The following operations might be undertaken:

(a) Coverage of black Africa and the Indian Ocean by remote sensing, using satellites, to be financed from the EDF (funds set aside for regional cooperation) or, if appropriate, the Community budget.

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[1] Total world expenditure excluding Eastern bloc countries.
[2] 21 million km^2, as compared with the Community's 1.6 million km^2.

(b) Prospecting in certain regions for specific minerals, e.g. chromite in East Africa, niobium and tantalum in the copper belt; proving of deposits, e.g. coal in southern Africa, iron in West Africa. EDF (regional cooperation), EIB (risk capital).

(c) Inventories of mining countries' potential resources (in Gabon, Botswana, etc.), to be financed from the EDF (national programmes).

(d) Incentives to mining companies to contribute more to the work of prospecting, either by acquisition of holdings or cofinancing (EDF national or regional resources; EIB risk capital) or by granting of priority access to discoveries.

6.4 Opening up of mines

As well as being under-explored, the ACP countries find it difficult to mine those reserves which have been identified. There are a number of reasons for this:

(a) The shortage of the skills needed in government departments to cope with the complexities of a mining project, which requires action on three fronts: engineering studies, the search for finance, and the marketing of the commodity. The Community can help here by providing training and technical assistance (cf. 6.2) and negotiating with cofinancing partners.

At the marketing stage, it should support and encourage coordination with Community operators and customers (see 6.3.d).

(b) Lack of infrastructure, especially for transport, but also for energy and telecommunications. Possible contributions from EDF, EIB, cofinancing.

This sort of infrastructure is extremely expensive, and can hardly be economically viable for the mining operation alone. By their very nature such works need to be publicly financed, and setting the user tariff for the provision of the services to industry is a delicate matter. The Community could help the ACP States to be better prepared for this type of negotiation.

(c) Mutual suspicion between governments and mine operators - the former fear that they will not get their due share of the wealth created, the latter are nervous of "political risks". By becoming a party to arrangements between governments and operators, the Community can help restore the necessary climate of confidence and resist the continual irritants which erode the contractually-guaranteed conditions. In this context, the specific agreements provided for in Annex VIII to the second Lomé Convention could offer an appropriate legal framework for balancing mining companies' interests with those of producing countries.

To improve the dismal investment situation, it might be helpful if the specific agreements were framed to strike a longer-term balance of interest between the parties, so that:

(i) a project covered by a specific agreement would contribute effectively to the country's development;

(ii) European mining or financing concerns would be protected against unilateral changes in their contracts; this would be easy to fit into the existing system of guarantees;

(iii) in the event of a major change affecting the project itself or its background conditions, the contract could be adjusted accordingly by means, if necessary, of an agreement at the political level.

(d) The ACP States' lack of own resources, which means that they have to go to external sources of funds for all, or virtually all, project financing. Such sources of finance, or insurers, may be put off by these countries' indebtedness. Here the Community can contribute to funding (EIB, ECSC or other Community instruments) and lend its backing in the search for investors or cofinancing partners.

6.5 Project environment

In a developing country with its still delicate social and economic fabric the setting up of a modern mining complex can act as a powerful destabilizing force. The mine attracts a surplus of workers from the land, speeding up the general drift from the countryside, and spawns superfluous "services" in the mining towns which spring up. It increases the cost of living.

The immediate reaction of both governments and companies to these dangers is to set up artificial barriers between the mine and its environs, in other words to accept or even promote its isolation. This is economically unsatisfactory (see 6.6) and can be disastrous in social and human terms. It should be the government's prime responsibility to integrate the mine into an overall development concept, see to the necessary town planning and provide suitable housing and social infrastructure, i.e. facilities for education, health services and leisure. The Community can contribute to this through the EDF.

6.6 Economic stimulus

A mine contributes to a country's overall development in the first instance by creating wealth, i.e. via the tax revenue it provides. Programming and strategic planning in other fields, including food and human resource strategies, will be conducive to the rational use of this mining revenue.

However, if a mine is to act in the wider sense as a development catalyst, directly generating activity in related sectors, upstream (engineering, supply of capital goods and materials) and downstream (primary processing, semi-finished products, metalworking), mining development must be tied in as tightly as possible to energy and industrial development. The Community can contribute to this either by putting up funds for studies, research, and energy or industrial products or by promoting regional cooperation between neighbouring countries which have intersecting mining and energy interests and can offer a larger market.

Not only must the mining sector be integrated with the rest of the economy, therefore, there is also a need for vertical integration, with some downstream activities, notably first-stage processing of ore, being relocated in the ACP States, in conjunction with a measure of industrial shake-out in the Community; adjustment in this field is necessary, or will shortly become so, since the Community first-stage processing industry is steadily becoming less competitive.

Strategies combining aid to ACP States to develop local processing operations with a redeployment of Community manpower and financial resources into higher added-value downstream activities would in principle appear to be in the mutual interest.

6.7 Maintaining the flow of finance in the mining sector

In view of the structure of the world commodity markets and the role of transnational companies in those markets, there would appear to be no need for a comprehensive system for the stabilization of earnings from mining. On the other hand:

(a) Community support to maintain a source of cash flow threatened by temporary problems with mining operations can be most valuable; this is the principle behind Sysmin in Lomé II, which could be incorporated, subject to certain procedural improvements, in the next convention;

(b) other approaches could also be considered, e.g. backing for the setting up of national or regional mine revenue stabilization funds.

For these mechanisms to remain operational and effective, a degree of price and supply stability in the international market would be essential. Since there is no prospect of a self-contained ACP-EEC system of regular supplies at guaranteed prices, if only because that would be contrary to GATT rules, the Community and the ACP States should take on a leading role in the negotiations for international mineral commodity agreements designed to guarantee prices which are fair both to producers and consumers. This would entail the Community's coming up with a common policy on this issue and the ACP States' making up their mind to play an active part in the negotiations.

CONCLUSION

A policy is needed for relations between the European Community and the ACP States in the mining sector which reconciles the more rational and fruitful use of development funds with the Community's raw material supply requirements.

The main objective of such a policy would be to promote cooperation between ore-producing countries, Community Member States and the companies which mine or use ores. It would aim to further the interests of all parties in a spirit of joint development.

When ACP States formulate mining strategies designed to attain these objectives, the Community should support them by every means at its disposal. There are three areas especially in which such contributions could be made:

1. laying the foundations for mining development - administrative structures, research, exploration;

2. promotion of mining operations - technical assistance, training , development of auxiliary infrastructure, financial and other incentives to European investors, contribution to costs of project financing and maintenance and/or rationalization of existing production facilities;

3. measures to ensure that mining development contributes more to the social and economic development of the ore-producing countries - project environment, economic stimulus, international dialogue between producers and consumers.

COMMUNITY IMPORT DEPENDENCE (1978)

Commodity	% of economic dependence*
Aluminium	65.2
Copper	67.2
Lead	45.0
Tin	77.8
Zinc	52.0
Iron	45.4
Manganese	98.0
Cobalt	95.4
Chromium	92.6
Molybdenum	95.3
Niobium Tantalum	99.5
Nickel	79.6
Vanadium	97.2
Tungsten	72.9
Mercury	56.1
Antimony	64.8
Titanium	99.3
Zirconium	97.7
Fluorine	28.9
Phosphates (P_2O_5)	71.8

*Here extra-EEC imports as a percentage of global demand (consumption + extra-EEC exports + stock variations) (in tonnes).

ORIGIN OF COMMUNITY SUPPLIES BY VOLUME (1978)

(%)

Commodity	Extra-EEC imports t. metal	Developed countries	of which						Developing countries	of which	Eastern bloc	Other
			Australia	Canada	EFTA	Other Eur.	S. Africa	USA		ACP (+ OCT)		
Aluminium	3.653.608	50,3	25,2	0,2	15,4	7,8	< 0,1	0,9	46,5	45,4	3,2	-
Copper	2.088.560	34,4	3,4	7,8	5,2	3,9	9,1	4,5	58,1	34,0	7,5	-
Lead	652.126	71,4	34,1	13,3	12,7	3,3	3,8	4,1	20,6	4,2	4,5	3,5
Tin	61.453	13,4	3,2	0,1	0,9	1,1	3,0	4,8	83,9	7,6	2,7	-
Zinc	1.070.970	71,2	8,8	38,0	16,4	3,9	2,3	1,8	25,7	3,7	3,0	-
Manganese	1.448.596	62,1	3,1	0,1	11,8	2,8	43,7	0,3	33,6	20,5	2,1	2,2
Cobalt	17.000	9,3	-	4,5	2,1	0,1	0,3	2,1	90,5	83,9	0,2	-
Chromium	527.173	77,8	< 0,1	< 0,1	14,5	11,8	50,2	0,6	13,1	5,2	8,7	0,4
Molybdenum	36.719	85,4	< 0,1	19,3	2,8	0,2	-	63,0	14,2	-	0,4	-
Niobium + Tantalum	3.876	30,6	-	23,0	-	0,1	7,0	2,8	57,8	-	-	11,6
Nickel	177.430	67,2	8,0	24,6	8,0	11,5	9,1	5,8	22,4	16,1	10,4	-
Vanadium	9.841	50,1	-	-	21,3	-	26,2	2,5	7,5	0,3	42,4	-
Tungsten	6.836	45,0	6,6	4,1	21,3	2,3	4,2	5,7	36,0	3,3	16,6	2,4
Mercury	994	60,3	0,3	-	8,2	46,4	-	5,4	21,1	-	18,6	-
Antimony	20.810	18,4	6,6	2,2	1,4	3,8	4,2	0,1	42,2	-	5,4	34,0
Titanium	506.314	97,2	34,6	25,6	31,9	0,1	0,1	0,2	0,7	< 0,1	2,1	-
Zirconium	76.207	99,6	89,9	< 0,1	0,1	< 0,1	6,6	2,9	2,1	-	0,7	-
Fluorine	123.610	34,2	-	0,1	5,9	20,8	7,3	< 0,1	29,7	17,1	32,9	3,2
Phosphates /P_2O_5	5.338.490	24,4	-	< 0,1	0,5	0,1	0,3	23,5	63,9	16,3	1,6	10,1
Iron	69.364.962	48,6	11,8	9,7	18,2	1,7	6,5	0,6	47,9	17,7	3,5	< 0,1

Annex 3

ORIGIN OF COMMUNITY SUPPLIES BY VOLUME (1978)

IMPORTS FROM DEVELOPING COUNTRIES

%

Commodity	Developing countries	Africa	Latin America	Asia
Aluminium	46,5	30,6	15,6	0,3
Copper	58,1	30,7	23,0	4,4
Lead	20,6	8,4	12,0	0,2
Tin	83,9	8,6	22,5	52,8
Zinc	25,7	3,3	21,5	0,9
Manganese	33,6	22,4	10,9	0,3
Cobalt	90,5	90,4	0,1	-
Chromium	13,1	6,4	0,4	6,3
Molybdenum	14,2	-	14,2	-
Niobium + Tantalum	57,8	2,9	54,7	0,2
Nickel	22,4	-	4,2	18,2
Vanadium	7,5	6,3	1,2	
Tungsten	36,0	3,3	10,7	22,0
Mercury	21,1	21,1	-	-
Antimony	42,2	1,1	29,8	11,3
Titanium	2,1	-	-	2,1
Zirconium	0,3	0,1		0,2
Fluorine	29,7	13,5	16,2	
Phosphates	63,9	57,4	0,3	6,2
Iron	47,9	18,8	28,5	0,6

ORIGIN OF COMMUNITY SUPPLIES BY VALUE (1980)

Commodity	Extra-EEC imports '000 ECU	CLASS I	of which						CLASS II	ACP + OD + OT	of which				CLASS III	Secret
			EFTA	Other Eur.	USA	Canada	Australia	SA + Namibia			Africa	Latin America	Asia	Other		
Aluminium	2.025.137	67,7	37,1	11,1	11,2	2,4	5,9	< 0,1	27,2	22,7	10,8	15,8	0,6	-	5,1	-
Copper	3.602.513	34,9	4,8	3,9	7,3	8,0	2,7	7,4	58,9	30,7	27,5	26,7	4,7	< 0,1	6,2	-
Lead	915.998	74,6	8,1	4,9	11,3	7,0	38,5	4,7	21,9	1,8	6,6	12,6	1,5	1,2	3,5	-
Tin	717.311	9,3	0,6	0,3	3,1	0,4	2,1	2,5	89,0	7,9	8,1	15,1	65,8	-	1,7	-
Zinc	480.136	63,4	16,5	7,6	3,7	28,4	5,1	1,8	34,4	3,2	2,7	27,9	1,4	2,4	2,2	-
Iron	2.632.913	51,6	15,9	1,5	6,8	15,1	7,5	5,5	44,4	14,5	15,6	28,5	0,3	< 0,1	4,0	-
Manganese	326.603	72,7	32,8	9,1	2,3	0,1	1,8	25,8	22,3	14,5	16,5	5,5	0,3	-	4,0	1,0
Cobalt	630.392	13,9	4,7	< 0,1	1,3	4,9	0,4	< 0,1	86,0	82,7	86,0	< 0,1	< 0,1	-	0,1	-
Chromium	334.703	67,1	12,2	13,1	1,3	-	< 0,1	39,6	22,6	2,1	20,3	0,8	1,3	-	8,2	2,1
Molybdenum	507.773	68,5	6,7	0,5	40,2	20,6	< 0,1	< 0,1	30,2	-	-	29,7	0,5	-	1,3	-
Niobium	31.377	17,8	0,1	-	2,7	15,0	-	-	82,2	-	-	82,2	-	-	< 0,1	-
Tantalum	39.376	99,0	2,7	0,6	91,7	-	-	-	0,2	-	-	-	0,2	-	0,8	-
Nickel	978.943	56,0	7,3	4,4	8,1	19,1	10,0	6,4	32,1	22,4	2,0	5,2	24,9	-	11,9	-
Vanadium	59.831	44,7	37,1	< 0,1	1,8	-	-	11,5	4,1	-	3,7	0,4	-	-	51,2	-
Tungsten	67.837	60,5	33,0	2,8	3,5	9,4	11,6	0,1	19,4	3,8	3,9	2,5	13,0	-	20,1	-
Mercury	9.004	70,0	8,8	52,2	4,7	1,3	-	< 0,1	5,2	0,6	2,7	2,4	0,1	-	24,6	0,2
Antimony	20.330	29,2	4,3	5,9	0,9	3,5	8,5	6,0	58,9	-	1,4	38,8	18,7	-	11,9	-
Titanium	199.252	86,9	20,0	2,5	10,7	10,8	18,9	3,4	3,5	0,2	0,2	-	3,3	-	9,6	-
Zirconium	31.224	97,9	1,2	< 0,1	22,4	0,6	57,8	15,9	0,7	-	-	-	0,7	-	1,4	-
Fluorine	49.716	53,8	14,1	22,4	0,3	-	-	17,0	24,0	8,5	15,4	3,2	-	5,4	19,6	2,6
Phosphates	878.207	22,7	2,2	0,1	19,3	0,1	-	1,0	68,4	14,5	59,6	0,3	8,4	0,1	7,4	1,5
TOTAL	14.538.576	48,4	13,0	4,4	9,2	8,9	6,7	5,5	45,9	20,4	20,4	18,2	7,1	0,2	5,5	0,2

Class I: developed countries.
Class II: developing countries.
Class III: state-trading countries.

Source: Nimexe.

Annex 4

WORLD MINERAL RESERVES

Commodity	World (tonnes)	Developed countries %	Developing countries %	Developing countries ACP, OD and OT	Eastern bloc %
Aluminium	23.400.000.000	23,1	73,5	50,7	3,4
Copper	555.000.000	28,9	58,1	14,7	13,0
Lead	165.200.000	65,9	16,8	2,6	17,3
Tin	9.570.000	6,1	67,6	2,3	26,3
Zinc	252.310.000	72,8	13,3	0,9	13,9
Iron	93.600.000.000	35,2	31,0	1,5	33,8
Manganese	1.835.000.000	52,5	9;3	5,5	38,2
Cobalt	3.665.000	10,2	62,5	32,8	27,3
Chromium	1.090.400.000	65,1	29,0	28,4	5,9
Molybdenum	9.480.000	51,4	38,5	0;3	10,1
Niobium	7.940.000	1,7	89,5	3,3	8,8
Tantalum	65.910	6,4	86,7	67,4	6,9
Nickel	82.030.000	21,1	48,9	20,5	30,0
Vanadium	15.935.000	51,6	2,0	-	46,4
Tungsten	2.976.000	33,9	9,4	0,4	56,7
Mercury	186.500	51,5	14,4	-	34,1
Antimony	4.320.000	20,25	22,00	-	57,75
Titanium	427.750.000	66,8	18,9	2,7	14,3
Zirconium	44.740.000	56,6	31,3	-	12,1
Fluorine (35% CaF_2)	300.000.000	57,7	32,6	4,8	9,7
Phosphates	70.920.000.000	17,2	69,4	1,0	13,4

Based on: Regional distribution of mining production and reserves of mineral commodities in the world. Bundesanstalt für Geowissenschaften und Rohstoffe, Hanover, January 1982.

Evaluation by Commission departments

MINERAL RESERVES IN DEVELOPING COUNTRIES

%

Commodity	Developing countries	Latin America	Asia	Africa	Other
Aluminium	73,5	25,2	9,9	35,6	1,7
Copper	58,1	37,3	9,2	11,6	-
Lead	16,8	7,9	1,0	4,9	3,0
Tin	67,6	14,6	47,7	5,3	-
Zinc	13,3	6,3	3,8	1,9	1,3
Iron	31,0	20,3	8,1	2,4	0,2
Manganese	9,3	2,3	1,4	5,6	-
Cobalt	62,5	1,2	38,7	22,6	-
Chromium	29,0	0,2	0,4	28,4	-
Molybdenum	38,5	34,0	4,4	-	0,1
Niobium	89,5	82,4	-	7,1	-
Tantalum	86,7	5,5	12,4	68,8	-
Nickel	48,9	6,1	40,1	1,7	1,0
Vanadium	2,0	1,4	0,6	-	-
Tungsten	9,4	3,7	5,1	0,6	-
Mercury	14,4	4,6	1,0	6,5	2,3
Antimony	22,0	15,0	4,9	-	2,1
Titanium	18,9	0,2	14,4	4,3	-
Zirconium	31,3	2,0	28,8	0,5	-
Fluorine (35% CaF_2)	32,6	17,4	6,0	9,2	-
Phosphates	69,4	2,1	3,8	63,5	-

Based on: Regional distribution of mining production and reserves of mineral commodities in the world. Bundesanstalt für Geowissenschaften und Rohstoffe, Hanover, January 1982.

Evaluation by Commission departments.

COMMUNITY IMPORTS FROM ACP STATES

	Including oil imports		Excluding oil imports	
	Average 77-78/79-80	1980	Average 77-78-79-80	1980
1. Oil	37,70 %	50,08 %	-	-
2. Uranium	1,81 %	2,23 %	2,91 %	4,47 %
3. Ores & derivatives	13,42 %	13,03 %	21,54 %	26,10 %
3.1 Copper	6,33 %	6,17 %	10,16 %	12,36 %
3.2 Iron	2,40 %	2,12 %	3,85 %	4,25 %
3.3 Aluminium	2,29 %	2,57 %	3,68 %	5,15 %
3.4 Diamonds	0,65 %	0,46 %	1,04 %	0,92 %
3.5 Phosphates	0,61 %	0,58 %	0,98 %	1,16 %
3.6 Tin	0,46 %	0,32 %	0,74 %	0,64 %
3.7 Manganese	0,31 %	0,26 %	0,50 %	0,52 %
3.8 Gold	0,16 %	0,31 %	0,26 %	0,62 %
3.9 Silver	0,05 %	0,08 %	0,08 %	0,16 %
3.10 Chromium	0,04 %	0,04 %	0,06 %	0,08 %
3.11 Zinc	0,04 %	0,02 %	0,06 %	0,04 %
3.12 Lead	0,03 %	0,02 %	0,05 %	0,04 %
3.13 Residues and other	0,05 %	0,08 %	0,08 %	0,16 %
4. Other commodities[1]	47,07 %	34,66 %	75,55 %	69,43 %
Total	100 %	100 %	100 %	100 %

[1] Mainly agricultural commodities and derivatives.

COMITÉ DE LIAISON
DES INDUSTRIES DE MÉTAUX NON FERREUX
DE LA COMMUNAUTÉ EUROPÉENNE

Capital expenditure on all projects excepting uranium

In 1981 US $ x 1000

Countries	1976	1977	1978	1979	1980	1981
Developed countries						
Africa	67.219	45.296	49.990	68.447	28.488	17.300
Australia	50.657	183.602	197.367	103.530	192.843	241.505
Europe	243.448	258.361	216.000	148.837	202.771	274.961
comprising :						
EEC					(182.776)	(261.752)
Spain & Portugal					(1.614)	(10.149)
North America	146.801	134.847	153.188	99.819	111.543	102.692
Oceania (Others)	-	4.412	-	-	-	-
Sub total	508.125	626.518	616.545	420.633	535.645	636.458
Less-developed countries						
Africa	31.772	2.628	3.443	-	14.887	23.192
Asia	3.528	13.437	45.958	7.201	481	751
Latin America	68.188	56.897	23.340	24.478	98.175	204.085
Oceania	27.648	31.303	22.544	18.826	7.531	21.900
Others	-	-	-	-	-	-
Sub total	131.136	104.265	95.285	50.505	121.074	249.928
T O T A L	639.261	730.783	711.830	471.138	656.719	886.386
Percentage distribution by country group						
Developed	79	86	87	89	82	72
Less developed	21	14	13	11	18	28
Total	100	100	100	100	100	100

COMITÉ DE LIAISON
DES INDUSTRIES DE MÉTAUX NON FERREUX
DE LA COMMUNAUTÉ EUROPÉENNE

Exploration expenditure on all projects excepting uranium

In 1981 US $ x 1000

Countries	1976	1977	1978	1979	1980	1981
Developed countries						
Africa	11.701	12.389	9.129	9.310	15.133	13.636
Australia	45.322	45.579	49.846	58.289	100.899	95.209
Europe	83.620	89.933	73.949	82.300	100.826	85.569
comprising :						
EEC					(85.773)	(73.438)
Spain & Portugal					(7.589)	(5.485)
North America	50.015	44.412	39.319	43.627	70.702	83.843
Oceania (Others)	-	-	-	-	436	277
Not sub-divised	21.861	26.201	5.510	5.726	-	-
Sub total	212.519	218.514	177.753	199.252	287.996	278.534
Less-developed countries						
Africa	327	754	6.370	8.140	9.511	6.778
Asia	5.809	8.652	11.353	15.702	8.880	7.797
Latin America	10.176	20.577	17.038	20.167	32.464	44.423
Oceania	601	2.000	1.012	623	581	1.255
Others	10.053	12.368	3.144	-	-	-
Sub total	26.966	44.350	38.917	44.632	51.436	60.253
T O T A L	239.485	262.864	216.670	243.884	339.432	338.787
Percentage distribution by country group						
Developed	89	83	82	82	85	82
Less developed	11	17	18	18	15	18
Total	100	100	100	100	100	100