EUROPEAN PARLIAMENT

DELEGATION FOR RELATIONS WITH

LATIN AMERICA

VIIth EUROPEAN COMMUNITY/LATIN AMERICA

INTERPARLIAMENTARY CONFERENCE

PRELIMINARY DRAFT PROGRAMME

Saturday 15 June	Arrival in Brasilia and registration of Members
Sunday 16 June, evening	Opening ceremony (official speeches)
Monday 17 June and Tuesday 18 June	VIIth Interparliamentary conference Subjects of the debates: - Democracy and human rights; - European integration policy and relations between Latin America and the European Community; the Contadora process and the follow-up to the ministerial meeting of San José de Costa Rica; - Foreign debt; - The protection of the environment. (The main subject of the environment might take up the whole afternoon of 18 June)
Tuesday 18 June, evening and Wednesday 19 June, morning	Meeting of the drafting committee of the Final Act
Thursday 20 June, morning	Vote on the Final Act
Friday 21 June and Saturday 22 June	Fact-finding visit to Amazonia on all the problems connected with environmental conservation (organized and paid for by the Brazilian authorities)
Sunday 23 June	Closing ceremony in Rio de Janeiro; reception given by the State Governor of Rio de Janeiro
Monday 24 June	Return to Europe

1 April 1985

PE 97.438

CTI02097

GS/RES/216/84

MOTION FOR A RESOLUTION

tabled by Mr MUNTINGH and Mrs VAN HEMELDONCK
on behalf of the Socialist Group

pursuant to Rule 47 of the Rules of Procedure

Subject: The Tucurui dam in Brazil

A. whereas the Brazilian authorities decided at the end of September 1984 to complete the Tucurui dam without warning several hundred farmers and Indian families,

B. whereas the clearance of some 250,000 hectares of forest for a reservoir behind the Tucurui dam was not properly completed and whereas, as a result of the bankruptcy of CAPEMI, at least 16 tonnes of highly-toxic sodium pentachlorophenol (PCP) was left behind on a worksite in the forest, stored temporarily in oil drums and containing 3,600 kilos of dioxin, which is theoretically enough to wipe out every living organism on earth,

C. whereas this is only one of many sites where toxic substances with extremely high dioxin contents have been stored; whereas, althouth more than 350 drums have been recovered, it is almost certain that considerable quantities of toxic substances have still not been located and will threaten the habitability of the delta downstream when the area is flooded with sea water,

D. whereas the imprudent use of toxic substances in this area to poison Brazil nut trees in order to drive the local Indian tribes from the area by depriving them of their livelihood has already led to many cases of spontaneous abortion and chronic poisoning in this region,

E. whereas studies by the World Bank in 1977 showed that, unless deforestation is carried out beforehand, rotting trees would cause serious acidification and atrophy of the water in the reservoir, leading to rusting of the hydroelectric turbines and creating a breeding ground for all types of pathogens,

F. whereas the electricity is to be sold to the local population at the full price, but to foreign firms such as Shell, Rio Tinto Zinc, Alcoa and various Japanese and Canadian companies at only a third of its market value,

G. alarmed that the Brazilian government is apparently unaware of the danger which is threatening Brazil's future or, in any case, has not heeded the warnings from Brazilian and foreign experts and is proceding to complete the dam without further deforestation and without disposing properly of all stocks of defoliants,

H. whereas, by acting in this manner, the Brazilian government is perpetrating ecocide on an unprecedented scale and neglecting the needs of the local population in a totally irresponsible way,

I. whereas the Brazilian government has already created or intends to create 40 more large reservoirs in the Amazon region, with the aim of transforming the Tocantins river into a 1,900 km long chain of gigantic lakes; whereas, in the light of the current unprecedented scandalous conduct, there is no guarantee whatsoever that this will be done responsibly,

J. whereas these projects will alter the hydrology of the entire Amazon basin and may have far reaching repercussions on the fertility and climate of the whole of Brazil,

K. whereas Brazil has failed to make a serious study of the ecological implications of creating 40 gigantic artificial lakes,

L. whereas one of the chief aims of hydroelectric projects is to attract foreign companies, including undertakings from Community countries,

M. whereas, in the light of such irresponsible behaviour, all financial or moral support for such projects in Amazonia and all related forms of practical involvement by the Community are thoroughly reprehensible,

1. Calls on the Commission to urge the Brazilian government to forestall or revoke the decision to complete the dam and subsequently to remove all drums containing herbicide from the area;

2. Calls on the Commission to put a stop, in any event, to all financial aid to projects in the Amazon region of Brazil and to request Brazil to review the reservoir programme and take the necessary steps to preserve the habitat of the Amazon region;

3. Calls on the Commission to put forward this proposal in all organizations in which it is represented and which have financial links with economic activities in the Amazon region.

EUROPEAN PARLIAMENT

COMMITTEE ON THE ENVIRONMENT, PUBLIC HEALTH AND CONSUMER PROTECTION

WORKING DOCUMENT

on

environmental issues in Latin America

Rapporteur : Mrs L. SEIBEL-EMMERLING

12 April 1985

WG(2)1826E
De.-sm.

PE 96.644/rev.

I. Parliamentary background of the report

1. At the first four meetings of the European Parliament and Latin American Parliament Delegations no environmental matters were discussed.

2. A reference to the environment was included for the first time, on a proposal from your rapporteur, in the Final Act of the Fifth Interparliamentary Conference in January 1981, and reads as follows:

   '60. (The Conference) stresses that the problem of the environment is a worldwide problem, aggravated by poverty in the countries of the Third World; therefore requests the Latin American and European Parliaments to cooperate in setting up a joint committee

   - to study these problems and introduce a consistent policy on the protection of the environment and the quality of life; and

   - to introduce an effective international law on natural resources.' (PE 70.678).

3. Considerable opposition still had to be overcome with regard to Latin American delegates who expressed the fear that the introduction of environmental issues was merely a new tactic on the European side to prevent their own essential industrialization and thereby get rid of undesirable competition.

4. At the Sixth Conference in Brussels, however, there were also proposals from the Latin American side to include environmental questions in the delegations' discussions. Particular reference was made to the impact of trade in chemicals which are banned in the Community.

It was decided (again on a proposal from your rapporteur) to include the following call for a joint conference on the environment in the Final Act :

'E. Protection of the environment

49. Conscious of the dangers that arise from the continuous destruction of natural resources and the deterioration of ecological conditions in general, both sides agree to attach greater importance to cooperation on environmental policy than they have in the past.

They both agree, as far as possible, to :

- improve the exchange of information
- increase cooperation on their research and development programmes
- take account of the ecological impact when formulating their industrial and agricultural policy and implement those solutions which represent the least threat to the environment. This will involve the adoption of procedures to save energy and raw materials and the reduction of damage to the environment caused by toxic substances.

50. It is agreed that a Latin American/European Conference on the Environment will be held in 1984 to encourage the exchange of information, define common objectives and consider possible areas for cooperation. The results would be submitted to the Seventh Interparliamentary Conference.' (PE 85.416/final).

5. The Commission promised its support and included the amount of 50,000 ECU under the heading 'Ecology in developing countries' in the draft budget for 1985.

6. The Commission also defined the subjects to be discussed by the conference, which was intended to be a precursor to the Seventh Interparliamentary Conference in Brazil. The subjects in question were to be Deforestation, Soil Erosion and Air Pollution. To the best of your rapporteur's knowledge preliminary discussions were held, but even now there is no official at the Commission with specific responsibility for environmental questions.

7. The European Parliament's Committee on the Environment discussed the planned conference several times and decided to take part. On 20 September 1984 the committee decided to draw up a report which would be one of the basic documents for the proposed conference. It appointed me rapporteur

with the task of preparing material on the abovementioned three subjects for the conference. The idea was to give the conference on the environment an insight into those areas which have already been investigated by the European Parliament within the Community and which have parallels in Latin America. The objective was a joint examination at the conference of the effect on the environment in Latin America of existing economic links between both Community and Latin American institutions and companies with headquarters in the Community and Latin America. The report was also to cover the motions for resolutions by Mr Muntingh and Mrs Van Hemeldonck, on behalf of the Socialist Group, on the Carajás project (PE 84.627) and on the Tucuruí Dam in Brazil (PE 94.228).

8. In February 1985 the European Parliament was informed that the planned conference would not take place for budget reasons. The environment would now be one of the topics for discussion at the Interparliamentary Conference and the European Parliament Delegation for relations with Latin America accordingly appointed a rapporteur. On 25 February 1985 the Environment Committee made the following decisions :

(a) since the planned 1985 conference on the environment would not take place a report by the committee could not be submitted in Brazil;

(b) the committee nevertheless considered the subject to be so important that it would continue with its own-initiative report, but would draft this only after the conference in Brazil;

(c) before the Seventh Latin American Conference only a working document would be prepared and discussed, to give Members the opportunity to incorporate questions they wished to be covered in the planned discussions and to enable the results to be used for the report;

(d) the committee agreed that Parliament should adopt a position on the Carajás and Tucuruí motions for resolutions before the conference in Brazil, but did not reach a decision on the form this would take (e.g. oral question, topical and urgent debate); however, the subject would still be covered in the report.

II. General introduction

1. Apart from the agreement as regards cooperation, the European Parliament's responsibility for environmental protection in Latin America arises from the ecological and social effects of projects which are being completed with Community support. This is the case, for example, with Community involvement in the development of an open-cast iron-ore mine in the Carajás region in Brazil as apart of the Grande Carajás project, and with the effects of the building of the Tucuruí reservoir, which is intended to provide energy for the Grande Carajás project.

2. Despite the very low standard of living of the vast majority of the population, the Latin American countries have reached a level of industrial development which is having worrying effects on the environment and shows parallels with the Community. It is not the density of industry which is comparable with the Community, but its impact. The industries that have settled in Latin America frequently use technology transferred from European companies which is either completely prohibited in Europe or which has become unprofitable because of environmental legislation.

3. Latin American politicians justifiably point out that in Europe environmental protection also continues to be of secondary importance to profit levels and that a change in attitude is making itself felt very slowly. Fears that the Community wishes to impose environmental considerations on Latin America in order to prevent industrialization and hence competition, and keep it in a dependent position, must be taken seriously. We certainly cannot use our own behaviour as a basis for setting ourselves up as experts on reconciling ecological and economic interests.

4. Your rapporteur regards it as important, however, to indicate our situation and its consequences, so that we may help to prevent or overcome comparable mistakes.

5. I therefore propose that the following reports should be made available in translation to the Latin American Parliament :

Weber	Assessment of environmental effects (Doc. 1-569/81)
Muntingh	Petrochemical pollution (Doc. 1-636/81)
Mertens	Community forestry policy (PE 78.966; for the Committee on Agriculture)
Squarcialupi	Air pollution (Doc. 1-635/79)

6. The aim of mutual understanding must be to make it clear that ecological changes and disasters are not limited to the areas in which they arise or become apparent, but threaten the entire ecological balance which is the basis of human, animal and plant life.

III. Format of the working document

1. Your rapporteur proposes to use the Carajás and Tucuruí projects to indicate the environmental problems and their connection with social problems, compare these with the available data for Latin America, where possible, and draw conclusions accordingly. Your rapporteur recommends a visit to the overall Carajás/Tucuruí project during the Seventh European Community/Latin America Interparliamentary Conference.

2. It should be pointed out first of all that the data on Latin America are considerably poorer and in some cases less reliable than for Africa. This is also reflected in the situation at the Commission, where there is effectively no official with responsibility for environmental questions in Latin America.

3. The situation as regards data has meant that section on air pollution in this document is limited to a hypothesis and its associated questions.

IV. Particular characteristics of the tropical rain forest

Its nature is such as to prevent all climatic extremes and ensure a temperature of less than 30°C with about 96% air humidity. Forest regeneration is mainly through the direct uptake of nutrients in the rain and air. Only a few additional nutrients reach the layer of humus formed by decomposing vegetable matter. This layer of humus thus remains extremely thin.

1. Experts regard the clearance of tropical rain forest to obtain land for cultivation as problematical in terms of its long-term use. Incorrect estimates of the productivity of the arable land thus obtained are based on a direct transfer of the rain forest's fertility to that of the cleared land (the 'green revolution' in Brazil). It has been established, in fact, that nutrients are immediately washed out of soil which is not covered with vegetation by the heavy rainfall. The use of artificial fertilizers does not change this situation: it entails the additional risks of eutrophy and possible poisoning of water and of increased nitrate levels in foodstuffs.

   The general consequences of deforestation are as follows :

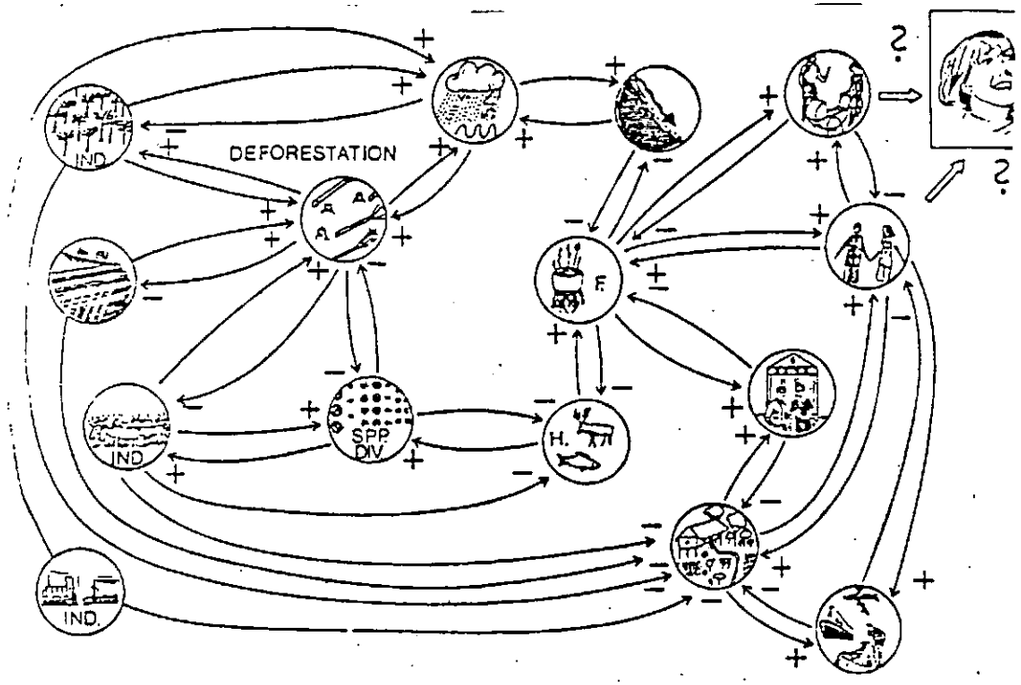
   - changes in climatic conditions
   - changes in the net output of CO_2
   - changes in the overall balance of humidity, leading to reduced humidity input in the forest and affecting the forest structure, a possible additional factor in deforestation
   - soil erosion.

2. In addition to these consequences, the economic repercussions of which can be forecast, and the increasing environmental impact on mankind, there are ecological consequences such as the loss of species (in some cases species which are as yet unknown), the effects of which are incalculable.

3. Estimated forest area and forest area changes in the tropics and for forests throughout the world.

Source : DIE UMSCHAU No. 3, 85th year

Type of forest	Area (million km²)				
			Optimistic		
Dense natural forest					
Equatorial/tropical, predominantly evergreen, perhumid/humid	5.5	5.0	4.4	4.0	3.0
Tropical, predominantly deciduous, subhumid	7.5	6.5	6.0	5.5	4.5
Open natural forest					
Tropical, deciduous and evergreen, semi-arid	7.5	6.5	6.0	5.5	4.5
Total tropical natural forest					
Optimistic	20.5	18.0	16.4	15.0	12.0
Pessimistic	20.5	17.0	15.0	12.5	8.0
No. of trees planted					
Forestry	0.04.	0.05	0.08	0.16	?
Agriculture	0.20	0.25	0.27	0.28	?
Total world forest					
Optimistic	38.2	36.0	34.5	33.7	30.5
Pessimistic	38.2	35.5	33.0	29.0	21.0
World population ('000 million)					
Optimistic	-	4.0	5.0	5.8	?
Pessimistic	-	4.2	5.3	6.6	11.0



4. Network of feed-back loops between sectors which are affected by activities which finally result in deforestation. Deforestation releases land for agricltural and forestry industrial plantations and industrial meat growing, but also increases variations and extremes of climate and soil deterioration while fuelwood availability declines. More produce is supplied to the timber industry and export market at short term until resource exhaustion and productivity declines take effect. The natural species diversity and supplies of customary home-grown foods (H = game, fish) dwindle and feeding habits change (F.). These changes and employment in industry, together with effects of tourism and information

media change customary ways of life, increase dependence on credit systems, affect social habits and demographic dynamics and finally the happiness of people.

+ changes in quality, quantity or activity in one sector affects the other sector in the same direction
- changes in one sector induce changes into the opposite direction in the other sector.

Closed loops with positive signs dominating tend to build up through positive feedback, those with more negative than positive signs are balanced through self-regulation.[1]

V. Deforestation

Development of forest resources

(a) Clearance for cultivation, world wide

1860 - 1920 : 4.4 million km^2
1921 - 1978 : 4.7 million km^2 [2]

Since 1978 there has been a further increase in clearance rates, particularly in the tropics, for which the figures vary. Clearance for cultivation accounts for about 70% of the loss of forests worldwide[3].

[1] Use and Misuse of Tropical Rainforests, Hamburg 1985, manuscript
[2] Die Umschau, No. 3, 85th year, p. 153,
[3] Franz Hubert: Strained resources and agarian structures in Latin America, background paper to a talk at the Friedrich Ebert Foundation's Conference on Environmental Policy in Latin America as a development policy challenge, 28.2.1985 to 1.3.1985, p. 4

(b) Clearance of pastureland

Central America : The shift from forests to pasture[1].

Country	Area (km^2)	Pasture (km^2)		Forests and woodlands(km^2)	
		1961	1978	1961	1978
Costa Rica	50 700	9 690	17 640	28 480	19 300
El Salvador	21 390	6 060	6 900	2 300	0
Guatemala	108 890	10 390	19 760	84 000	44 000
Honduras	112 090	20 065	23 700	71 000	39 000
Nicaragua	130 000	17 100	28 200	64 320	44 000
Panama	75 650	8 990	14 300	41 000	32 000
Total	498 720	72 295	110 500(+ 65%)	291 100	178 300 (- 39%)
United States (for comparison)	9 363 120	2 612 350	2 150 000	3 076 000	3 044 000

1 The Hamburger Connection, How Central America's Forests Become North America's Hamburgers, Norman Myers in AMBIO Vol 10 No. 1. p. 5

Clearance of pasture land accounts for about 10% of the loss of forests worldwide[1].

(c) Tree-felling by the local population which is not accompanied by appropriate reafforestation measures accounts for about 20% of tropical forest losses worldwide[2].

(d) Clearance for industrial projects
There are no worldwide figures for this. The flooding of the Tucurui reservoir in Brazil alone entails the destruction of about 2,200 km^2 of forest; the major industrial project in the Carajás region will affect about 1 million km^2 with large forest areas.

Even without the large Carajás scheme, GLOBAL 2000 estimated that the Amazon forest would be reduced by half by the year 2000; a dramatic increase in this rate must now be expected.

(e) In addition to the above, there is clearance for commercial timber, charcoal, cellulose etc. and for shifting cultivation, for which no figures are available.

Questions :

- What involvement by the industrialized countries would be needed to prevent this disastrous destruction of tropical rain forests? Can international codes of practice in this respect be established which would strike a balance so that the burden would not fall on Latin America and its economic and industrial development?

- Are there registers which give information about the scale of deforestation in Latin America?

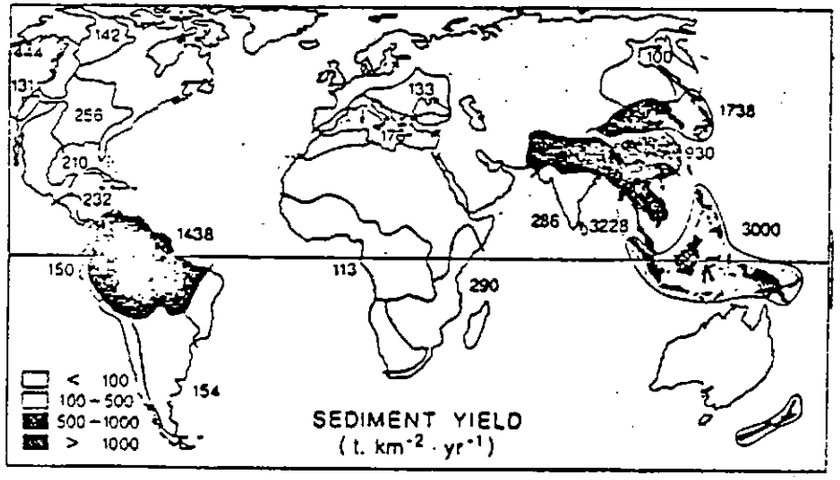
1 Franz Hubert, p. 4

2 Ibid, p. 3

VI. Soil erosion/use of chemical fertilizers

(a) The destruction or thinning of vegetation directly fosters the process of erosion. The earth's ability to store water and nutrients is reduced or lost and soil may be eroded, particularly on sloping terrain or where there is heavy rainfall. The effects of this process are not restricted to the actual site of the erosion; other consequences are the silting-up of river beds, irrigation systems and reservoirs, irregular water flows and an increased risk of flooding. Finally, sedimentation affects the state of the oceans and hence world climatic conditions.

(b) The table below shows erosion rates in tonnes per km^2 and year for the various river drainage areas. The extremely high rates for South East Asia and the Amazon region show the vulnerability and sensitivity of their ecosystems and indicate the dangers involved in continued deforestation[1].



1 Deforestation and forest conservation in the tropics, Federal Forestry Research Institute, 6th Hamburg Forestry Conference 1984, supplementary information, p. 14.

There are no precise details about the extent of the erosion problems. Estimates are as follows :

42% of the area of Mexico,
77% of El Salvador is suffering from increasingly rapid erosion,
30% of the Savannah in Colombia shows serious erosion damage,
75% of the land between Loja and Cuenca in Ecuador has been abandoned because of erosion damage,
83% of the Andes in Peru are loosing more than 10 tonnes of soil/hectare per annum[1].

The figures for the area of forest in Costa Rica are as follows:

1939 72%
1973 49%
1978 34%
2000 0%[2]

(c) There has been forest clearance in Costa Rica since the 19th century, initially for coffee and later for bananas, both products being intended for export. There is now extensive cattle rearing: 60,000 hectares of forest are cleared every year for pastureland which is of only average quality and deteriorates rapidly. Two-thirds of the meat thus produced is exported. It has been estimated that 150 million tonnes of topsoil are lost every year for the 67 kgs of meat which is Costa Rica's annual output. This means that 2.5 tonnes of soil are lost for every kilogram of meat, which is an ecological disaster[3].

(d) Longer-term agricultural use of cleared areas with the aim of maximizing their use generally leads to heavy use of chemical substances. In order to check premature soil impoverishment through erosion after the plant cover has been destroyed, large quantities of fertilizer are used with the consequences mentioned above.

1 Franz Hubert, p. 3
2 Deforestation and Development, July 1982, p. 9
3 Ibid

(e) Experts believe that Latin America could face more serious problems as a result of the use of pesticides where the quantities used and their associated side-effects have hardly been documented. The figure of 160,000 tonnes has been mentioned as the amount of pesticides used in Brazil in 1981[1].

(f) The heavy use of pesticides is required primarily because of the susceptibility of large-scale monocultures and of unsuitable high-yield plant varieties.

(g) Persistent pesticides are used (because they are cheaper); these substances have been banned in some industrialized countries because of their long biological half-life and high human toxicity (eg. DDT, aldrin, endrin and propoxur)[2]. The use of DDT, for example, has been prohibited in the United States since 1971; 100% of production is exported, eg. to Mexico.

Cases of incorrect handling have been reported, such as aircraft spraying settlements.

(h) Your rapporteur is convinced that the rapid increase in population in Latin America makes it absolutely essential for food production in the region to be expanded. Owing to the high level of indebtedness, however, there is increasing pressure for monocultural land use for export-oriented crops which in some cases are unsuitable for the soil structure. These crops not only do not provide the population with food but also prevent the use of additional land needed for its cultivation.

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[1] German Conservation Group, Bonn, documentation on environmentally balanced development policy, articles on conservation and environmental protection No. 9. 1983

[2] Franz Hubert, p. 8

(i) Questions:

- How can the imbalance between areas under cultivation to supply local food requirements and those for export be changed, and what assistance could the Community give?

- How much land in the Latin American countries is used to grow feedstuffs for export to the Community, in support of agricultural over-production here?

- Are there plans for projects such as that in the Bolivian altiplano and are there checks on its effectiveness? How is its effectiveness seen locally? (Altiplano: the population concerned is among the poorest in the world with individual incomes of less than US $100. Location: more than 4,000 metres above sea level. Aim of the project: to increase food production and at the same time protect the environment; reclamation of land for agriculture through the renewal or construction of terraces, improvement of natural pastureland, development of irrigation systems, protection of river banks).

- What opportunities for cooperation between Latin America and the Community are advocated and how can greater importance be attached to the associated environmental aspects?

- Is the import of chemicals banned in the Community restricted or prohibited in Latin American countries and if so, where? Who is responsible for authorizing imports?

- What measures have been taken as a result of Mrs Squarcialupi's report on pesticides which arose from a Socialist Group initiative?

VII Air pollution

Regular monitoring of air pollution is only a recent phenomenon in Europe and as yet is by no means comprehensive. Although there are no precise figures, experts have estimated that because the same technology is used, the scale of air pollution in industrial conurbations in Latin America is now similar to that in European conurbations and equally worrying.

Questions:

- Are there monitoring stations and have assessment criteria been developed for air pollution? Are there regulations for industrial polluters?

- Is it known to what extent those motor vehicles which have been exported to Latin America because they no longer meet environmental criteria in their countries of origin contribute to air pollution? Are corresponding figures available for exported industrial plants?

- It is known that the tropical rain forest matures very quickly because of the climatic conditions, and as a functioning complex ecosystem therefore reacts more quickly to changes in the environment (in this case air pollution). Are such findings in Latin America also used as indicators for environmental processes in Europe?

VIII Technology transfer

Questions:

- In the OECD countries, environmental regulations are alleged to account for about 5% of the costs relating to industrial plants. Are there studies which show what this percentage is for Latin America, where it appears to your rapporteur to be substantially smaller?

- Are there signs of certain types of production shifting from Europe to Latin America because of lower environmental protection costs?

- What codes of practice need to be established to prevent the transfer to Latin America of technologies which have already been banned here because of their harmful impact on the environment?

- What rules need to be established to force companies involved in technology transfer to disclose any dangers inherent in such technology? What are the effects of inadequate know-how in relation to the signing of turnkey contracts?

- What importance is attached to the environment in the cost/benefit analyses carried out by the Community and the Member States when making grants or credit available to Latin American countries?

- What part is played by production and processing methods which have been developed from traditional and regional methods such as those of the Incas and Mayas? Are such specifically Latin American methods less harmful to the environment?

IX Environmental impact assessment

With any projects and activities that encroach on the balance of nature, environmental protection is only possible if the effects on the environment are thought out in advance. The instrument of environmental impact assessment, which has long been approved by the European Parliament, is unfortunately still a requirement for the future here but is also essential for Latin America.

Questions:

- Are there already laws in Latin American countries on environmental impact assessment and if so, what laws? How effective are they deemed to be?

- What penalties can be imposed on those whose activities harm the environment?

- How actively do the [illegible] countries show their concern for environmental protection [illegible] ministries, commissioners for the environment and the like?

- How is cooperation organized with non-governmental environmental protection organizations?

- Have Latin American governments or non-governmental nature conservation organizations expressed a wish to exchange test figures and technical know-how for establishing environmental impact? Who would be the most appropriate contacts?

- What measures are needed to make the public more aware of what constitute environmental offences? To what extent are the media prepared to be involved in this?

- Have environmental disasters such as Bhopal, in which the factors involved are certainly comparable with European or American industrial plants, started to increase such awareness?

X The Tucurui and Carajás projects

1) Carajás

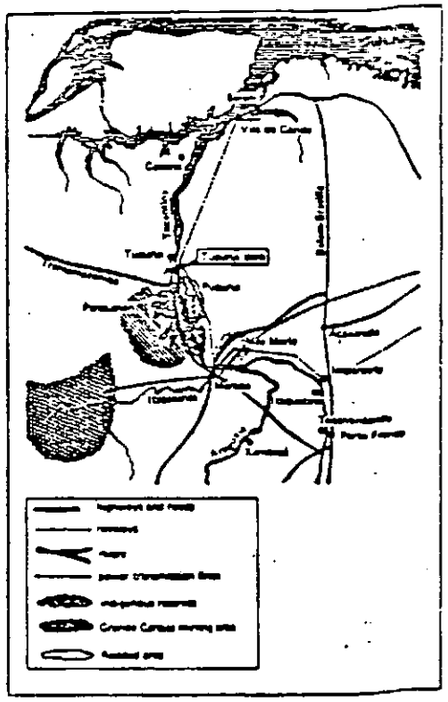
The Carajás project covers an area of 1 million km^2, more than the Federal Republic of Germany, the German Democratic Repuolic, Belgium and France combined. The aim of the project is to create an effective infrastructure to exploit deposits of iron, copper, gold, aluminium, magnesium, nickel and tin. The scheme involves building 890 km of railway line, which will cross the territory of nine Indian tribes, and harbour facilities for ships of up to 60,000 gross registered tonnes. Electricity will be supplied by the Tucurui reservoir[1].

[1] Michael Ehrke et al., Latin America, analyses and reports 7, Hamburg 1983, p. 81

In 1982 the Community agreed to provide US $10 million for the open-cast iron-ore mining part of the Grande Carajás scheme. Community finance only accounts for 1% of the total cost, but carries great political weight. Mining is scheduled to start in the summer of 1985.

The Carajás iron-ore project is planned to be the largest open-cast operation in the world.

Infrastructure and human intervention in the area covered by the Tucurui/Carajás scheme[1]



[1] Elisabeth Monosowski, Tucurui dam in the Amazon: Development at Environmental Cost? International Institute for Environment and Society, Berlin 1984, p. 5

Consequences:

- this huge scheme effects 42 Indian villages and ten different tribes, which are being confronted with the unfamiliar phenomenon of industrialization. US $13.6 million are to be spent on the creation of 'integration structures'. This expenditure is expected to tail off after the 5-year period of the agreement; the Indians 'will then have reached a level of acculturation such that they can be assimilated as workers on the project'[1];

- increased population density; an as yet unevaluated but foreseeable population explosion. Experience with the Tucurui project has shown that nine out of ten incomers were not absorbed in the project's labour force[2];

- expulsion of small landowners to make room for industry and increased commercial cultivation;

- overall, new land planning and intensive land use;

- general change in environmental conditions through deforestation, the destruction of intact ecosystems and erosion caused by road-building, railways and so on.

2. Tucurui

The Tucurui reservoir will be the largest artificial lake ever built in a rain forest area.

Consequences:

- at least 15,000 people (estimates range up to 30,000) will have to be resettled;

[1] Michael Ehrke, p. 82

[2] BRAZIL, Grande Carajás, a national scheme for exports, material prepared and published by the France/Brazil Committee, 1/83

- 17 small towns and villages will be flooded;

- six Indian tribes with at least 800 members will be affected;

- about 2,200 km^2 of tropical rain forest will be flooded;

- rare, and in some cases as yet unknown species of fauna and flora will disappear[1].

The following consequences of flooding the forest are already known:

- if there is no prior large-scale clearance of existing vegetation, a serious deterioration in the quality of the water can be expected as a result of the decomposition of those organic substances (deoxygenation - effect on fauna);

- swampy areas will form around the edges, thus considerably increasing the breeding grounds for malarial mosquitoes (malaria is endemic in this part of Brazil);

- snails will colonize stagnant areas of the lake, where the slow decomposition of the grass provides good living conditions, and transmit the dreaded bilharzia in the water (bilharzia is also endemic in this part of Brazil);

- it cannot be ruled out that the population may be endangered by toxins in the reservoir. There was at least a plan to defoliate the forest before flooding, partly with substances containing dioxin. It is assumed, however, that this was not carried out to any great extent. The possibility that substantial quantities of dioxin are being stored in the area to be flooded has so far not been disproved.

[1] Elisabeth Monosowski, Tucurui etc., page 6 et seq.

Experience of ecological consequences was obtained in Surinam, where 1,500 km^2 of tropical forest were flooded in 1964. The wood rotting in Lake Brokopondo increased the acidity of the water to such an extent that it ruined the turbines, aquatic plants proliferated and malaria and bilharzia increased. The government had to spend US $2.5 million on clearing the lake of aquatic plants. This was carried out using an acid which is one of the main constituents of Agent Orange; the Surinam river, from which the inhabitants obtained water and in which they fished, was ruined by contamination[1].

In the medium term, a reduction in the energy output of the Tucurui reservoir can be expected. The third largest source of the reservoir's water, the Itacaiúnas river, flows through the Carajás mining area. As this area is hilly and has heavy rainfall, large quantities of sediment are washed into the river, so that over a period of time it might fill up the reservoir. This would jeopardize the entire investment in the project. This is what happened with the Anchicaya reservoir in Colombia (Amazonia); it silted up 12 years after being brought into use. This was caused by intensive land use following forest clearance in the reservoir's catchment area, together with continuous erosion.

XI. CONCLUSIONS

1. There is no doubt that preserving and restoring the environment in Latin America is also extremely important for Europe. It cannot be achieved without the involvement of the people of Latin America.

2. However, an awareness of the need to protect the environment and implement a development policy which takes account of environmental factors presupposes that the population's basic needs are met to a minimum extent. Underdevelopment and damage to the environment are linked, because a short-sighted development policy, involving ruthless exploitation of all resources, will prolong the development gap. For this reason, environment policy also cannot be considered in isolation from general development and social policy. The ideology of purely quantitative growth puts both Europe and Latin America at risk.

3. The extremely complex environmental balance in Amazonia, for example, cries out to be preserved. It can be irrevocably destroyed by the application of technology designed for other ecosystems, in which it has been used with far fewer damaging consequences.

4. We cannot absolve ourselves of this responsibility. Latin America needs our help, which certainly includes industrial aid. We must ensure, however, that this aid does not primarily serve the interests of European investors, but brings about a transfer of technology that will avoid damaging the environment, rather than contributing to a process of destruction and restoration by tapping funds that are inimical to the poor.

5. At all events it is necessary to hold a conference to discuss common and diverging problems. Since the conference originally planned for 1984 was postponed because of the campaign for the European elections, and was then not held in the run-up to the Seventh Interparliamentary Conference for budget reasons, your rapporteur strongly recommends that every effort should be made to ensure that this conference on the environment takes place in 1986.

[1] Mireaux article, p. 11