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Operational Sectors - S - Environment and Health - Volume 2

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This file is closed as of JUNE 31, 1978.

For further correspondence, please see VOL III.

RECORDS MANAGEMENT SECTION

Dr. James A. Lee, OEHA

June 29, 1978

Dr. A. Fonaroff, Office of Environmental and
Health Affairs

Comments on "Environmental Changes and Biological Response:
Meeting Basic Health Needs in the Developing Countries"

I find this a very stimulating and well-put-together piece.
Thanks for the opportunity to comment; I hope my remarks will be useful.

1. In your discussion on "An Ecological Perspective of Man" (pp.3-4) you make a very interesting case on the limitations of man's past-oriented internal environment, highlighting the genetic component as the dominant force as it encounters rapid socio-environmental change. However, man's past-orientation is not restricted to the internal environment but extends to the external as well, and here there is an interesting paradox that you might care to mention: Man's past-oriented internal and external environments are influenced by memory (i.e., the socio-cultural storage of customs and habit repertoires from which society and the individual select their strategies for adapting to the external world). This "socio-cultural storage" both limits potential for change by its tendency to value and hold onto traditional shared beliefs, attitudes and practices for adaptation; and, on the other hand, provides a baseline from which individual and social change can occur.
2. Re man's ecological dominance (p.4), I would suggest there is a wide range of heterogeneity. Your presentation is highly accurate for technologically oriented, advanced societies. However, even within these parts of the world, as well as in much of the Third World, man places himself either in harmony or under control of nature, or environment. Our tendency to extend the concept of ecological dominance cross-culturally often neglects differences in world views about man-land relationships. Societies, for example, which are past-oriented will seldom place themselves in a dominant, omnipotent or antagonistic relation to the physical environment.
3. As we briefly discussed, I have problems with several points raised in your discussion on "Design and Delivery of Health Services" (pp.12-14). There seems to be a contradiction in the major thrust of your argument on prevention and control. At the start of paragraph 1, page 12, you note that "... preventive technologies have frequently been overstated," being based on environmental changes in the advanced countries that are largely inapplicable to the complexities of the developing world. You end the paragraph and illustrate in the next, however, that "... technical (as opposed to behavioral) solutions pose much smaller risks of failure."

There are two points here that I find troublesome. One has to do with the sticky issue of what "prevention" is (which is fully beyond the scope of the paper). Control of any form (e.g., you mention "modern medical miracles"), to my mind is preventive action. I gather you are attempting to emphasize the differences in control by directly modifying

the host (e.g., vis-a-vis immunization) rather than the environment (e.g., vis-a-vis the advanced countries' experiential model). The second point has to do with your statement that technological solutions pose smaller failure risks than do behavioral. As you know, failure rates appear to be lowest when technological and behavioral changes are treated simultaneously (e.g., coupling building privies with education and follow-through to assure that people know how to use them and are using them effectively). Potentials for success, I would argue, increase with combined environmental and behavioral change. Your examples on page 13 illustrate this very point.

I think we both agreed in talking that my comments above derive from the way in which you have had to compress some mighty complex issues. There are three points to highlight that might aid the listening audience:

- (a) In the developing world, the reservoir of infection is so high that one confronts an already sick or debilitated population, as much in need of remedial or curative care to the host as to the environment;
- (b) therefore, the aid of "modern medical miracles" is a necessity to begin stabilizing the population-at-risk from further disability and death; and
- (c) by increasing levels of health within this population, quickly and visibly through technology, the population may be more quickly sensitized to consider altering behavioral and environmental practices that may be resistant to change because of long-standing cultural beliefs and practices.

4. The priorities you identify for primary health care are excellent. However, there is a tendency to oversimplify the ease of potential success in performing some of the activities you note. For example, distributing nutritional information, as you note on p. 14, presents few problems, but use of such information for effecting dietary change is a more complex matter. Your last paragraph on page 14 illustrates this very point. Again, this may be a function of compressing information for a limited time presentation. You might want, however, to insert a sentence acknowledging the different task requirements in providing information and in aiding a population group in utilizing information.

AF/va



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June 29, 1978

Dr. James A. Lee, Director
Office of Environmental &
Health Affairs
International Bank for
Reconstruction & Development
1818 "H" Street, NW
Washington, DC 20433

Dear Dr. Lee:

I understand from Whit Bassow that he extended an informal invitation to you to join the Advisory Committee of the Center. I now want to make that a formal invitation. It would indeed be an honor if you would join with our friends and colleagues in helping guide the development and outreach of the Center in its mission to increase public understanding of international environmental issues in the United States and Canada.

Since you are already familiar with the Center's programs, I don't feel it necessary to go into any detail. But I am certain that your presence on the Committee would strengthen the Center's programs and underline your company's commitment to the concept of international cooperation to deal with global environmental problems.

I look forward to your favorable response.

Sincerely,

George P. Lutjen

GPL:elk

cc: W. Bassow

7/10/78
Called Bassow's off.
Bassow's sec. will have a message. JAL expected back August after which...

(130-997-6646)

ack. Aug. 14/78

Handwritten notes in blue ink, including "3/10/78", "Called", and "Bureau".

Faint, mostly illegible typed text in the upper right section of the document.

Two paragraphs of faint, mostly illegible typed text in the middle section of the document.

Faint, mostly illegible typed text in the lower middle section of the document.

RECEIVED
1978 JUL -7 AM 10:53
INCOMING MAIL UNIT

f338

June 29, 1978

Mr. Richard B. Ford
Assoc. Prof. of History
Clark University
Worcester, Massachusetts 01610

Dear Dick:

Thank you for your kind letter of June 23, 1978.

I am very glad to hear of your successful mission to Botswana and your participation in the Drought Symposium. I can only hope it was as rewarding an experience to you as Clark/AID's Environmental Workshop was to me. I addressed a letter to Len Berry on June 12, conveying to you and Harry Schwarz as well, my thanks and appreciation for such an interesting and enjoyable opportunity. I remain quite enthusiastic about the future prospects of your future workshops.

In fact, given some recent impetus in the Bank's environmental education and training activities, I would like to propose that we remain loosely associated for future similar workshops in a manner that would allow us to suggest names of possible participants from the Bank (one or two per session), much in the same vein and spirit of my own recent participation. I think that this could be an advantageous interim arrangement while we try to set up our own in-house environmental training policies and program. I would appreciate your reaction to this. Likewise, please inform me if there would be a need for some form of financial/logistical support from the Bank in this context.

Insofar as your request for copies of the Bank's Forestry Sector Policy Paper, I am immediately sending you, under separate cover, 25 copies of it, as you requested. Do not hesitate to call me directly, (202) 477-6940, or write should you need additional copies of this or some other Bank publication. I believe that yours is a cause worthy of all the support we can provide!

While, unfortunately, I missed the barbecue invitation at your house on that occasion... somehow I feel there might be other such wonderful occasions! Please say hello to Mrs. Ford, and my best regards to you.

Cordially,



Hernan Reitze
Office of Environmental and
Health Affairs

June 29, 1978

Mr. O. M. Ashford
4 Treble House
Blewbury, Didcot
Oxon, OX 119NZ
England
U. K.

Dear Oliver:

Thank you for your ~~kind~~ personal letter to me, and the one to Mr. Mahmud Burney of June 14, 1978 enclosing your rough draft report to the Environmental Coordination Board (ECB) of the United Nations Environment Programme (UNEP) entitled "Systematic Examination of ECB Members' Activities Progress Report" as submitted to UNEP's meeting of Focal Points on May 26, 1978 in Nairobi.

It was a pleasure meeting with you here and having the opportunity to discuss some of the topics covered by this study. I am glad you feel we were of assistance to you in providing the information you required. The document has been reviewed by this Office and there are some comments which we would like to offer you.

On page 35, paragraph 5, it reads: "While all.....operational staff. In the ideal situation, however, there should be no need for an OEHA as the environmental aspects of each project would automatically be taken care of by the staff directly responsible for preparing, appraising, reviewing, executing and monitoring the project." Contrary to some of the implications contained in this statement, we believe that the so-called "ideal situation" you allude should rather reinforce the trend of our current approach in two important ways: firstly, by strengthening and upgrading the level of environmental awareness and capabilities within the operational units of the Bank; secondly, by strengthening the staff of the OEHA--as you rightly suggest later on in that same paragraph--in order to upgrade and refine the central function performed by this core of experts. In a large organization such as the World Bank there appears to be no acceptable substitute to having this "critical mass" of environmental expertise to complement and coordinate the Bank's environmental policy. We see both the "central" and "regional" elements of our economic development activities as intimately linked and inter-dependent. Within this context, we believe that smooth handling of environmental affairs by the Bank requires a careful and balanced approach to economic development.

OFFICIAL FILE COPY

Mr. O. M. Ashford

- 2 -

June 29, 1978

When you visited us last April 27, I mentioned to you that this Office has produced an environmental manual for the industrial sector which will be published by the Bank shortly. In the meantime, however, I am enclosing a copy of this document in its present form for your reference (i.e., page 46, paragraph 5) in completing your first draft.

The OEHA has no further comments to furnish at this time.

On a personal note, nevertheless, let me add that I think you are handling very well this difficult and sensitive subject matter. You are managing to describe Bank policies and procedures in a fairly accurate way. You are making a conscientious effort to avoid unnecessary duplication with other somewhat overlapping studies, such as the IIED's "Banking on the Bio-Spheres"; and, except for the point mentioned above I think your suggestions appear to be quite acceptable.


Please let me know if we can be of any further assistance to you at this stage.

With my best personal regards.

Cordially,

Hernan Reitze
Office of Environmental and
Health Affairs

cc: Dr. J.A. Lee-OEHA (J.Tixhon, R.Overby, R.Goodland, B.Luke)
Mr. M. Burney-IRD

 HR:amm

OFFICIAL FILE COPY

June 29, 1978

Dr. I. Paenson
45, Route de Colovrex
1218 Grand-Saconnex (G.E.)
Switzerland

Dear Dr. Paenson:

Thank you for your letter of June 3, 1978, with a photocopy of Mr. B. Orejas, OAS, letter to you of May 12, 1978.


I regret to reiterate that the Bank's position with regard to the funding of your proposed research project remains unchanged. Likewise, I also lament the negative outcome of your recent approach to the OAS on this matter.

You may rest assured, however, that if this situation were to be substantially changed in the near future, I would seek to contact you.

With best regards.

Sincerely,

Hernan Reitze
Office of Environmental and
Health Affairs

 HR:amm

Addressees Listed Below

June 27, 1978

Hernan Reitze, Office of Environmental and Health Affairs

Environmental Education and Training (EET) - Discussion Meeting

1. A meeting was held on June 21 between 3:45 and 5:45 P.M. in Conference Room E1026, at the invitation of the OEHA, to discuss with other departments in the Bank the subject of environmental education and training. These notes are intended as an "aide memoire" about some of the most salient issues, approaches and suggestions presented at this meeting according to my personal perception and recollections.

2. The meeting was chaired by Dr. James A. Lee, OEHA, who indicated appreciation for the response to this invitation. He proposed to concentrate the ensuing discussion to the following areas of interest:

- a. EET needs in LDC's (EDI courses)
- b. Bank projects/components (all projects, including EDC's)
- c. Bank-staff training programs (PER)
- d. Research on environmental economics and development (PPR, DRC).

3. It was clear that while the OEHA acts as the Bank's focal point in environmental affairs within the Bank, the implementation of the Bank's role on EET must be carried out on a Bank-wide basis. Thus the significance of the interest manifested by the various departments represented at this meeting.

4. There seemed to be a unanimously shared understanding that the environmental dimension of the Bank's economic development work could not be treated as an individual area of expertise only, and thus just adding-on to projects, programs, course curricula, etc., but rather as an integral dimension of all Bank's economic development activities.

5. Mr. R. Frost, EDI, pointed out that the Institute stood at the threshold of a new fiscal year budget as well as a five-year program, therefore, he considered this discussion very timely. He said he is in the process of evaluating whether to enlarge the EDI's number of courses being offered by adding one that would deal with environment and development individually, or to educate EDI educators on how to integrate environmental considerations within their own course curricula. The discussion that followed seemed to suggest that both approaches would be complementary to each other and, therefore, a more desirable twofold approach.

6. Mr. R. Goodland, OEHA, saw three potential target groups to be influenced through EDI courses on environmental management and training:

- (1) Planners and policy makers
- (2) Upper level professionals/technicians
- (3) Universities.

He further suggested that the first of these three groups would perhaps be an ideal target for such EDI courses because they would normally come from interdisciplinary backgrounds and, therefore, would pose no conflict with the sectoral approach of the courses offered.

OFFICIAL FILE COPY

7. Mr. A. Habte, EDC, expressed interest in devising an appropriate strategy in order to deal with the issue of EET. He suggested that an "issues memo" could be written for discussion at a CPS staff meeting and/or EDC staff meeting and/or for an eventual discussion with Mr. McNamara. The upshot of such an exercise would be to arrive at an acceptable common understanding and definition of EET, to be widely shared with the Bank's staff in a workshop/seminar type of forum which could be organized to this effect.
8. Mr. W. Haddad, EDC, pointed out that the likely impact of any Bank EET program would be miniscule: comprising only "a small portion of a small portion" of educational programs in LDC's. He agreed in favor of a more comprehensive educational approach to EET and believed that Education Projects, while limited in their absorptive capacity to include all desirable educational aspects would, nevertheless, be a valuable, viable and legitimate way to proceed. He also said that we should avoid duplication of any of the material and experience already being accumulated in this field by UNESCO and UNEP.
9. Mr. J. Simmons, PPR, suggested that whatever approach is finally adopted, it should be comprehensive and systematic, rather than individual and sporadic. He also recommended the early systematic discussion of the environmental implications of projects of any kind.
10. Mr. J. Tixhon, OEHA, argued in favor of the broader and regular incorporation of training components in all Bank projects, particularly of industrial projects. This, he said, has wide implications for the "external environment" as well as the "internal environment" (occupational safety and health). He also brought up the issue of guidance and training of DFC officials from LDC's. It appears that almost nothing is being done at the present time in this regard.
11. Mr. B. King, DED, strongly endorsed considering environmental aspects as an integral dimension of our economic development activities. He cautioned against the "ad hoc" annexing of EET components to projects because they would merely reinforce the "externality" approach to environment. As it refers to research in the area of cost/benefit analysis, and of a more appropriate economic quantification of environmental factors in economic development projects, he believed that the CPS/PAS "front office" (Messrs. H. G. van der Tak and A. Ray) was engaging in some research along these lines. The broader issue of in-house research on environment and development problems, however, remained fairly undefined.

June 27, 1978

12. Personally, I expressed interest in reaching an assessment of international EET programs, such as those espoused by UNESCO and UNEP at Tblisi, in order to determine their potential, for World Bank programatic and/or project activities. Also, I raised the question of the appropriateness and feasibility of intensifying the EDI's search for DFC officials for future EET course work.

13. In summing up some of the thoughts expressed during this meeting, Dr. Lee said that perhaps on some future occasion we would also benefit from the views and advice from the DRC, (as it refers to in-house research on environmental economics), and the PER, as it affects on-the-job training for World Bank staff.

cc: Dr. J.A. Lee-OEHA

cc: Messrs. H.G. van der Tak-PAS

A. Ray-PAS

R. Overby-OEHA

J. Tikhon-OEHA

R. Goodland-OEHA

A. Habte-EDC

M. Hultin-EDC

R. Frost-EDI

V. Srinivasan-EDI

S.J. Burki-PPR

J. Simmons-PPR

B. King-DED

R. Norton-DRC

E. Eriksen-PER

M. Burney-IRD

HR:amm



The 6th Technicon International Symposium on
Environmental Changes and Biological Response

Sextum Technicon Inter Gentes Symposium de
Ambientalis Mutationibus et Biologicis Responsis

July 7-9, 1978, International Convention Hall, Sasakawa Hall, Tokyo

Dr. James A. Lee
Environmental and Health Adviser
Office of Environmental and Health Affairs
World Bank
1818 H Street N. W.
Washington, D. C. 20433
U. S. A.

June 26, 1978

Dear Dr. Lee,

Preliminary Meeting for Symposium
(Chairmen, Lecturers and Interpreters)

We are pleased that Technicon International Symposium take place soon in Tokyo from July 7th to July 9th, where nearly 70 papers will be presented during the three days, many by recognized contemporaries in their respective fields of sciences at home and abroad, having 15 sessions to encompass medical sciences, industrial application and oceanography.

In order to prepare the Symposium in good shape, a preliminary meeting takes place as follows. Kindly be urged to attend the preliminaries. Canapé and beverage are served at your pleasure.

Date: July 6 (Thursday) 3:00p.m.-5:30p.m.

Place: The Sasakawa Hall
5th Floor, Banquet Hall "Kiku"

Attendance: Chairmen, Lecturers, Discussants
and Committee Staffs

Looking forward to meeting with you soon,

Yours sincerely,

M. Narita

Preparatory Committee for The 6th
Technicon International Symposium

Preparatory Committee for The 6th Technicon International Symposium

Hazama Building, 5-8 Kita-Aoyama 2-chome, Minato-ku Tokyo 107 Japan

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Date: 23 June 1978

From: Dr. C. de Quadros, DCD

To: Aide Memoire

Our Ref: AMRO-0170/18/1-1056

Attention:

Your Ref:

Subject: Meeting PAHO-World Bank

Originator:

1. Following exchange of correspondence between the Director and the World Bank on the subject of the EPI and the Revolving Fund for Purchase of Vaccines a meeting was arranged at the technical level to discuss ways of cooperation in World Bank projects that have an immunization component.
2. Participants in the meeting were:
 - a. World Bank: Dr. Bernhard H. Liese,
Office of Environmental and Health Affairs

Dr. Lawrence Casazza
Office of Environmental and Health Affairs
 - b. PAHO: Dr. Ciro de Quadros, Regional Advisor, EPI.
3. Drs. Liese and Casazza were briefed on the background and strategies of the EPI in the Americas and explained the potential of immunization coverage as an indicator to measure the extent of coverage of health services as well as the impact of the activities of the basic health services.
4. Drs. Liese and Casazza explained that several World Bank projects have an immunization component, and the technical input from PAHO in the design of this component would be welcome. In addition, evaluation of this component would be one of the main areas of cooperation and some projects in Brazil could probably serve as basis for a first trial.
5. Drs. Liese and Casazza were given the PAHO documents on the proposed methodology for evaluation of immunization coverage and will be contacting us after further study of the documents.

cc: Director
LO
World Bank
DC

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S- Environment- & Health

THE UNIVERSITY OF NORTH CAROLINA
AT
CHAPEL HILL

The School of Public Health
Department of
Environmental Sciences and Engineering

The University of North Carolina at Chapel Hill
Rosenau Hall 201 H
Chapel Hill, N.C. 27514
919/966-1023

June 23, 1978

Dr. James Lee
Office of Environmental Affairs
World Bank
1818 H Street
Washington, DC 20433

Dear Jim:

As you may know, we have been conducting a series of seminars in developing countries on the environmental aspects of industrial development. These seminars are being conducted under our contract with AID, and the last of these under the present contract is expected to be conducted under the auspices of the Guyana National Science Research Council in Georgetown, Guyana for officials of Guyana as well as other English-speaking countries in the Caribbean during the week of October 16.

This letter is to request that Dr. Robert Goodland be permitted to participate in this seminar with our own faculty. When Dr. Goodland was with the Cary Arboretum, he lectured in our international program in Chapel Hill and was most impressive. He has experience in Guyana and the local government officials would be very happy to have him participate in the seminar there, as he would add a dimension to that which our faculty could bring, inasmuch as we have no direct experience in the country. In particular, we would like to use the Black Bush project as a case study for the seminar, and Dr. Goodland could take our own staff and some of the participants on a field trip to the area prior to the seminar, which is being held at the end of that week.

If necessary, we would be pleased to pay the expenses and subsistence of Dr. Goodland. We feel this is an excellent opportunity to bring an important environmental message to a country that surely needs it. Dr. Goodland's competence and the prestige of the World Bank would add much to the seminar. Your assistance with this would be very much appreciated.

With very best personal regards.

Sincerely,

Daniel A. Okun
Kenan Professor of
Environmental Engineering

DAO:pc

cc: Molly Kux, AID/Washington

P-Environment & Health



Clark University WORCESTER, MASSACHUSETTS 01610

INTERNATIONAL DEVELOPMENT AND SOCIAL CHANGE

CABLE ADDRESS: CINDASC

PHONE: (617) 793-7201

June 23, 1978

Hernan Reitze
Office of Environmental and
Health Affairs
The World Bank
1818 H Street, N.W.
Washington, D. C. 20433

Dear Hernan: *HR*

7/5/78
For P.P. (25)
sent under separate cover

My trip to Eastern and Southern Africa was extremely productive, especially the Symposium on Preparing for Drought in Botswana. I see a note here from Bob Goodland concerning interest in materials related to environment in Botswana. I will be in touch with him soon.

I also write to say how pleased I was that you could stay for the entire training program at Clark. Your contributions were persistently on target. It added a great deal.

Related to the training sessions, I have a request. The World Bank booklet on forestry was quite well received. Would it be possible for you to send us an additional 25 copies for the session which begins on 24 July.

Thanks for your continuing help.

Sincerely,

[Signature]
Richard B. Ford
Assoc. Prof. of History
Co-Director, International
Development Program

RECEIVED
1978 JUN 25 11 11
100-100000

Page 1 of 1

1. The first part of the document is a letter from the President of the United States to the Congress, dated June 1, 1978. The letter is signed by Jimmy Carter and is addressed to the members of the House of Representatives and the Senate. The letter discusses the state of the Union and the progress of the administration's policies.

2. The second part of the document is a letter from the Vice President of the United States to the Congress, dated June 1, 1978. The letter is signed by Walter Mondale and is addressed to the members of the House of Representatives and the Senate. The letter discusses the state of the Union and the progress of the administration's policies.

3. The third part of the document is a letter from the Secretary of the United States to the Congress, dated June 1, 1978. The letter is signed by Frank R. Meyer and is addressed to the members of the House of Representatives and the Senate. The letter discusses the state of the Union and the progress of the administration's policies.

4. The fourth part of the document is a letter from the Attorney General of the United States to the Congress, dated June 1, 1978. The letter is signed by William French Smith and is addressed to the members of the House of Representatives and the Senate. The letter discusses the state of the Union and the progress of the administration's policies.

5. The fifth part of the document is a letter from the Director of the Federal Bureau of Investigation to the Congress, dated June 1, 1978. The letter is signed by J. Edgar Hoover and is addressed to the members of the House of Representatives and the Senate. The letter discusses the state of the Union and the progress of the administration's policies.

6. The sixth part of the document is a letter from the Director of the Central Intelligence Agency to the Congress, dated June 1, 1978. The letter is signed by William E. Brock and is addressed to the members of the House of Representatives and the Senate. The letter discusses the state of the Union and the progress of the administration's policies.

RECEIVED
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June 22, 1978

Mr. Robert Allen
IUCN
International Union for the Conservation of Nature
1110 Morges
Switzerland

Dear Mr. Allen:

Teddy Goldsmith has suggested I contact you concerning several matters. I am interested in and try to promote his WEAP idea wherever possible, especially for the preservation of tracts of tropical wet low-land forest.

How may one become a member of IUCN? Please send me any application forms. I am interested in receiving your IUCN Bulletin. Also, I would be most grateful if you would send me any draft of your "World Conservation Strategy." Luis Huguet of FAO recently showed me a January 1978 version which looks extraordinarily useful for my work here.

Please give my kindest regards to Duncan Poore. We met briefly in the Hague some years ago. I look forward to hearing his views of Brazil's Tapajos forestry scheme we are reviewing.

All best wishes, sincerely,

Rg

Robert Goodland
Office of Environmental and
Health Affairs

RG:amm

June 22, 1978

Dr. Luis Huguet, Director
Forestry Resources
FAO
via Terme di Caracalle
Roma
Italy

Dear Dr. Huguet:

It was a very great pleasure to meet you in Washington last week and I hope to see you again before long. I particularly enjoyed the breath of sanity you provided for the Conference.

During the Conference, you mentioned that an environmental assessment had been requested on the Tsetse fly control program. Would you please send me either a copy of this assesement if ~~it~~ is available, or the name or department where it can be obtained? This information would be most useful in my work here.

I have now read FAO's summary draft "Brazil-Tapajos Forestry Project." It sounds so promising that I have requested the complete report.

All best wishes, sincerely,

RG

Robert Goodland
Office of Environmental and
Health Affairs

RG:Amm

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ZOOLOGY DEPARTMENT

Lembah Pantai
KUALA LUMPUR

ALAMAT KAWAT: UNIVSEL
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20 June, 1978

Bil. Kami:

Professor R. J. A. Goodland,
Department of Environmental Assessment
AB, Millbrook,
New York, 12545, U.S. America

Dear Professor Goodland,

V International Symposium of Tropical Ecology
Kuala Lumpur, Malaysia, 16-21 April, 1979

The University of Malaya and the International Society of Tropical Ecology (ISTE) are jointly organising the above-mentioned international Symposium on the theme "Ecology and Development". We would like to explore this theme through a variety of regular and special sessions dealing with biological, physico-chemical, socio-cultural and/or politico-economic aspects of particular issues or resources (see Appendix). We should be grateful if you would undertake to convene participants for the session on "Impact of major engineering works" so that we could have a fruitful discussion on the subject from the viewpoint of ecology and development. Perhaps you could ask interested participants to contact me so that we could send them the second circular.

Thanking you.

Yours sincerely,

*PS - Perhaps you could
advise us of suitable persons
who may be able to act
as convenors.*

J. I. Furtado
Professor J. I. Furtado
(General Secretary
Organising Committee)

Banco Mundial

REPRESENTANTE RESIDENTE EN COLOMBIA: Carrera 10 No. 24-55, Piso 17 Bogotá, D.E.
Teléfonos—827564-827584 y 827805 • Cables—INTBAFRADLetter No. 96

June 20, 1978

Mr. Hernán Reitze
Office of Environmental
and Health Affairs
World Bank, Room E-1044
1818 H Street, N.W.
WASHINGTON. D.C. 20433. U.S.A.

Dear Hernán:

Further to Mr. Scott's letter of June 8, please find attached letter from the Vice-Ministro de Hacienda on the II Ibero-American Congress for the Environment. You will note that Vice-Ministro Mojica, contrary to the indication of the Congress Secretariat (who would welcome but did not expect a paper from the Bank), expects the Bank to make a significant contribution to the Congress.

With kind personal regards,



J. ROBERTO BENTJERODT
Deputy Resident Representative

cc. Mr. Alberto J. Favilla

INCOMING MAIL UNIT
JUN 25 1978
RECEIVED

June 20, 1978

Letter No. 96

Mr. Hernán Rentería
Office of Environmental
and Health Affairs
World Bank, Room E-1044
1818 H Street, N.W.
WASHINGTON, D.C. 20433, U.S.A.

Dear Hernán:

Further to Mr. Scott's letter of June 8, please find attached
letter from the Vice-Ministro de Hacienda on the II Inter-American
Congress for the Environment. You will note that Vice-Ministro
Mojica, contrary to the indication of the Congress Secretariat
(who would welcome but did not expect a paper from the Bank),
expects the Bank to make a significant contribution to the Congress.

With kind personal regards,

J. ROBERTO RENTERÍA
Deputy Resident Representative

cc. Mr. Alberto J. Pavilla

RECEIVED
1978 JUN 27 PM 4: 26
INCOMING MAIL UNIT



MINISTERIO DE HACIENDA Y CREDITO PUBLICO

DEPENDENCIA:

NUMERO:

Bogotá D. E.,

19 JUN. 1978

Señor
IAN SCOTT
Representante Residente
BANCO MUNDIAL
Carrera 10 # 24-55 Piso 17
La ciudad

Señor Representante:

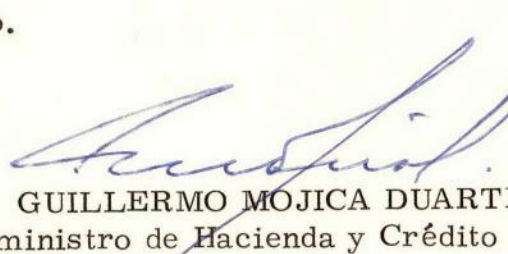
Entre los días 4 y 8 de Septiembre de 1978, Bogotá será la Sede del II Congreso Iberoamericano del Medio Ambiente.

El Congreso es organizado por la Fundación Instituto de Investigaciones Científicas y Técnicas "INCITEC", con el respaldo técnico y científico de instituciones oficiales y del sector privado colombiano.

Teniendo en cuenta que una entidad como el Banco Mundial viene eficientemente vinculada a programas de desarrollo económico y social de Colombia, y que dichos proyectos inciden -en algunos casos- sobre el ambiente y los recursos naturales renovables, este Ministerio sugiere la asistencia y participación efectiva de funcionarios de nivel directivo muy seleccionados de esa importante entidad internacional, a fin de que tengan a su cargo una conferencia magistral y la presentación de ponencias en los temas que consideren del caso.

Por su conducto ruego a usted, presentar ante las Directivas del Banco Mundial, esta solicitud del Gobierno de Colombia.

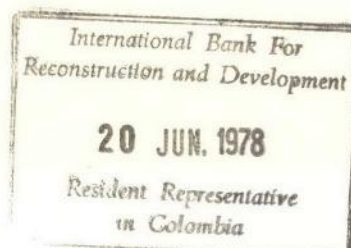
Reciba un cordial saludo.


VICEMINISTRO
MINISTERIO DE HACIENDA Y CREDITO PUBLICO

GUILLERMO MOJICA DUARTE
Viceministro de Hacienda y Crédito Público

Anexo.

I. Scott	
J. Bentjerodt	
M.T. Acevedo	
T. Echoverri	
V. Pineda	
Circulato	
File:	
Library	
Headquarters:	



II CONGRESO IBEROAMERICANO DEL MEDIO AMBIENTE

BOGOTÁ, COLOMBIA 4 AL 8 DE
SEPTIEMBRE DE 1978



BOLETIN No. 2
Mayo 20 de 1978

AMPLIACION
DE FECHAS

— PARA INSCRIPCIONES: FECHA ABIERTA
— PARA ENVIAR TITULOS DE COMUNICACIONES:
HASTA EL 1º DE AGOSTO DE 1978

Aun cuando la fecha para el cierre de inscripciones es abierta, las tareas del Secretariado del Congreso se facilitarán más si su inscripción llega antes del 1º de agosto de este año; se agradece su colaboración en este sentido.

—O—

El Secretariado del Congreso manifiesta sus agradecimientos al Ministerio de Relaciones Exteriores de Colombia por la importante colaboración que, por intermedio de la Sub-Secretaría de Organismos y Conferencias Internacionales, ha recibido en la promoción mundial de este evento.

—O—

El Comité MAB Colombia está conformado por un conjunto interdisciplinario representativo de entidades públicas y privadas cuyas actividades están relacionadas con el Medio Ambiente.

—O—

En la página 3, de este boletín, encontrará usted, la descripción del Programa Oficial del Congreso.

—O—

El Fondo Colombiano de Investigaciones Científicas COL-CIENCIAS, promueve la coordinación de programas de investigación del sector oficial entre sí y los de éste con el sector privados.

—O—

Con el objetivo de ordenar oportunamente, en cantidad suficiente para el número de participantes, la impresión de las memorias y documentos del Congreso, favor confirmar lo más pronto posible su inscripción.

—O—

Se recuerda a los interesados que la fecha para la inscripción de trabajos se ha ampliado hasta el día 1º de agosto de 1978.

—O—

Cumple informar que se han incorporado al Congreso, dando su apoyo institucional, las siguientes entidades:

- Consejo Colombiano de Seguridad.
- Universidad EAFIT de Medellín.
- Fundación América Latina 2001.

—O—

REMITE: I N C I T E C

SECRETARIADO
II CONGRESO IBEROAMERICANO
DEL MEDIO AMBIENTE

CARRERA 19 N° 66-21
BOGOTÁ-COLOMBIA

AVIANCA

TRANSPORTADORA OFICIAL



Wagons-lits

AGENCIA OFICIAL DE
VIAJES Y ALOJAMIENTOS

ALGUNAS COMUNICACIONES LIBRES INSCRITAS

Dentro de las varias comunicaciones libres que se han inscrito, valga nombrar las siguientes:

- Plan maestro de la Isla Victoria.- J. Meyer. Jefe Planeamiento. Buenos Aires. Argentina.
- Participación Iberoamericana en el problema del ozono estratosférico.- H. Vera. Instituto de Investigaciones Físicas. La Paz. Bolivia.
- Residuos producidos en el beneficio del café. (Utilización e incidencia sobre los recursos hídricos).- L. F. Maya. Jefe Sección de Aguas. Armenia. Colombia.
- Estudios, reglamento y control de los recursos hídricos. Cuenca del Alto Cauca.- R. Arias. Jefe de Control de la Contaminación C.V.C. Cali. Colombia.
- Programa experimental de Educación Ambiental, desarrollo y protección del Medio Ambiente. Universidad Nacional de Heredia. Costa Rica.
- La radiación Ultravioleta del sol y su influencia en el Medio Ambiente.- D. Díez. Jefe Laboratorio Junta de Energía Nuclear. Madrid. España.
- Nuevos desarrollos en el tratamiento técnico de aguas en Europa y su aplicación en Latinoamérica. Profesor Koot. Universidad de Delft. Holanda (Países Bajos).
- Determinación de Cromo en pelo y orina de una población no expuesta ocupacionalmente en el Estado de México.- A. Báez y Rosas. Centro de Ciencias de la atmósfera U.N.A.M. México.
- Acerca del Derecho Ambiental Iberoamericano.- F. J. Iturraque. Asociación Defensa contra la Contaminación Ambiental. Lima. Perú.

—O—

FIRMAS PARTICIPANTES QUE EXHIBIRAN EQUIPOS

ZEISS (Alemania Occidental), presentará equipos, analizadores de gases, utilizables en el control de la polución ambiental. Los visitantes tendrán también la oportunidad de apreciar los equipos de electrofotometría para análisis de agua.

APROCIN LTDA. Distribuidores exclusivos para Colombia, de Fisher Cientific Company. Suministra equipos para Laboratorio de Control de calidad y Laboratorios Físicos Químicos, para el Control de la Contaminación Ambiental.

Dirección: Carrera 5ª N° 16-14, Bogotá. Tels. 2 41 82 79 y 2 34 55 47.

DEGREMONT COLOMBIA.- Presentará un stand acerca de información técnica sobre control y recuperación de aguas.

—O—

FIRMAS BENEFACTORAS

Es del caso señalar que se han vinculado como benefactoras de este certamen Iberoamericano del Medio Ambiente, las siguientes firmas colombianas:

- ACERIAS PAZ DEL RIO, S. A.
- AVIANCA
- Compañía Colombiana de Productos Lácteos. CICOLAC.
- ETERNIT COLOMBIANA S. A.
- ENKA DE COLOMBIA S. A.
- PROPAL. Productora de Papel S. A.
- WAGONS-LITS.

NOTICIAS VARIAS

A los interesados, se informa que la agencia oficial de viajes y alojamientos Wagons-Lits Turismo organiza varios tours a las ciudades de Cartagena, Santa Marta y San Agustín durante los cuales se podrán conocer monumentos importantes de arquitectura colonial y culturas precolombinas como la Tayrona y la Agustiniense. Además, de los aspectos turísticos mencionados, se ofrecen opciones para admirar en estas regiones Parques Nacionales Naturales, ecosistemas como la Isla de Salamanca, y, para visitar laboratorios de investigaciones Marinas como los de Punta de Betín y el Centro de Investigaciones Pesqueras.

El Secretariado del Congreso manifiesta sus reconocimientos a PROPAL de Colombia, quien ha hecho posibles la publicación de este Boletín mediante la donación del papel requerido.

Señor Empresario: Una de las maneras de colaborar en el auspicio de este Congreso, es la de inscribir al personal científico, técnico y administrativo de su entidad, a fin de que asistan y actúen en las deliberaciones y en los grupos de trabajo.

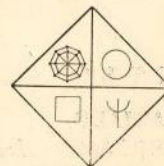
El Consejo Colombiano de Seguridad, mediante comunicación N° 28775-G, ha invitado a 260 de sus firmas afiliadas a participar efectivamente en el Congreso.

El Instituto de Investigaciones Tecnológicas I.I.T. Dentro de su misión genral de promover el mejoramiento tecnológico en Colombia, realiza trabajos en relación con la Preservación del Medio Ambiente, especialmente en contaminación de aguas marinas y en residuos continentales de pesticidas, en productos alimenticios.

El secretariado informa que está a su alcance gestionar la consecución de algunos auxilios de fondos para pasajes y estipendios para asistir al Congreso. Los aspirantes a este beneficio deben dirigirse antes del 15 de julio del año en curso al Secretariado del Congreso, Comité de Ponencias y Trabajos, el cual previo estudio de las solicitudes les dará curso para seleccionar los candidatos a ser presentados ante la entidad patrocinadora.

Las solicitudes en este sentido vendrán acompañadas de: 1.- Título y resumen del escrito fundamental. 2.- Nombre, dirección y profesión del autor. 3.- Curriculum Vitae. 4.- Nombre y dirección de la entidad donde colabora, indicando el desempeño que en ella cumple. Se entiende que los auxilios por este concepto no incluyen la cuota de inscripción, la cual es por cuenta del interesado.

EMBLEMA DEL CONGRESO







Simbólicamente este emblema es significativo con respecto del problema ambiental cuya gran generalidad, es hoy por hoy, reseñable de la siguiente manera:

1. Acúmulo en las capas superiores de la atmósfera terrestre, de masas gaseosas implicas de modificaciones térmicas, todo ello derivado de la acción humana, lo cual amenaza, por modificaciones de la composición de la energía radiante, transformar la calidad de la radiación solar que llega a la tierra. *Alteración del Fuego.*
2. Descargas en el aire de gases, humos y nubes de partículas que modifican propiedades, de este poder ser utilizado saludablemente por organismos vivientes, *Alteración del Aire.*
3. Incorporación de sustancias en los suelos, perturbadoras de calidades ecológicas de éstos, concernientes a la producción perma-

nente renovada de alimentos vegetales y animales para consumo humano, y para la producción de materias primas vegetales, *Alteración de la Tierra*.

4. Contaminación de aguas continentales y marinas con sustancias que las tornan inapropiadas para la persistencia de cualquier forma de vida, *Alteración del Agua*.

Dentro de este estado de cosas, es apropiado decir que hoy los humanos atentamos contra aquello que, siguiendo la tradición heraclítica, se suele denominar los cuatro elementos: FUEGO, AIRE, TIERRA, AGUA, y por ende es, además, explicable que una vez consultada la simbología antigua (*) se haya diseñado la divisa del Congreso conforme al siguiente simbolismo:

- Dos octógonos concéntricos dentados, , son el símbolo geométrico del FUEGO.
- El círculo, , sin centro marcado es el símbolo geométrico del AIRE.
- El cuadrado, , es el símbolo geométrico de la TIERRA.
- El tridente, , es el símbolo geométrico del AGUA.

La divisa así conformada, no sólo ha de servir como simple distintivo de este II Congreso Iberoamericano del Medio Ambiente, sino que, como emblema, sea ideografía que conduzca a reflexionar acerca del contenido explícito e implícito en los siguientes arreglos de algunos fragmentos de Heráclito (Siglo VI antes de J. C.) (**)(***).

- Fragm. 30 "Este cosmos es uno mismo para todos los seres... Siempre ha sido y será fuego eternamente viviente".
- Fragm. 90 "Del fuego son cambio todas las cosas, y el fuego es cambio de todas...".
- Fragm. 31 "Transformaciones del fuego son: primero el mar, luego, del mar la mitad tierra y la mitad vapor inflamado...".
- Fragm. 36 "Para las almas es muerte convertirse en agua, para el agua, en cambio, es muerte convertirse en tierra, pero de la tierra nace el agua y del agua el alma".

(*) J. E. Cirlot. Diccionario de Símbolos. Editorial Labor. Barcelona, 1969.
B. Russell. La Sabiduría de Occidente, pág. 79, Editorial Aguilar. Madrid, 1964.

(**) Heráclito. Fragmentos. Traducción del griego, exposición y comentarios de Luis Farre. Págs. 130, 128, 161. Aguilar. Buenos Aires, 1963.

(***) R. Mondolfo. Heráclito. Textos y Problemas de su interpretación, págs. 34, 35, 41.. Siglo XXI Editores, México. 1966.

* * *

DESCRIPCION DEL PROGRAMA OFICIAL DEL II CONGRESO IBEROAMERICANO DE MEDIO AMBIENTE

I

OBJETIVO DEL CONGRESO

Como la gestión (políticas), la organización (estructuras) y la administración (ejecución) de la sociedad, tradicionalmente particionada (sector público, sector privado), carentes de articulación efectiva entre sus diferentes órganos, encuentra en todos los países grandes dificultades para evitar y resolver problemas de alteración del ambiente.

Este Congreso tiene como objetivo propiciar un encuentro de los sectores, privado y público, comunidad científica y organismos internacionales Iberoamericanos, a fin de concretar rumbos, sugerencias y recomendaciones acerca de las nuevas modalidades de estructura y acción de la sociedad en cuanto a:

- Formulaciones políticas racionales y vigorosas.
- Instrumentos jurídicos apropiados y convenientes.
- Adecuación de conceptos y de mecanismos financieros, y

- Identificación e instrumentación de los deberes y roles conjuntos que han de cumplir los grandes sectores productivos de la sociedad: el sector privado, el sector público y la comunidad científica.

II

CAMPOS DE INTERES Y PARTICIPANTES

Este II Congreso tiene como campo concreto de interés el de contribuir efectivamente a encontrar respuesta a interrogantes como:

1. ¿Qué piensan, qué hacen y qué deben hacer conjuntamente: el Sector Productivo Privado, el Sector Productivo Público y la Comunidad Científica y las Entidades Internacionales vinculadas a Iberoamérica, acerca de la prevención y solución de problemas ambientales?
2. ¿Cuáles son, en el mundo Iberoamericano, las implicaciones, efectos y consecuencias de las Políticas Ambientales, en los planes de Desarrollo Económico y Social?
3. ¿Cuáles son, en lo conceptual y en la práctica, las implicaciones que los modelos mundiales de Desarrollo, como el del Club de Roma y el de Bariloche, tienen o tendrán en los modelos de Desarrollo de las Naciones Iberoamericanas?
4. ¿Cuáles son los factores económicos y sociales que mayor influjo tienen en la contaminación y alteración del ambiente en los países Iberoamericanos, y cuáles son las opciones, más plausibles, de modelos financieros y mecanismos sociales para solventar los costos de la aplicación de los mandatos de la legislación en la prevención y solución de problemas ambientales en los países Iberoamericanos?
5. ¿Cómo salvar el peligro de soluciones ambientales, por exceso o defecto, dependientes más de actitudes ideales y no de realidades, a fin de evitar efectos y consecuencias económicas principalmente derivados de la aplicación de soluciones a problemas de ambiente ocasionados por transporte motorizado, basuras, desechos, desperdicios, usos de herbicidas y plaguicidas en la producción agropecuaria?
6. ¿Cuáles son los avances científicos y técnicos (ocurridos desde 1975 a 1978, para descubrir, evitar y corregir la contaminación y las alteraciones ambientales) utilizables en las formas económicas de producción, uso y reposición de bienes y servicios en los países Iberoamericanos?

Participantes

Participarán en el Congreso, representantes de los sectores público y privado productivos y la comunidad científica y de las organizaciones internacionales interesadas en problemas ambientales.

III

TEMARIOS

Los escritos fundamentales (ponencias) se han de referir a uno o a varios de los puntos temáticos que se indican en este apartado, y deben llegar a proponer recomendaciones concretas, las que serán remitidas, durante las sesiones del Congreso, a los grupos de trabajo para su discusión.

Temario 1.

Políticas y modelos de Desarrollo Económico y Administración Ambiental. (Estrategias de Desarrollo Industrial y solución de problemas ambientales.

Temario 2.

Legislación ambiental comparada y modelos fiscales y financieros en la solución de problemas ambientales.

Temario 3.

Producción agropecuaria de materias primas y alimentos compatible con la solución de problemas ambientales.

Temario 4.

Recursos técnicos humanos necesarios para la Administración Ambiental.

Temario 5.

Comparación de modelos de administración ambiental, salud pública y Recursos Naturales Renovables.

Temario 6.

Características y usos de los sistemas de información ambiental, en los países Iberoamericanos.

IV

ORGANIZACION

Las sesiones del Congreso tendrán lugar del 4 al 8 de septiembre de 1978, en el Hotel Tequendama Intercontinental, Bogotá-Colombia.

Tres son las secciones previstas para la inscripción de participantes a saber:

Sección I - Política Ambiental

Constituída por tres grupos de trabajo:

1. Grupo de Trabajo Sector Productivo Privado.
2. Grupo de Trabajo Sector Productivo Público.
3. Grupo de Trabajo Comunidad Científica.

los cuales se ocuparán de opciones de políticas, organización y administración ambientales en los países Iberoamericanos con respecto de los objetivos, intereses y temas planteados.

Sección II - Presentación y lectura de comunicaciones libres.

Los temas de esta Sección se agrupan en los siguientes cinco apartes:

1. Aire y radiaciones.
2. Agua.
3. Residuos sólidos industriales y domésticos.
4. Protección de la naturaleza.
5. Ordenación de territorio y actividades humanas.

Sección III - Paneles Técnicos.

Esta Sección se ocupará de:

1. Formación de especialistas.
2. Investigación.
3. Legislación ambiental y,
4. Discusión y aprobación de los Reglamentos del Secretariado del Congreso.

V

CALENDARIO Y HORARIOS

Los eventos del Congreso tendrán lugar en el Hotel Tequendama Intercontinental de Bogotá (Salón Rojo, Salón Bolívar, Salón Esmeralda).

Lunes 4 de septiembre:

09:00 - 18:00 Salón Bolívar.

Registro.

11:00 - 13:00 Salón Rojo.

Instalación del Congreso por el Excelentísimo señor Presidente de la República de Colombia.

15:30 - 18:30 Salón Rojo.

Conferencias magistrales a cargo de directivos Iberoamericanos.

18:30 - 19:30 Salón Esmeralda (ver horario en la página).

Inauguración de la exhibición de instrumentos, equipos y catálogos de firmas Constructoras, Asesoras, Consultoras y de Instituciones, relacionadas con el Control de la Contaminación Ambiental.

20:00 - 21:30 Salón Rojo.

Cocktail de bienvenida.

Martes 5 de septiembre:

09:00 - 13:00 Salón Rojo.

Sesión Plenaria. Temario 1.

Presentación de comunicaciones sobre el Temario 1: Políticas y modelos de desarrollo económico y administración ambiental.

Sesión Plenaria. Temario 3.

Presentación de comunicaciones sobre el Temario 3: Producción agropecuaria, de alimentos y materias primas, compatible con la prevención y solución de problemas ambientales.

10:45 - 11:00 Café y Refrescos.

15:00 - 17:00 SALON I.

Grupos de trabajo sobre las exposiciones matinales acerca del temario 1.

SALON II.

Grupos de trabajo sobre las exposiciones matinales acerca del temario 3.

17:15 - 17:30 Café y Refrescos.

17:30 - 19:00 Salón Rojo. Hotel Tequendama.

Presentación y lectura de comunicaciones libres.

Miércoles 6 de septiembre:

09:00 - 13:00 Salón Rojo.

Sesión Plenaria. Temario 2.

Presentación de comunicaciones sobre el Temario 2: Legislación Ambiental y modelos fiscales y ambientales.

Sesión Plenaria. Temario 5.

Presentación de comunicaciones sobre el Temario 5: Comparación y modelos de administración ambiental, salud pública y recursos naturales renovables.

10:45 - 11:00 Café y refrescos.

15:00 - 17:00 SALON I.

Grupos de trabajo sobre las exposiciones matinales del Temario 2.

SALON II.

Grupos de trabajo sobre las exposiciones matinales del Temario 5.

17:00 - 18:00 SALON III.

Reunión de comisiones relatoras para preparar conclusiones y recomendaciones. Temario 1.

SALON IV.

Reunión de comisiones relatoras para preparar conclusiones y recomendaciones. Temario 3.

17:30 - 19:00 Salón Rojo.

Presentación y lectura de comunicaciones libres.

20:30 Actos Culturales.

Jueves 7 de septiembre:

09:00 - 13:00 Salón Rojo.

Sesión Plenaria. Temario 4.

Presentación de comunicaciones sobre el Temario 4: Recursos Técnicos humanos necesarios para la administración ambiental.

Sesión Plenaria. Temario 6.

Presentación de comunicaciones sobre el Temario 6: Características y usos de los sistemas de información ambiental en los países Iberoamericanos.

10:45 - 11:00 Café y refrescos.

15:00 - 17:00 SALON I.

Grupos de trabajo sobre las exposiciones matinales del Temario 4.

SALON II.

Grupos de trabajo sobre las exposiciones matinales del Temario 6.

17:00 - 18:00 SALON III.

Reunión de comisiones relatoras para preparar conclusiones y recomendaciones. Temario 2.

SALON IV.

Reunión de comisiones relatoras para preparar conclusiones y recomendaciones. Temario 5.

17:30 - 19:00 Salón Rojo.

Presentación y lectura de comunicaciones libres.

Viernes 8 de septiembre:

8:00 - 9:30 SALON I.

Reunión de comisiones relatoras para preparar conclusiones y recomendaciones sobre el Temario 4.

SALON II.

Reunión de comisiones relatoras para preparar conclusiones y recomendaciones sobre el Temario 6.

SALON III.

Reunión de los grupos temáticos para la revisión y aprobación de las conclusiones y recomendaciones.

10:30 - 11:30 Salón Rojo.

Reunión Plenaria del Congreso y Clausura Oficial.

11:30 - 18:00 Tarde Libre.

19:00 - 21:00 Salón Rojo.

Cocktail de Clausura.

HORARIO DEL SALON DE EXHIBICION

Salón Esmeralda - Hotel Tequedama.

Lunes 4 de septiembre:

Inauguración 17:30 - 20:00.

Martes 5 de septiembre:

09:00 - 13:00.

15:00 - 20:00.

Miércoles 6 de septiembre:

09:00 - 13:00.

15:00 - 20:00.

Jueves 7 de septiembre:

09:00 - 13:00.

15:00 - 20:00.

Viernes 8 de septiembre:

09:00 - 13:00.

15:00 - 20:00.

Sábado 9 de septiembre:

09:00 - 13:00.

VI

INFORMACIONES COMPLEMENTARIAS

FECHAS LIMITES

Para el envío de títulos de comunicaciones	Agosto 1º 1978
Para inscripciones al Congreso	Fecha abierta

CUOTA DE INSCRIPCION

Delegados	US\$ 100.00
Acompañantes	US\$ 30.00

LA CUOTA DE INSCRIPCION AL CONGRESO DA DERECHO A:

- Recibimiento, asistencia y traslado desde el aeropuerto "Eldorado" de Bogotá, hasta el hotel y viceversa.
- Tarjetas de invitación para:
 - Solemne Inauguración.
 - Cocktail de bienvenida.

Acto Cultural.

Cocktail y ceremonia de clausura.

PROGRAMA PARA LAS DAMAS Y ACOMPAÑANTES:

- La cuota de inscripción da derecho a asistir a todos los actos mencionados en el párrafo anterior.
- En horarios adecuados visitarán la ciudad, industrias artesanales, la Catedral de Sal de Zipaquirá, Centros Comerciales; además concurrirán a los eventos sociales del Congreso.

INFORMACION GENERAL:

El Secretariado del Congreso tiene su sede en:

INCITEC

Carera 19 Nº 66-21

Bogotá, Colombia

Teléfono: 2 35 03 15

Hotel sede de las Sesiones del Congreso:

HOTEL TEQUENDAMA INTERCONTINENTAL

Carrera 10ª Nº 26-21

Bogotá, Colombia

Teléfonos: 2 82 30 66

2 82 90 66

NOMBRAMIENTOS OFICIALES:

Línea Aérea Transportadora

AVIANCA

Agencia de Viajes y Turismo

WAGONS|LITS|
COOK

WAGONS|LITS|COOK (Bogotá)

Departamento de Congresos

Carrera 5ª Nº 15-91 - Oficina 401

Bogotá, D. E.

Colombia

WAGONS|LITS|COOK (Medellín)

Centro Coltejer Local 108

Teléfonos: 31 83 12 ó 31 83 32

Medellín, Antioquia

Colombia

WAGONS|LITS|COOK (Cali)

Carrera 4ª Nº 12-41

Centro Seguros Bolívar, Local 204

Teléfono: 89 41 51

Cali, Valle

Colombia

NOTA:

Tanto las inscripciones como las reservas hoteleras y sus respectivos pagos, se deben enviar directamente a WAGONS|LITS|COOK (Bogotá), así:

- Cheques por concepto de inscripciones girados a nombre de INCITEC (Nit. 60 042 994).
- Cheques por concepto de reservas hoteleras, girados a nombre de WAGONS|LITS|COOK.

INFORMACION SOBRE EL PROGRAMA TURISTICO
QUE OFRECE WAGONS|LITS|COOK

CARTAGENA

3 Noches - 4 Días

Día 1º

Llegada a Cartagena, recepción en el aeropuerto, asistencia y traslado al hotel.

Tarde libre para disfrutar de las playas.

Día 2

Desayuno en el hotel.

90:30 - Visita a la ciudad amurallada, construida por los españoles para defender los tesoros y joyas que guardaban en la ciudad, sin duda una de las más bellas de América.

Tarde libre para actividades personales y para disfrutar de las playas.

Día 3

Desayuno en el hotel.

09:00 - Visita al interesante Laboratorio Marino del Inderena.

Tarde libre para disfrutar de las playas.

Día 4

Desayuno en el hotel.

PRECIOS NETOS POR PERSONA

(Sin incluir el tiquete aéreo).

	Hotel de Lujo (Capilla del Mar)	Hotel Primera Clase (Dorado)
(Para dos personas)		
En habitación sencilla	US\$ 151.70	US\$ 110.30
En habitación doble	US\$ 127.40	US\$ 92.90
(Para 15 ó más personas)		
En habitación sencilla	US\$ 140.70	US\$ 99.30
En habitación doble	US\$ 116.40	US\$ 81.90
En habitación triple	US\$ 104.40	US\$ 75.90

SANTA MARTA

4 Días - 3 Noches

Día 1º

Llegada a Santa Marta, recepción en el aeropuerto, asistencia y traslado al hotel.

Tarde, visita a la ciudad (3½ Hrs.).

Día 2

Desayuno en el hotel.

09:30 - Visita al famoso Laboratorio de Investigaciones Marinas de Punta Betín.

Tarde libre para disfrutar de las playas.

Día 3

Desayuno en el hotel.

09:30 - Excursión a las playas de Cañaverales y Parque Tayrona, único en el mundo. Su parque con la mayor variedad de aves y los restos de una Civilización Precolombina, considerada como uno de los vestigios antiguos más importantes.

Día 4

Desayuno en el hotel.

Traslado al aeropuerto para tomar el vuelo con destino a...

PRECIOS NETOS POR PERSONA

(Sin incluir el tiquete aéreo).

	Hotel de Lujo (Irotama)	Hotel Primera Clase (La Sierra)
(Para dos personas)		
En habitación sencilla	US\$ 133.95	US\$ 119.85
En habitación doble	US\$ 111.45	US\$ 101.70
(Para 15 ó más personas)		
En habitación sencilla	US\$ 111.25	US\$ 90.10
En habitación doble	US\$ 88.75	US\$ 74.20
En habitación triple	US\$ 80.95	US\$ 68.95

SAN AGUSTIN

4 Días - 3 Noches

Día 1º

11:00 - Traslado al aeropuerto para tomar el vuelo AP-220 con destino Neiva.

13:45 - Llegada a Neiva y traslado a la "Hostería Matamundo" donde será servido el almuerzo.

En la tarde traslado en Auto-Pullman a Pitalito (3½ Hrs. aprox.). Llegada a Pitalito y traslado al Hotel Timanco.

Cena y alojamiento en el hotel.

Día 2

Desayuno en el hotel.

Visita al Parque Arqueológico, una de las principales zonas en San Agustín, donde actualmente se encuentran muchas de las estatuas que hasta ahora han sido descubiertas. Podrán observar la Fuente de Lavapatas, el monumento tal vez más importante de la Cultura Agustiniana, consiste en una maza indecifrable de canales decorada con figuras, cabezas, serpientes, etc.

Almuerzo en la "Hospedería Osoguaico".

En la tarde regreso a Pitalito. Cena y alojamiento en el hotel.

Día 3

Desayuno en el hotel.

Visita al "Alto de Los Idolos", el segundo en importancia de la Cultura Agustiniana, el cual está situado en San José de Isnos a 18 milas de San Agustín, en este sitio se encuentra una serie de tumbas.

Almuerzo y cena en el hotel. Alojamiento.

Día 4

Desayuno en el hotel.

07:30 - Traslado al aeropuerto de Neiva en auto-pullman.

12:30 - Llegada a Neiva y traslado a la "Hospedería Matamundo" donde será servido el almuerzo.

15:00 - Traslado al aeropuerto para tomar el vuelo AP-221 con destino Bogotá.

16:45 - Llegada a Bogotá, asistencia en el aeropuerto y traslado al hotel.

PRECIOS NETOS POR PERSONA

(Sin incluir el tiquete aéreo).

En habitación sencilla	US\$ 302.55
En habitación doble	US\$ 295.05
(Para 15 ó más personas)	..
En habitación sencilla	US\$ 145.75
En habitación doble	US\$ 138.25
En habitación triple	US\$ 131.05

CUADRO RESUMEN DEL PROGRAMA DEL CONGRESO

Lunes 4	Martes 5	Miércoles 6	Jueves 7	Viernes 8
<p>09:00 - 18:00 Salón Bolívar</p> <p>Registro.</p> <p>11:00 - 13:00 Salón Rojo</p> <p>Instalación del Congreso por el Excelentísimo señor Presidente de la República de Colombia.</p>	<p>09:00 - 13:00 Salón Rojo</p> <p>Sesión Plenaria. Temario 1. Sesión Plenaria. Temario 3.</p> <p>10:45 - 11:00 Café y refrescos.</p>	<p>09:00 - 13:00 Salón Rojo</p> <p>Sesión Plenaria. Temario 2. Sesión Plenaria. Temario 5.</p> <p>10:45 - 11:00 Café y refrescos.</p>	<p>09:00 - 13:00 Salón Rojo</p> <p>Sesión Plenaria. Temario 4. Sesión Plenaria. Temario 6.</p> <p>10:45 - 11:00 Café y refrescos.</p>	<p>8:00 - 9:30 Salones I y II</p> <p>Reunión comisiones relatoras para preparar conclusiones y recomendaciones temarios 4-6</p> <p>Salón III</p> <p>Reunión de grupos temáticos para revisión y aprobación de conclusiones y recomendaciones 09:30 - 10:30 Café y refrescos. 10:30 - 11:30 Salón Rojo</p> <p>Reunión Plenaria del Congreso y Clausura Oficial.</p>
<p>15:30 - 18:30 Salón Rojo</p> <p>Conferencias Magistrales a cargo de Directivos Iberoamericanos.</p>	<p>15:00 - 17:00 Salones I y II</p> <p>Grupos de trabajo sobre los temarios 1 y 3.</p> <p>17:15 - 17:30 Café y refrescos.</p>	<p>15:00 - 17:00 Salones I y II</p> <p>Grupos de trabajo sobre los Temarios 2 y 5.</p> <p>17:15 - 17:30 Café y refrescos.</p> <p>17:00 - 18:00 Salones I, II y III</p> <p>Reunión comisiones relatoras para preparar conclusiones y recomendaciones Temarios 1-3.</p>	<p>15:00 - 17:00 Salones I y II</p> <p>Grupos de trabajo sobre los temarios 4 y 6.</p> <p>17:15 - 17:30 Café y refrescos.</p> <p>17:00 - 18:00 Salones I, II y III</p> <p>Reunión comisiones relatoras para preparar conclusiones y recomendaciones temarios 2-5.</p>	<p>Tarde libre.</p>
<p>18:30 - 19:30 Salón Esmeralda</p> <p>Inauguración de la exhibición de instrumentos, equipos y catálogos.</p> <p>20:00 - 21:30 Salón Rojo</p> <p>Cocktail de bienvenida.</p>	<p>17:30 - 19:00 Salón Rojo</p> <p>Presentación y lectura de comunicaciones libres y paneles técnicos:</p> <ul style="list-style-type: none"> — Panel: Formación de especialistas. — Panel: Investigación. — Panel: Legislación ambiental. 	<p>20:30 Salón Rojo</p> <p>Acto Cultural.</p>		
				<p>19:00 - 21:00</p> <p>Salón Rojo</p> <p>Cocktail de Clausura.</p>

BOLETIN DE INSCRIPCION — II CONGRESO IBEROAMERICANO DEL MEDIO AMBIENTE

Desea inscribirse en la:

Sección I ☐

Sección II ☐

Sección III ☐

Paneles ☐

Formación de Especialistas ☐

Investigación ☐

Legislación ☐

Nombre

Dirección

Profesión

Presenta comunicación SI ☐ NO ☐

Título:

Sírvase diligenciar este formulario y acompañarlo del cheque respectivo a nombre de **IN C I T E C** (NIT No. 60.042.994), por correo certificado al Secretariado, carrera 19 No. 66-21, Bogotá - Colombia.

WORLD HEALTH
ORGANIZATION



ORGANISATION MONDIALE
DE LA SANTÉ

1211 GENEVA 27 - SWITZERLAND
Télegr.: UNISANTE-Geneva

Tél. 34 60 61 Téléc. 27821

1211 GENÈVE 27 - SUISSE
Télégr.: UNISANTÉ-Genève

In reply please refer to:
Prière de rappeler la référence:

V2/440/40

20 June 1978

Dear Mr Reitze,

Further to our letter of 14 December 1977 inviting The World Bank to attend a Seminar on the Prevention and Control of Vector Borne Diseases in Water Resources Development Projects to be held in Alexandria and the Sudan, the Seminar has now been completed and we are sending you 5 copies of the Report on its activities as requested by you, under separate cover.

We should particularly like to draw your attention to Annex 10 - Checklist of Major Steps for the prevention and control of vector borne diseases at each phase of water resources development projects.

Would you please let us know if you require any further copies of this report.

Yours sincerely,

H.A. Rafatjah
Chief, Equipment Planning
and Operations
Division of Vector Biology
and Control

Mr H. Reitze
Office of Environmental and
Health Affairs
The World Bank
1818 H. Street
N.W. Washington, DC 20433
USA

INCOMING MAIL UNIT
1818 H. ST. W. DC 20433
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ORGANISATION MONDIALE
DE LA SANTÉ



WORLD HEALTH
ORGANIZATION

1211 GENEVE 27 - SUISSE
Télég. : UNISANTE-Geneve

Tél. 34 60 81 Télec. 27821

1211 GENEVA 27 - SWITZERLAND
Telegr. : UNISANTE-Geneva

20 June 1978

VS/40/40

In reply please refer to:
Prise de rapport de référence

Dear Mr. Reitze,

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We should particularly like to draw your attention to Annex 10 - Checklist of Major Steps for the prevention and control of vector borne diseases at each phase of water resources development projects.

Would you please let us know if you require any further copies of this report.

Yours sincerely,

H.A. Rafatiah
Chief, Equipment Planning
and Operations
Division of Vector Biology
and Control

Mr. H. Reitze
Office of Environmental and
Health Affairs
The World Bank
1818 H. Street
N.W. Washington, DC 20433
USA

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1978 JUN 27 AM 11: 03
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Dr. James A. Lee, Office of Environmental and
Health Affairs
Robert Goodland

June 20, 1978

Tropical Deforestation and Tsetse Eradication RG

1. Accolades---sincere, numerous and independent---were bestowed on the World Bank's Forestry Sector Policy Paper throughout the Strategy Conference on Tropical Deforestation (agenda attached), particularly for the environmental component. UNEP's official representative Noel Brown incisively concluded the Conference emphasizing the urgent need for environmental input into development policies and showed his superb, new film revealing the fuelwood crisis in our borrowing nations.

2. The Conference questioned the long term economic wisdom of converting vast tracts of tropical moist forest to agriculture (excluding trees) and singled out cattle pasturage for especial concern. The Conference noted the relationship between US beef import policies and irreversible destruction of the resource base throughout Central America and Amazonia. The U.S. Department of State and AID received a specific resolution to review cattle policies.

3. Tsetse eradication programs in "millions of square kilometers of Africa" drew direct condemnation in the final plenary session. The leader of the official FAO delegation, Luis Hugué, acknowledged the problem and stated that an environmental assessment is being prepared. The implication I drew was that FAO is waiting for this assessment before further commitments to tsetse eradication. Official proceedings will be issued soon. Meanwhile Mrs. Betty Luke has most of the handouts.

cc: Messrs. R.Overby-OEHA
J.Tixhon-OEHA
H.Reitze-OEHA
J.Spears-AGR
R.Fishwick-WAP
D.Pickering-AGR
K. Meyn-EAP
R.Skillings-LC2
A.Favilla-LC2
J.K.Coulter-CGR

RG:amm



UNITED NATIONS ENVIRONMENT PROGRAMME
PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT



Cable Address: UNITERRA, Nairobi
Telex No. 22068
Telephone: 333930

P. O. Box 30552,
Nairobi.

*6/30/78
Cable to Paulle*

Ref. No.

19 June 1978

Dear Dr. Lee,

I am writing to ask for your assistance in setting up a meeting with you or several members of your staff in connection with a United Nations Environment Programme (UNEP) project to assist national governments, particularly developing countries, in identifying and controlling hazardous pollutants. I will be in Washington from July 11 to July 14 and I hope we can arrange to meet during this time. Since I will be at the Environmental Protection Agency part of this time I would prefer to meet Wednesday morning July 12 if this is convenient. (I will contact you on July 11 to confirm or schedule an alternate time).

The project to assist national authorities identify and control hazardous pollutants has several components. The first phase is to identify several lists of hazardous pollutants which are of concern and deserve priority attention. A draft report on this task has been prepared and will be made available to you upon my arrival. The details of the remaining components (including both health and economic considerations) of this project are still in the planning stage. Two areas of emphasis are expected to be, (i) guidelines in the form of assessment methodologies, and (ii) procedures for translating risk assessments into practical control policies.

In the area of assessment methodologies UNEP intends to work closely with WHO in developing appropriate methods for performing risk assessments on the effects of chemicals on health. Another project in this area is to give national authorities practical guidance on determining how much pollution control will be needed from a given source to achieve a prescribed level of environmental quality. Further, UNEP intends to develop a methodology (hopefully, in collaboration with the economic agencies) for estimating the national economic and energy implications of various pollution control activities. The object here is to provide national authorities with a simple step-by-step approach for estimating the capital requirements, employment effects and foreign trade implications of pollution control measures. I hope to discuss this last issue with you as well as with the Organization for Economic Cooperation and Development to see if there are any possibilities for mutual cooperation.

In the second area of emphasis, UNEP would like to help national governments particularly in developing areas reach balanced environmental decisions involving health, economic and energy considerations. A possible approach is to issue a monograph which discusses a number of administrative remedies (e.g. emission controls, ambient standards, warning labels, etc.) to cope with various environmental problems. The monograph should also discuss the mechanics of the decision process, for example, those components which involve matters of scientific evaluation and those which involve judgements by the politically responsible leaders should be identified. Case studies, such as, effluent limitations for a textile mill or PCB disposal requirements could be drawn from actual situations to illustrate how economic and health considerations are "balanced" in the decision process.

Dr. James Lee,
Director, Office of Environmental and
Health Affairs,
World Bank,
Washington DC 20433,
USA.

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1978 JUN 27 AM 11: 03

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1978 JUN 27 - AM 11: 03

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- 2 -

I would like to discuss these topics with you when I visit Washington. Specifically, I would like to discuss (i) what are the opportunities for cooperation between the World Bank and UNEP in developing economic and energy impact assessment methodologies of pollution control measures, and (ii) what material is available for developing illustrative case studies of environmental decisions.

I look forward to our meeting and I hope this relatively short notice does not cause you any inconvenience. I would be most grateful if you could telex confirmation of these plans. Thank you in advance for your assistance.

Sincerely,



John Butler
UNEP Consultant
Pollution and Human Health
Task Force



S-Environment & Health

UNITED NATIONS ENVIRONMENT PROGRAMME
PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT



Télégrammes : UNITERRA, PARIS

Téléphone : 766.16.40
227.45.12

Télex : 650273

RÉF. N° : 1562

INDUSTRY AND ENVIRONMENT OFFICE
DEPARTEMENT INDUSTRIE ET ENVIRONNEMENT

17, rue Marguerite
75017 PARIS - France

June 16, 1978

Dear Jean,

Environmental Consultative Committee for the Aluminium Industry

Please find, enclosed, the final version of the Record of the First Meeting of the Environmental Consultative Committee for the Aluminium Industry, which incorporates the comments and corrections received up till June 12, 1978, by the Secretariat from members of the Committee.

We should like to remind you of the agreement recorded in paragraphs 19 and 21 that information would be requested from members of the Committee on their experience with regards to :

- (i) use and disposal of bauxite residues, including effects observed in relation to marine disposal of residues ;
- (ii) environmental protection and rehabilitation of mined bauxite sites.

Your country's input on these subjects would be most welcome, as well as copies or summaries of existing legislation.

./....

Mr. Jean M.H. TIXHON
Office of Environmental & Health Affairs
The World Bank
1818 H Street, N.W.
WASHINGTON, D.C. 20433

U.S.A.

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1978 JUN 30 AM 9-13
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Members of the Committee also agreed to inform the Secretariat on their experience in relation to using the IPAI Environmental Recommendations for Siting and Operation of New Primary Aluminium Industry Facilities, as a checklist under their own conditions, and report any additional factors or processes which they consider should be added (see paragraph 45).

We look forward to hearing from you on these matters, and would be grateful to receive relevant information by August 31, 1978, at the latest.

With renewed thanks for your on-going cooperation and with kind regards,

Yours sincerely,



Léon de ROSEN
Director, Industry & Environment Office

Encl. 1

ANNEX I

List of Documents and Reports Available at the Meeting

1. "Environmental and Health Protection Activities of the International Primary Aluminium Institute 1975 - 1977", IPAI, December 1977.
2. "Environmental Recommendations for Siting and Operation of New Primary Aluminium Industry Facilities", IPAI, December 1977.
3. "Fluoride Emissions Control: Costs for New Aluminium Reduction Plants", IPAI Environmental Committee Report, April 1975.
4. "Survey of Legislation - Fluoride and Other Emissions", IPAI, 1976.
5. "Understanding Occupational Exposure to Fluoride", Journal Of Occupational Medicine Special Issue, January 1977 (volume 19, n° 1).
6. "Aluminium - The Effective Use of Energy", IPAI, A Brief for Energy Conservation.
7. "Aluminium - The Effective Use of Energy, Addendum", IPAI, A Brief for Energy Conservation.
8. "Environmental Developments in Bahrein since the UNEP Committee Meeting", Dr. P.B. COOK, Aluminium Bahrain.
9. "Note sur la Pollution Fluorée des Usines d'electrolyse d'Aluminium en France", April 1978.
10. "Report by Mr. D.C. MENEGOSZ of Aluminium Pechiney", March 6, 1978.
11. "Environmental Pollution Control - Measures undertaken by Volta Aluminium Company Ltd., Ghana".
12. "Environment Protection Activity of the Hungarian Aluminium Industry", Dr. L. FEHER, March 31, 1978.
13. "Environmental Problems of the Japanese Aluminium Industry", Mr. T. HAMADA, April 1978.
14. "Environmental Control with Norwegian Aluminium Smelters", Mr. S. SOLHJELL, March 14, 1978.
15. "Report on Environmental Aspects of the Aluminium Industry in Rumania", Mr. A. KATHREIN.
16. "Environmental Aspects of the Primary Aluminium Industry in the United Kingdom".
17. "VENALUM", Industrial Venezolana de Aluminio C.A.
18. "Environmental Protection Systems", Industria Venezolana de Aluminio C.A.

19. "The U.S. Environmental Protection Agency and the Aluminium Industry", Mr. A. CYWIN, U.S.E.P.A., March 1978.
20. "Bibliography of Recent Australian Research relating to Bauxite Mining".
21. "Current Activities of UNIDO in the Aluminium Industry Field and their Environmental Implications".
22. "Workshop on Case Studies of Aluminium Smelter Construction in Developing Countries, Vienna, Austria, 27-29 June 1977 - Final Report", UNIDO ID/WG.250/18, 26 August 1977 (distribution limited).
23. "Bibliography on Safety and Health of Aluminium Workers", ILO.
24. "Report by the Representative of the IPAI Health Committee to the UNEP Environmental Consultative Committee for the Aluminium Industry on April 11 and 12, 1978", Dr. J.P. COULON.
25. "IPAI Accident Report", IPAI Form 1000.

A N N E X I I

LIST OF MEMBERS PARTICIPATING IN THE FIRST MEETING

BAHRAIN

Dr. P.B. COOK

Aluminium Bahrain
P.O. Box 570
BAHRAIN

CANADA

Mr. Bruce R. EDWARDS

Alcan Smelters & Chemicals Ltd
Box 6090
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Quebec G76 4L2

PEOPLE'S REPUBLIC OF CHINA

Mr. Yen-Kang CHANG

Ingénieur en Chef
Usine d'aluminium de Tchengtchow

Mrs. Jen-Yi CHENG

Ingénieur
Association Chinoise des Métaux

Mr. Chang Fu HAN

Ingénieur
Usine d'aluminium de Tchengtchow

Mrs Lien Lien KUO

(Interpreter)

./.

FRANCE

Mr. D.C. MENEGOS

Chef du Service Antipollution
Aluminium Pechiney
23 bis, rue Balzac
75008 PARIS

Mr. Alain MILHAU

Service de l'Environnement Industriel
Direction de la Prévention des
Pollution et des Nuisances
Ministère de l'Environnement
14, Boulevard du Général Leclerc
92251 NEUILLY SUR SEINE

GHANA

Mr. Leonard OKYERE

Chief Chemist & Supervisor of
Environmental Control
Volta Aluminium Co, Ltd
P.O. Box 625
TEMA

HUNGARY

Dr. Laszlo FEHER

Department of Technical Development
Ministry of Heavy Industry
BUDAPEST V
Markó u. 16

IRAN

Mr. P. ROWNAGHI

Production Manager
Iranian Aluminium Company
P.O. Box 31
ARAK

JAPAN

Mr. T. HAMADA

Manager
Environmental Affairs
Nippon Light Metal Co, Ltd
3-5 Ginza, 7-chome. Chuo-ku
TOKYO

NORWAY

Mr. Svein SOLHJELL

Senior Engineer
 State Pollution Control Authority
 Oslo-Dep.
 OSLO 1

RUMANIA

Mr. Alfred KATHREIN

Ingénieur
 Ministère de l'Industrie Métallurgique
 21, rue Mendelejeev
 BUCAREST

SWITZERLAND

Mr. Steve DAUGHERTY

Swiss Aluminium Ltd
 Feldeggstrasse 4
 Postfach 495
 CH 8034 ZURICH

UNITED KINGDOM

Mr. Richard MARTIN

Alcan (UK) Ltd
 Alcan House
 30 Berkeley Square
 LONDON W1X 6 DP

Mr. McMULLAN

Department of Industry
 Cromwell House
 Dean Stanley Street
 LONDON SW1P 3HY

VENEZUELA

Mr. Salvador Jose BARNERA

Asistente Gerente General

Mrs Maris Jose CAMOUS

Chief Lab. Engineer
 Industria Venezolana de Aluminio
 VENALUM
 Apartado Este 51965
 CARACAS 105

INTERNATIONAL ORGANIZATIONSI.L.O.

Mr. Harry Z. EVAN

Technical Focal Point for the
Environment
P.O. Box 500
1211 GENEVA 22
Switzerland

I.P.A.I.

Mr. Peter MARTYN

Secretary General
New Zealand House, 9th Floor
Haymarket
LONDON SW1Y 4TQ
United Kingdom

Dr. J.P. COULON

Aluminium Pechiney
23 bis, rue Balzac
75008 PARIS

O.E.C.D.

Mr. Jacques DELELIENNE

Administrateur Principal
Division des Structures Industrielles
2, rue André Pascal
75016 PARIS

UNIDO

Mr. P. SZAKAL

Acting Head
Metallurgical Industries Section
P.O. Box 707
1011 VIENNA
Austria

W.H.O.

Dr. H. NORDMAN

Consultant
Environmental Health Criteria
and Standards
1211 GENEVA 27
Switzerland

U.N.E.P.

Mr. Léon de ROSEN

Director
Industry and Environment Office
17, rue Margueritte
75017 PARIS

Mr. John HAINES

Programme Management Officer
Industry & Environment Office

Mr. Maung Nay HTUN

Programme Management Officer
Industry & Environment Office

Mr. Aklilu Habte, EDC

June 16, 1978

James A. Lee, Environmental and Health Affairs

CUBA - Meeting Basic Health Needs

Just a hasty note to say we are interested in the proposal you set forth in your subject memorandum of June 14, namely, this Office would welcome a chance to study the efforts being made by Cuba to meet basic health needs in that country.

cc: Mr. W. Clark, VPE

JALee:on



UNITED NATIONS ENVIRONMENT PROGRAMME
PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT



Télégrammes : UNITERRA, PARIS

Téléphone : 766.16.40
227.45.12

Télex : 650273

RÉF. N° : 2102

INDUSTRY AND ENVIRONMENT OFFICE
DEPARTEMENT INDUSTRIE ET ENVIRONNEMENT

17, rue Marguerite
75017 PARIS - France

S- Environment & Health

June 16, 1978

Dear Jean,

Many thanks for your letter of June 8 and the interesting information on bauxite residues and the rehabilitation of bauxite mines.

We missed you at the meetings of our Environmental Consultative Committees on aluminium and on motor-vehicle.

Do, please, stop, next time you come to Europe. There is much that we should discuss.

With warmest regards,

Yours sincerely,

Léon de ROSEN
Léon de ROSEN

Director, Industry & Environment Office

Jean M. H. TIXHON Esq.
Office of Environmental and
Health Affairs
The World Bank
1818 H. Street, N.W.
WASHINGTON, D.C. 20433
Etats-Unis d'Amérique

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UNITED NATIONS ENVIRONMENT PROGRAMME
PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT



INDUSTRY AND ENVIRONMENT OFFICE
DEPARTEMENT INDUSTRIE ET ENVIRONNEMENT

17, rue Marnet
75017 PARIS - France

June 16, 1978

Télégrammes : UNITERRA, PARIS

Téléphone : 766.16.40

227.42.12

Télex : 820273

Réf. N° : 2102

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Léon de ROSEN
Director, Industry & Environment Office

Jean M. H. TIXHONGES
Office of Environmental and
Health Affairs
The World Bank
1818 H. Street, N.W.
WASHINGTON, D.C. 20433
Etats-Unis d'Amérique

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OEHA Files

June 14, 1978

James A. Lee

Editorial Article - "Malaria: Averting a Deadly Coincidence"
Used June 5, 1978 - THE SUN (Baltimore)

The subject article was submitted to The Sun by Peter Muncie, Information and Public Affairs Department, and was accepted for publication in the June 5 issue.

One June 14, I received in the mail a check for one hundred dollars (\$100) from A.S. Abell Company, publishers of the Sun papers, for the article.

I informed Mr. Muncie of this and he explained the procedure to be followed; namely, to donate the funds to a non-profit or charitable organization. Accordingly, I will donate the \$100 to the Traveler's Health Institute, a non-profit organization devoted to researching travelers' health problems and, in particular, diarrheal diseases.

JALee:on

OFFICIAL FILE COPY

S-

Health

June 14, 1978

Mr. Christopher D.B. Root
Marketing Director
Root Industries, Inc.
427 East Market Street
York, PA. 17405

Dear Mr. Root:

Thank you for your letter of June.8. In reply to the latter paragraph of your letter, I would suggest that you write to the following:

Dr. T. Lapes
Director
Division of Malaria and Parasitic Diseases
World Health Organization
1211 Geneva 27
Switzerland

Sincerely,



Dr. James A. Lee
Director
Office of Environmental and
Health Affairs

on

OFFICIAL FILE COPY

OEHA Files

June 12, 1978

Hernan Reitze

US/AID Workshop on Environmental Affairs

I recently participated (and also lectured on the environmental policies and procedures of the World Bank) in a workshop on environmental investigation sponsored by the United States Agency for International Development (US/AID) from May 21 to June 2, 1978, at Clark University in Worcester, Massachusetts.

The workshop was aimed at enabling AID staff carry out the adequate implementation of environmental considerations according to the US National Environment Policy Act of 1970. It was also intended to enable participants to (1) identify potential detrimental environmental impacts; (2) prepare an initial environmental examination; (3) incorporate environmental considerations into the project planning; and (4) think about ways in which local institutions and local specialists can lend assistance in assessing environmental interactions. Lectures, small group discussions, field trips, films, and reading material were all geared to satisfying these purposes. The agenda for the second week was somewhat modified in order to allow for a more rational utilization of the expertise and experience found around the table (about 27 participants).

I established some very interesting professional contacts and had an invaluable close-up exposure to US/AID's "modus operandi." I found this occasion to be a valuable and worthwhile experience.

Attached you will find some of the materials used during the workshop which could be of general interest. Other publications can be obtained from Mrs. Luke and include the following:

- The Picture of Health, Erik P. Eckholm
- Large Dams and the Environment, Peter H. Freeman
- More Water for Arid Lands, National Academy of Sciences, 1974
- Water, Engineers, Development & Disease in the Tropics, AID, 7/75
- Energy for Rural Development, National Academy of Sciences, 1976
- Resource Sensing from Space: Prospects for Developing Countries, 1977
- Bolivia: A Country Profile, AID, February, 1978
- The Eros Data Center, US Dept. of the Interior Geological Survey
- Dickey-Lincoln School Lakes Draft Environmental Impact Statement, USA Corps of Engineers, New England Division, August 1977
- Workshops in Environmental Investigation, Clark University:
 - Feeder Roads in the Caribbean: A Case Study from Belize, L.Lewis, M.Amundsen, J.Townshend, Document No. 1551.1
 - The Use of Remote Sensing Methods in the Assessment of Environmental Impact, John Townshend, Document No. 1551.7
 - Overview of Physical and Socio-Economic Environmental Situations in North Africa, DJJohnson, P.O'Keefe, Document No. 1551.5
 - Resource Materials and Information Systems for Assessment of Local Environmental Impact, Document No. 1551.6
 - Onchocerciasis Clearance in West Africa with Special Reference to Upper Volta, E.Berry, C.Hays, E.Scott, Document No. 1551.2
 - African Overview, Document No. 1551.3
 - Overview Physical & Socio-Economic Env.Sit. Latin America, No. 1551.4

OFFICIAL FILE COPY

cc: Dr.J.A.Lee

5- Env. + Health

June 12, 1978

Mr. Ole Krogh, Deputy Director
Water Quality Institute
Danish Academy of Technical Sciences
11, Agern Alle
DK-2970 Horsholm
DENMARK

Re: Palm Oil Waste Recovery

Dear Mr. Krogh:

Two days after your visit I received a copy of Mr. S. Sinnappa's study on the treatment of palm oil waste. I send you enclosed herewith a xerox copy of it and I apologize for its quality.

You will see on Table 1, page 8 that oil and grease are between 5000 and 10,000 ppm and protein 3000 ppm. As discussed during our meeting, we would be interested to know the cost of a study by the Water Quality Institute for separating the oil from the waste and possibly also the proteins. The study should consist of a literature search and a few laboratory tests based on your success in recovering oil from fish processing plants.

I thank you for your help and look forward to receiving your proposal.

Sincerely yours,



Jean M.H. Tixhon
Office of Environmental and
Health Affairs

Enclosure

cc: Dr. J. A. Lee, OEHA
Mr. Ro. Overby, OEHA
Mr. R. Goodland, OEHA
Mr. T. Prins, AEP

JTixhon/md

OFFICIAL FILE COPY



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D. C. 20460

S - Environment & Health

June 9, 1978

EPA's Office of Public Awareness is making an effort to improve communications with business and industry organizations throughout the Nation. Overall, our goal is to foster expanded mutual awareness and cooperation.

Enclosed for your benefit are several EPA documents and other publications dealing with business and industry-related environmental issues. In return, we are asking for the following information from you so that we may become better acquainted with your concerns: (1) a list of your environmental officers and committee heads; (2) environmental policy speeches or other public documents given by your officials since January, 1977, and a copy of any publication reflecting your organization's environmental viewpoints and, if your wish; (3) a general appraisal of EPA operations to date. Hopefully, the information you provide will enable us to forward to you information on a timely basis, with respect to your particular opinions and concerns.

Please indicate, also, whether you wish to be placed or continued on our mailing list. The enclosed self-addressed label (no postage required) is for your convenience in replying; please attach it to your own envelope.

We will appreciate any help you can give us in broadening channels of communication with organizations such as yours.

Sincerely,

Philip H. Wisman

Philip H. Wisman
Business-Industry Liaison
Office of Public Awareness



INTRODUCING A NEW MAGAZINE ON THE ENVIRONMENT

I hope the enclosed complimentary copy of the new EPA Journal will be of interest to you and members of your organization.

Throughout the year special issues of the Journal will examine new developments on the environmental front in such critical areas as agriculture, employment, cities, youth, minorities, health, energy and the economy.

A subscription blank is enclosed for your convenience, if you wish to subscribe to this publication on a regular basis.

Faithfully,

A handwritten signature in dark ink, appearing to read "Joan Martin Nicholson". The signature is fluid and cursive, with a large initial "J" and "M".

Joan Martin Nicholson
Director
Office of Public Awareness

Enclosures

Superintendent of Documents
U. S. Government Printing Office
Washington, D. C. 20402

Please begin my one year subscription to EPA Journal
starting with the next issue. Enclosed is my check
or money order for \$10.00 made payable to Superintendent
of Documents.

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Company or Organization _____

Address _____

City _____ State _____ Zip _____

INSTITUT DE LA VIE

PARIS 5^e, le 9 juin 1978
89, Bd Saint-Michel
Tél. : 033.94-86
Secrétariat : 033.60-51

Monsieur le Docteur James LEE
THE WORLD BANK
1818 H. Street N.W.

WASHINGTON D.C. 20433

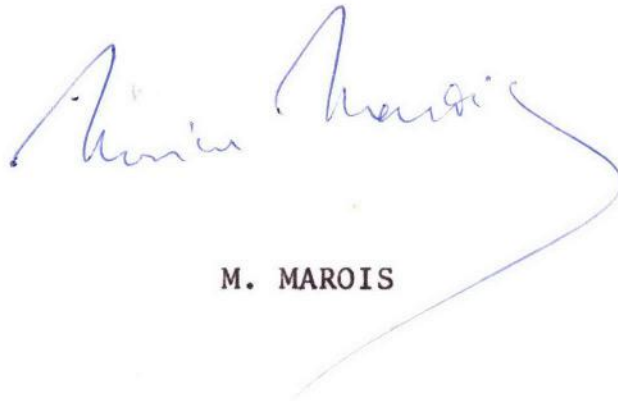
Cher Collègue et Ami,

Merci de grand coeur pour votre précieux télégramme me donnant l'accord de principe pour soutenir l'action de l'INSTITUT DE LA VIE concernant les maladies tropicales et diarrhéiques.

J'apprécie l'honneur que la Banque Mondiale veut bien faire à notre institution et je suis très sensible à la confiance que vous voulez bien personnellement nous témoigner.

Je garderai une étroite relation avec vous pour les développements de notre action.

Veuillez agréer, Cher Collègue et Ami, l'expression de mes sentiments les plus cordiaux.



M. MAROIS

RECEIVED
JUN 13 1978
11 3 18

3 June 1978

Monsieur le Directeur James Lee
THE WORLD BANK
1818 H. Street N.W.
WASHINGTON D.C. 20433

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M. MAROL

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5-Env + Health

ROOT INDUSTRIES, INCORPORATED

427 EAST MARKET STREET, YORK, PA. 17405 - 717 - 843-8008

DIVISIONS

New York Wire Co.
York, Pa.

Ram's Head Wire Co.
York, Pa.

Riverside Metals Co.
Riverside, N. J.

Oxford Mills Co.
Compton, Cal.

SUBSIDIARIES

Root Wire Ltd.
Ontario, Canada

Root International
York, Pa.

ASSOCIATED

Weavex, S.R.L.
Borgo San Lorenzo
(Firenze), Italy

June 8, 1978

Dr. James Lee
World Bank
1818 H Street, Northwest
Washington, D. C. 20433

Dear Dr. Lee:

I refer to your recent article in The Sun, concerning the resurgence of malaria. Particularly to your citing that, "ecologically safe methods to control malaria are urgently needed."

A division of my corporation, the New York Wire Company, has been the world's leading supplier of insect screening since 1892. I am attempting a survey, with the aid of our International Sales Division, to determine how effective insect screening has been as a preventative of malaria. To this end, I would be most grateful if you could direct me to the appropriate sources for attaining such information.

Very Sincerely,

ROOT INDUSTRIES, INC.



Christopher D. B. Root,
Marketing Director

CDBR/sbh

cc: L. D. Root, Jr.
P. M. Gallagher
J. P. Starke

RECEIVED
JUN 15 1978
ENVIRONMENTAL HEALTH

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1978 JUN 12 PM 1:42
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Banco Mundial /

REPRESENTANTE RESIDENTE EN COLOMBIA: Carrera 10 No. 24-55, Piso 17 Bogotá, D.E.
Teléfonos—827564-827584 y 827805 • Cables—INTBAFRAD

Bogotá, June 8, 1978.

Letter No. 91

Mr. Hernan Reitze
Office of Environmental
and Health Affairs
World Bank - E-1044-
1818 H. Street, N.W.
Washington, D.C. 20433 U.S.A.

Dear Mr. Reitze:

In reply to your letter of May 11, 1978, I enclose material on INCITEC and on the II Ibero-American Congress for Environment to take place in Bogotá from September 4 to 8, 1978. As regards the possible Bank's participation, no paper is expected from us. The official language will be Spanish. The registration fee is Col\$3,600.00.

Yours sincerely,



Ian Scott
Resident Representative

encl.

RECEIVED
JUN 11 1978
WORLD BANK
WASHINGTON, D.C.

REPRESENTANTE RESIDENTE EN COLOMBIA: Carrera 10 No. 24-25, Piso 17 Bogotá, D.E.
Teléfonos—827264-827284 y 827802 • Cables—INTBARAD

Banco Mundial

Bogotá, June 8, 1978.


Letter No. 91

Mr. Herman Reitze
Office of Environmental
and Health Affairs
World Bank - E-1044-
1818 H. Street, N.W.
Washington, D.C. 20433 U.S.A.

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Ian Scott
Resident Representative

encl.

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C. E. M. A.

Centro de Estudios del Medio Ambiente

Raimundo Fernández Villaverde, 19

Teléf. 234 85 07

Madrid - 3

JOSE CATALAN LAFUENTE, DIRECTOR DEL CENTRO DE ESTUDIOS DEL
MEDIO AMBIENTE Y DIRECTOR DEL SECRETARIADO PERMANENTE DEL
CONGRESO IBEROAMERICANO DEL MEDIO AMBIENTE

C E R T I F I C A: Que el citado Secretariado ha sido trans
ferido al INCITEC, habiendo sido nombra-
do Presidente del II Congreso Iberoameri-
cano del Medio Ambiente y Director del
Secretariado hasta que se realice el ci-
tado II Congreso el Dr. D. Manuel Queve-
do.

Y para que conste firmo el presente en
Madrid a cinco de Mayo de mil novecientos
setenta y ocho.



CENTRO DE ESTUDIOS
DEL
MEDIO AMBIENTE

Asociación Nacional de Industriales

Bogotá, D.E. Marzo 29 de 1.978

1.

Señor Presidente

Señor Gerente :

Colombia y la ciudad de Bogotá, han sido designadas sede para la realización en el mes de Septiembre del presente año del

II CONGRESO IBERO-AMERICANO DEL MEDIO AMBIENTE.

El Primer Congreso se realizó en Madrid, España, en el año 1975, y asistió en representación de Colombia el doctor Manuel Quevedo, Presidente de INCITEC, y quien es actualmente el Presidente del Comité Organizador de este certamen.

Dada la trascendencia de este II Congreso cuyos objetivos y temas a tratar los encontrará en el folleto que le estamos adjuntando, y además por que la organización esta a cargo del sector privado, la ANDI se ha vinculado a su realización e invita a usted y su empresa a participar y a vincularse a este importante evento, en el que además tomaran parte el sector privado, sector oficial y la comunidad científica de Colombia, de los países Latinoamericanos y de España.

El trabajo que usted desee presentar y las inscripciones la debe enviar directamente a :

INSTITUTO DE INVESTIGACIONES CIENTIFICAS Y TECNICAS
(INCITEC)
CARRERA 19 No. 66-21 - BOGOTA

Posteriormente le enviaremos boletines mensuales informándole sobre el avance de la organización

Atentamente,



FABIO ECHEVERRI CORREA
Presidente

SECCIONAL DE BOGOTA

EDIFICIO INTERNACIONAL CARRERA 13 No. 26-15 PISO 6 TELEFONOS 349620, GERENCIA 812610 - APARTADO 4430, TELEX 044-724 - CABLES "ANDI"
OFICINA CENTRAL MEDELLIN - OFICINAS EN CALI, BARRANQUILLA, MANIZALES, PEREIRA, BUCARAMANGA Y CARTAGENA.

Asociación Nacional de Industriales
Presidencia

Medellín, Marzo 27, 1.978

1-004600

Doctor
Indalecio Liévano Aguirre
Ministro de Relaciones Exteriores
Bogotá

Señor Ministro:

En la primera semana de Septiembre se celebrará en la ciudad de Bogotá el Segundo Congreso Iberoamericano del Medio Ambiente, evento que cuenta con el apoyo institucional de la Asociación Nacional de Industriales.

Debido a que es necesario contar con una participación importante de todos los países iberoamericanos, sería muy conveniente que el Ministerio, a su digno cargo, formulara una invitación muy cordial tanto a las embajadas acreditadas en nuestro país, como a las embajadas de Colombia en otros países, para que promuevan este evento, en el que se analizarán temas fundamentales para todos.

Creo que una comunicación del Señor Ministro que agradezco muy especialmente, constituye un aporte fundamental para el éxito de este Congreso que compromete al país en el estudio de uno de los temas de mayor actualidad que tiene el mundo.

Del Señor Ministro, atentamente,



FABIO ECHEVERRI CORREA

nem/7-82/1-22

CLADIR II

CLADES/INS / 7

**DIRECTORIO DEL
MEDIO AMBIENTE EN
AMERICA LATINA
Y EL CARIBE
1977**

VERSION DEFINITIVA

/125/ FUNDACION INSTITUTO DE INVESTIGACIONES CIENTIFICAS Y TECNICAS (INCITEC)

Director: Dr. Manuel M. Quevedo S.
Carrera 19 N° 66-21, Bogotá
Teléfono: 350315
Apartado postal: 9403

Indole de la
Institución: Privada

Objetivos

Conforme a los estatutos de la Fundación se tiene:

Artículo 4°. La Fundación no tendrá ánimo de lucro y su objetivo principal será promover, realizar investigación básica y aplicada en el país con referencia al estudio de la utilización de los Recursos Naturales Colombianos, para ser utilizados en la Industria y con miras a aportar materias primas no contaminantes, realizar docencia sobre Metodología de la Investigación en todos los campos del saber y específicamente en los campos de aplicación de la Teoría Coligatorial, por lo cual tendrá como actividades principales la financiación de proyectos de investigación y de docencia, y de todas aquellas que le sean afines o tiendan al mismo propósito.

Artículo 5°. Para cumplir su objetivo, podrá adquirir y enajenar bienes de todas clases y a cualquier título, gravarlos o limitarles su dominio, cambiarles su forma, en general, celebrar todos los contratos lícitos con personas naturales o jurídicas y ejecutar todos los actos que guarden relación con los propósitos en que se inspira su objetivo.

Estatutos: Personería Jurídica. Resolución 6535 de Diciembre 19, 1974.

Actividades

- Investigación Científica y Tecnológica
- Protección y Conservación
- Derecho y Legislación
- Consultoría

Areas
Temáticas

- Alimentación y Nutrición
- Ecología
- Flora y Fauna
- Recursos Naturales
- Suelos

Otros Temas

- Eco-Desarrollo
- Eco-Administración

II CONGRESO IBEROAMERICANO DEL MEDIO AMBIENTE

BOGOTA, COLOMBIA 4 AL 8 DE
SEPTIEMBRE DE 1978

BOLETIN No. 1

20 ABR. 1978

El Primer Congreso Iberoamericano del Medio Ambiente tuvo lugar en Madrid, España, del 12 al 18 de octubre de 1975, apoyado institucionalmente por la Asociación Española de lucha contra la Contaminación Ambiental, ASELCA, entidad del Sector Privado. Fue su organizador y presidente el Prof. Dr. José Catalán Lafuente, Director del Centro de Estudios del Medio Ambiente (CEMA), del Consejo Superior de Investigaciones Científicas.

—○—

Este Segundo Congreso, en Colombia, es una iniciativa del Sector Privado, promovido por la Fundación Instituto de Investigaciones Científicas y Técnicas "INCI-TEC". Tiene, el apoyo institucional de la Asociación Nacional de Industriales, ANDI. El Fondo Colombiano de Investigaciones Científicas y Proyectos Específicos, COLCIENCIAS. El Instituto de Investigaciones Tecnológicas, I.I.T. La Dirección de Saneamiento Ambiental del Ministerio de Salud, y el Comité Colombiano del MAB.

—○—

El Secretariado intensifica progresivamente una campaña a fin de promover la asistencia al Congreso de mandos directivos del "Sector Privado," del "Sector Público," de la "Comunidad Científica" y de entidades internacionales, para así, congregar en las sesiones, efectivos Iberoamericanos del más alto nivel de decisión en el

logro de la mejor productividad en torno al tema, indiscutiblemente básico, del influjo de la Política Ambiental en la Política de Desarrollo Económico y Social de la Comunidad Iberoamericana.

—○—

El significado del Congreso es incontestable. Somos 24 países Iberoamericanos con una población cercana a los 500 millones de habitantes. Esta masa humana tie-

ne un influjo en la determinación del ambiente mundial, el que no es posible desconocer. Por ende, las orientaciones que de este foro resulten, más adelante, tendrán gran peso en las deliberaciones y decisiones mundiales. Señor Directivo, Presidente o Gerente de Empresa, asista a éste certamen de su experiencia, criterio y decisión depende, el porvenir ambiental de 500 millones de personas.

NUEVO PLAZO PARA INSCRIPCIONES. La demora en la impresión del folleto de información Preliminar del Congreso, determinó que tardíamente fuese entregado al correo, llegando así con 2 meses de retraso a los destinatarios. Ello redujo notoriamente el tiempo para que los participantes envíen, oportunamente, la presentación de títulos de comunicaciones y efectúen las respectivas inscripciones; en virtud de esto se han ampliado los plazos a saber:

- PARA INSCRIPCIONES; FECHA ABIERTA SIN RECARGO ALGUNO.
- PARA ENVIAR TITULOS DE COMUNICACIONES, HASTA EL 1º DE AGOSTO DE 1978.

REMITE: I N C I T E C

SECRETARIADO
II CONGRESO IBEROAMERICANO
DEL MEDIO AMBIENTE

CARRERA 19 N° 66-21
BOGOTA—COLOMBIA

AVIANCA

TRANSPORTADORA OFICIAL



Wagons-lits

AGENCIA OFICIAL DE
VIAJES Y ALOJAMIENTOS

SEÑOR PARTICIPANTE

Sírvase diligenciar el formulario de inscripción, y acompañarlo con el cheque respectivo a nombre de INCITEC, cuyo Nit es: 60 042 994, por correo recomendado a la siguiente dirección:

Carrera 19 N° 66-21. Bogotá - Colombia.

Mil gracias

El tema que hasta hoy despierta mayor interés, es el de las implicaciones financieras y económicas de la Legislación Ambiental. Todo indica que políticos, economistas y juristas convergen en éste punto. Si estos problemas son de su interés, inscribese en el grupo de trabajo de la Sección I. Política Ambiental (ver folleto de Información Preliminar).

—○—

ANDI, Asociación Nacional de Industriales de Colombia, está vinculada a la organización del Congreso Iberoamericano del Medio Ambiente en razón de que ya desde el año de 1972, viene trabajando en la tarea de dar soluciones a la Contaminación Ambiental. Para este propósito cuenta con comités especializados formados por industriales y empresarios de las ciudades de Medellín y Cali, en la actualidad se está organizando el comité de Bogotá.

—○—

COLCIENCIAS como entidad ejecutora de la política científica y tecnológica de Colombia y una de las coordinadoras del II Congreso Iberoamericano del Medio Ambiente, invita a la Comunidad Científica de Iberoamérica a intercambiar los avances científicos y tecnológicos, encaminados a solucionar problemas ambientales; en este sentido, ha enviado comunicaciones a entidades análogas.

—○—

INCITEC, es una fundación privada sin ánimo de lucro, que trabaja en Biología de suelos, elaboración de modelos de Eco-Desarrollo, Prospectiva y Administración Ambiental. Es miembro del Comité Colombiano del Hombre y la Biosfera. MAB. Tiene a su cargo la Presidencia del Secretariado del Congreso.

—○—

EL INSTITUTO DE INVESTIGACIONES TECNOLÓGICAS, I.I.T., trabaja en Colombia en el campo de la aplicación práctica de innovaciones tecnológicas compatibles con la calidad ambiental. Como entidad participante en la promoción de éste Congreso, invita a Instituciones Iberoamericanas análogas a participar en éste evento.

—○—

EL INSTITUTO DE RECURSOS NATURALES INDERENA, entidad gubernamental gestora y realizadora de la tarea para la promulgación del Código Nacional Colombiano de los Recursos Naturales Renovables y

Protección al Medio Ambiente, en coordinación con COLCIENCIAS, sede del Sistema Nacional de Información, SNI, instaura, organizativamente en el país, el Sistema Nacional de Información Ambiental y de Recursos Naturales Renovables.

—○—

LA DIRECCION DE SANEAMIENTO AMBIENTAL (Ministerio de Salud), quien trabaja en la expedición de la "Ley Sanitaria", instrumento jurídico que complementará el cuadro legislativo nacional en materias ambientales, exhorta a los colegas de la salud pública, ingenieros sanitarios y especialistas en derecho ambiental a diligenciar su inscripción en este Congreso.

FIRMAS PARTICIPANTES QUE EXHIBIRAN EQUIPOS

—○—

ZEIZZ (Alemania Occidental). Equipos para Control de la Contaminación Ambiental: Espectrocromatógrafo de capa delgada, Fotometría de Monoabsorción Atómica, Analizador de gases (polución), Electrofotómetro (Análisis de agua).

—○—

APROCIN LTDA., distribuidores exclusivos para Colombia de Fisher Cientific Company.

COLABORACION DE FIRMAS

—○—

El Secretariado agradece la colaboración de CICO-LAC, quien a auspiciado la provisión de carpetas y la atención de un stand para la distribución de sus productos alimenticios a los congresistas.

—○—

El Profesor Doctor Manuel M. Quevedo en su carácter de Presidente del Congreso, a partir del 15 de junio próximo, realizará un viaje por los países Iberoamericanos y de Europa con el propósito de establecer nexos con personas e instituciones a fin de concretar su participación en las sesiones del Congreso.

Quienes estén interesados en entrevistarlos, favor dirigirse al Secretario del Congreso, Ingeniero Juan Carranza, en la sede del Secretariado. INCITEC. Carrera 19 N° 66-21. Teléfono: 2 35 03 15. Bogotá, Colombia.

II CONGRESO IBEROAMERICANO DEL MEDIO AMBIENTE

BOGOTA, COLOMBIA 4 AL 8 DE
SEPTIEMBRE DE 1978



BOLETIN No. 2

Mayo 20 de 1978

AMPLIACION
DE FECHAS

- PARA INSCRIPCIONES: FECHA ABIERTA
- PARA ENVIAR TITULOS DE COMUNICACIONES:
HASTA EL 1º DE AGOSTO DE 1978

Aun cuando la fecha para el cierre de inscripciones es abierta, las tareas del Secretariado del Congreso se facilitarán más si su inscripción llega antes del 1º de agosto de este año; se agradece su colaboración en este sentido.

El Fondo Colombiano de Investigaciones Científicas COL-CIENCIAS, promueve la coordinación de programas de investigación del sector oficial entre sí y los de éste con el sector privados.

El Secretariado del Congreso manifiesta sus agradecimientos al Ministerio de Relaciones Exteriores de Colombia por la importante colaboración que, por intermedio de la Sub-Secretaría de Organismos y Conferencias Internacionales, ha recibido en la promoción mundial de este evento.

El Comité MAB Colombia está conformado por un conjunto interdisciplinario representativo de entidades públicas y privadas cuyas actividades están relacionadas con el Medio Ambiente.

La efectividad en la prevención y solución de problemas ambientales, se deriva fundamentalmente del grado de información, asimilación y comprensión que, de tales asuntos, alcancen los estratos directivos de una nación.

Señores Directivos del sector privado, del sector público, de la comunidad científica y de entidades internacionales, no deleguen su participación enviando al Congreso solamente a quienes, no obstante de caracterizarse por magníficas calidades científicas, técnicas o profesionales, no pertenecen al estrato decisonal.

Inscríbase en los grupos de trabajo de Política Ambiental y de Administración Ambiental.

Con el objetivo de ordenar oportunamente, en cantidad suficiente para el número de participantes, la impresión de las memorias y documentos del Congreso, favor confirmar lo más pronto posible su inscripción.

Se recuerda a los interesados que la fecha para la inscripción de trabajos se ha ampliado hasta el día 1º de agosto de 1978.

En la página 3, de este boletín, encontrará usted, la descripción del Programa Oficial del Congreso.

Cumple informar que se han incorporado al Congreso, dando su apoyo institucional, las siguientes entidades:

- Consejo Colombiano de Seguridad.
- Universidad EAFIT de Medellín.
- Fundación América Latina 2001.

REMITE: I N C I T E C

SECRETARIADO
II CONGRESO IBEROAMERICANO
DEL MEDIO AMBIENTE

CARRERA 19 N° 66-21
BOGOTA—COLOMBIA

AVIANCA

TRANSPORTADORA OFICIAL



Wagons-lits

AGENCIA OFICIAL DE
VIAJES Y ALOJAMIENTOS

ALGUNAS COMUNICACIONES LIBRES INSCRITAS

Dentro de las varias comunicaciones libres que se han inscrito, valga nombrar las siguientes:

- Plan maestro de la Isla Victoria.- J. Meyer. Jefe Planeamiento. Buenos Aires. Argentina.
- Participación Iberoamericana en el problema del ozono estratosférico.- H. Vera. Instituto de Investigaciones Físicas. La Paz. Bolivia.
- Residuos producido en el beneficio del café. (Utilización e incidencia sobre los recursos hídricos).- L. F. Maya. Jefe Sección de Aguas. Armenia. Colombia.
- Estudios, reglamento y control de los recursos hídricos. Cuenca del Alto Cauca.- R. Arias. Jefe de Control de la Contaminación C.V.C. Cali. Colombia.
- Programa experimental de Educación Ambiental, desarrollo y protección del Medio Ambiente. Universidad Nacional de Heredia. Costa Rica.
- La radiación Ultravioleta del sol y su influencia en el Medio Ambiente.- D. Díez. Jefe Laboratorio Junta de Energía Nuclear. Madrid. España.
- Nuevos desarrollos en el tratamiento técnico de aguas en Europa y su aplicación en Latinoamérica. Profesor Koot. Universidad de Delft. Holanda (Países Bajos).
- Determinación de Cromo en pelo y orina de una población no expuesta ocupacionalmente en el Estado de México.- A. Báez y Rosas. Centro de Ciencias de la atmósfera U.N.A.M. México.
- Acerca del Derecho Ambiental Iberoamericano.- F. J. Iturraque. Asociación Defensa contra la Contaminación Ambiental. Lima. Perú.

—O—

FIRMAS PARTICIPANTES QUE EXHIBIRAN EQUIPOS

ZEISS (Alemania Occidental), presentará equipos, analizadores de gases, utilizables en el control de la polución ambiental. Los visitantes tendrán también la oportunidad de apreciar los equipos de electrofotometría para análisis de agua.

APROCIN LTDA. Distribuidores exclusivos para Colombia, de Fisher Cientific Company. Suministra equipos para Laboratorio de Control de calidad y Laboratorios Físicos Químicos, para el Control de la Contaminación Ambiental.

Dirección: Carrera 5ª N° 16-14, Bogotá. Tels. 2 41 82 79 y 2 34 55 47.

DEGREMONT COLOMBIA.- Presentará un stand acerca de información técnica sobre control y recuperación de aguas.

—O—

FIRMAS BENEFACTORAS

Es del caso señalar que se han vinculado como benefactoras de este certamen Iberoamericano del Medio Ambiente, las siguientes firmas colombianas:

- ACERIAS PAZ DEL RIO, S. A.
- AVIANCA
- Compañía Colombiana de Productos Lácteos. CICOLAC.
- ETERNIT COLOMBIANA S. A.
- ENKA DE COLOMBIA S. A.
- PROPAL. Productora de Papel S. A.
- WAGONS-LITS.

NOTICIAS VARIAS

A los interesados, se informa que la agencia oficial de viajes y alojamientos Wagons-Lits Turismo organiza varios tours a las ciudades de Cartagena, Santa Marta y San Agustín durante los cuales se podrán conocer monumentos importantes de arquitectura colonial y culturas precolombinas como la Tayrona y la Agustiniense. Además, de los aspectos turísticos mencionados, se ofrecen opciones para admirar en estas regiones Parques Nacionales Naturales, ecosistemas como la Isla de Salamanca, y, para visitar laboratorios de investigaciones Marinas como los de Punta de Betín y el Centro de Investigaciones Pesqueras.

El Secretariado del Congreso manifiesta sus reconocimientos a PROPAL de Colombia, quien ha hecho posibles la publicación de este Boletín mediante la donación del papel requerido.

Señor Empresario: Una de las maneras de colaborar en el auspicio de este Congreso, es la de inscribir al personal científico, técnico y administrativo de su entidad, a fin de que asistan y actúen en las deliberaciones y en los grupos de trabajo.

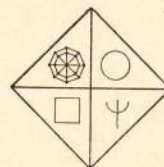
El Consejo Colombiano de Seguridad, mediante comunicación N° 28775-G, ha invitado a 260 de sus firmas afiliadas a participar efectivamente en el Congreso.

El Instituto de Investigaciones Tecnológicas I.I.T. Dentro de su misión genral de promover el mejoramiento tecnológico en Colombia, realiza trabajos en relación con la Preservación del Medio Ambiente, especialmente en contaminación de aguas marinas y en residuos continentales de pesticidas, en productos alimenticios.

El secretariado informa que está a su alcance gestionar la consecución de algunos auxilios de fondos para pasajes y estipendios para asistir al Congreso. Los aspirantes a este beneficio deben dirigirse antes del 15 de julio del año en curso al Secretariado del Congreso, Comité de Ponencias y Trabajos, el cual previo estudio de las solicitudes les dará curso para seleccionar los candidatos a ser presentados ante la entidad patrocinadora.

Las solicitudes en este sentido vendrán acompañadas de: 1.- Título y resumen del escrito fundamental. 2.- Nombre, dirección y profesión del autor. 3.- Curriculum Vitae. 4.- Nombre y dirección de la entidad donde colabora, indicando el desempeño que en ella cumple. Se entiende que los auxilios por este concepto no incluyen la cuota de inscripción, la cual es por cuenta del interesado.

EMBLEMA DEL CONGRESO







Simbólicamente este emblema es significativo con respecto del problema ambiental cuya gran generalidad, es hoy por hoy, reseñable de la siguiente manera:

1. Acúmulo en las capas superiores de la atmósfera terrestre, de masas gaseosas implicantes de modificaciones térmicas, todo ello derivado de la acción humana, lo cual amenaza, por modificaciones de la composición de la energía radiante, transformar la calidad de la radiación solar que llega a la tierra. *Alteración del Fuego.*
2. Descargas en el aire de gases, humos y nubes de partículas que modifican propiedades, de este poder ser utilizado saludablemente por organismos vivos, *Alteración del Aire.*
3. Incorporación de sustancias en los suelos, perturbadoras de calidades ecológicas de éstos, concernientes a la producción perma-

nente renovada de alimentos vegetales y animales para consumo humano, y para la producción de materias primas vegetales, *Alteración de la Tierra*.

4. Contaminación de aguas continentales y marinas con sustancias que las tornan inapropiadas para la persistencia de cualquier forma de vida, *Alteración del Agua*.

Dentro de este estado de cosas, es apropiado decir que hoy los humanos atentamos contra aquello que, siguiendo la tradición heraclítica, se suele denominar los cuatro elementos: FUEGO, AIRE, TIERRA, AGUA, y por ende es, además, explicable que una vez consultada la simbología antigua (*) se haya diseñado la divisa del Congreso conforme al siguiente simbolismo:

- Dos octógonos concéntricos dentados, , son el símbolo geométrico del FUEGO.
- El círculo, , sin centro marcado es el símbolo geométrico del AIRE.
- El cuadrado, , es el símbolo geométrico de la TIERRA.
- El tridente, , es el símbolo geométrico del AGUA.

La divisa así conformada, no sólo ha de servir como simple distintivo de este II Congreso Iberoamericano del Medio Ambiente, sino que, como emblema, sea ideografía que conduzca a reflexionar acerca del contenido explícito e implícito en los siguientes arreglos de algunos fragmentos de Heráclito (Siglo VI antes de J. C.) (**), (***).

Fragm. 30 "Este cosmos es uno mismo para todos los seres... Siempre ha sido y será fuego eternamente viviente".

Fragm. 90 "Del fuego son cambio todas las cosas, y el fuego es cambio de todas...".

Fragm. 31 "Transformaciones del fuego son: primero el mar, luego, del mar la mitad tierra y la mitad vapor inflamado...".

Fragm. 36 "Para las almas es muerte convertirse en agua, para el agua, en cambio, es muerte convertirse en tierra, pero de la tierra nace el agua y del agua el alma".

(*) J. E. Cirlot. Diccionario de Símbolos. Editorial Labor. Barcelona, 1969.
B. Russell. La Sabiduría de Occidente, pág. 79, Editorial Aguilar. Madrid, 1964.

(**) Heráclito. Fragmentos. Traducción del griego, exposición y comentarios de Luis Farre. Págs. 130, 128, 161. Aguilar. Buenos Aires, 1963.

(***) R. Mondolfo. Heráclito. Textos y Problemas de su interpretación, págs. 34, 35, 41. Siglo XXI Editores, México. 1966.

* * *

DESCRIPCION DEL PROGRAMA OFICIAL DEL II CONGRESO IBEROAMERICANO DE MEDIO AMBIENTE

I

OBJETIVO DEL CONGRESO

Como la gestión (políticas), la organización (estructuras) y la administración (ejecución) de la sociedad, tradicionalmente particionada (sector público, sector privado), carentes de articulación efectiva entre sus diferentes órganos, encuentra en todos los países grandes dificultades para evitar y resolver problemas de alteración del ambiente.

Este Congreso tiene como objetivo propiciar un encuentro de los sectores, privado y público, comunidad científica y organismos internacionales Iberoamericanos, a fin de concretar rumbos, sugerencias y recomendaciones acerca de las nuevas modalidades de estructura y acción de la sociedad en cuanto a:

- 1 — Formulaciones políticas racionales y vigorosas.
- 2 — Instrumentos jurídicos apropiados y convenientes.
- 3 — Adecuación de conceptos y de mecanismos financieros, y

Identificación e instrumentación de los deberes y roles conjuntos que han de cumplir los grandes sectores productivos de la sociedad: el sector privado, el sector público y la comunidad científica.

II

CAMPOS DE INTERES Y PARTICIPANTES

Este II Congreso tiene como campo concreto de interés el de contribuir efectivamente a encontrar respuesta a interrogantes como:

1. ¿Qué piensan, qué hacen y qué deben hacer conjuntamente: el Sector Productivo Privado, el Sector Productivo Público y la Comunidad Científica y las Entidades Internacionales vinculadas a Iberoamérica, acerca de la prevención y solución de problemas ambientales?
2. ¿Cuáles son, en el mundo Iberoamericano, las implicaciones, efectos y consecuencias de las Políticas Ambientales, en los planes de Desarrollo Económico y Social?
3. ¿Cuáles son, en lo conceptual y en la práctica, las implicaciones que los modelos mundiales de Desarrollo, como el del Club de Roma y el de Bariloche, tienen o tendrán en los modelos de Desarrollo de las Naciones Iberoamericanas?
4. ¿Cuáles son los factores económicos y sociales que mayor influjo tienen en la contaminación y alteración del ambiente en los países Iberoamericanos, y cuáles son las opciones, más plausibles, de modelos financieros y mecanismos sociales para solventar los costos de la aplicación de los mandatos de la legislación en la prevención y solución de problemas ambientales en los países Iberoamericanos?
5. ¿Cómo salvar el peligro de soluciones ambientales, por exceso o defecto, dependientes más de actitudes ideales y no de realidades, a fin de evitar efectos y consecuencias económicas principalmente derivados de la aplicación de soluciones a problemas de ambiente ocasionados por transporte motorizado, basuras, desechos, desperdicios, usos de herbicidas y plaguicidas en la producción agropecuaria?
6. ¿Cuáles son los avances científicos y técnicos (ocurridos desde 1975 a 1978, para descubrir, evitar y corregir la contaminación y las alteraciones ambientales) utilizables en las formas económicas de producción, uso y reposición de bienes y servicios en los países Iberoamericanos?

Participantes

Participarán en el Congreso, representantes de los sectores público y privado productivos y la comunidad científica y de las organizaciones internacionales interesadas en problemas ambientales.

III

TEMARIOS

Los escritos fundamentales (ponencias) se han de referir a uno o a varios de los puntos temáticos que se indican en este apartado, y deben llegar a proponer recomendaciones concretas, las que serán remitidas, durante las sesiones del Congreso, a los grupos de trabajo para su discusión.

Temario 1.

Políticas y modelos de Desarrollo Económico y Administración Ambiental. (Estrategias de Desarrollo Industrial y solución de problemas ambientales.

Temario 2.

Legislación ambiental comparada y modelos fiscales y financieros en la solución de problemas ambientales.

Temario 3.

Producción agropecuaria de materias primas y alimentos compatible con la solución de problemas ambientales.

Temario 4.

Recursos técnicos humanos necesarios para la Administración Ambiental.

Temario 5.

Comparación de modelos de administración ambiental, salud pública y Recursos Naturales Renovables.

Temario 6.

Características y usos de los sistemas de información ambiental, en los países Iberoamericanos.

IV

ORGANIZACION

Las sesiones del Congreso tendrán lugar del 4 al 8 de septiembre de 1978, en el Hotel Tequendama Intercontinental, Bogotá-Colombia.

Tres son las secciones previstas para la inscripción de participantes a saber:

Sección I - Política Ambiental

Constituida por tres grupos de trabajo:

1. Grupo de Trabajo Sector Productivo Privado.
2. Grupo de Trabajo Sector Productivo Público.
3. Grupo de Trabajo Comunidad Científica.

los cuales se ocuparán de opciones de políticas, organización y administración ambientales en los países Iberoamericanos con respecto de los objetivos, intereses y temas planteados.

Sección II - Presentación y lectura de comunicaciones libres.

Los temas de esta Sección se agrupan en los siguientes cinco apartes:

1. Aire y radiaciones.
2. Agua.
3. Residuos sólidos industriales y domésticos.
4. Protección de la naturaleza.
5. Ordenación de territorio y actividades humanas.

Sección III - Paneles Técnicos.

Esta Sección se ocupará de:

1. Formación de especialistas.
2. Investigación.
3. Legislación ambiental y,
4. Discusión y aprobación de los Reglamentos del Secretariado del Congreso.

V

CALENDARIO Y HORARIOS

Los eventos del Congreso tendrán lugar en el Hotel Tequendama Intercontinental de Bogotá (Salón Rojo, Salón Bolívar, Salón Esmeralda).

Lunes 4 de septiembre:

09:00 - 18:00 Salón Bolívar.

Registro.

11:00 - 13:00 Salón Rojo.

Instalación del Congreso por el Excelentísimo señor Presidente de la República de Colombia.

15:30 - 18:30 Salón Rojo.

Conferencias magistrales a cargo de directivos Iberoamericanos.

18:30 - 19:30 Salón Esmeralda (ver horario en la página).
Inauguración de la exhibición de instrumentos, equipos y catálogos de firmas Constructoras, Asesoras, Consultoras y de Instituciones, relacionadas con el Control de la Contaminación Ambiental.

20:00 - 21:30 Salón Rojo.

Cocktail de bienvenida.

Martes 5 de septiembre:

09:00 - 13:00 Salón Rojo.

Sesión Plenaria. Temario 1.

Presentación de comunicaciones sobre el Temario 1: Políticas y modelos de desarrollo económico y administración ambiental.

Sesión Plenaria. Temario 3.

Presentación de comunicaciones sobre el Temario 3: Producción agropecuaria, de alimentos y materias primas, compatible con la prevención y solución de problemas ambientales.

10:45 - 11:00 Café y Refrescos.

15:00 - 17:00 SALON I.

Grupos de trabajo sobre las exposiciones matinales acerca del temario 1.

SALON II.

Grupos de trabajo sobre las exposiciones matinales acerca del temario 3.

17:15 - 17:30 Café y Refrescos.

17:30 - 19:00 Salón Rojo. Hotel Tequendama.

Presentación y lectura de comunicaciones libres.

Miércoles 6 de septiembre:

09:00 - 13:00 Salón Rojo.

Sesión Plenaria. Temario 2.

Presentación de comunicaciones sobre el Temario 2: Legislación Ambiental y modelos fiscales y ambientales.

Sesión Plenaria. Temario 5.

Presentación de comunicaciones sobre el Temario 5: Comparación y modelos de administración ambiental, salud pública y recursos naturales renovables.

10:45 - 11:00 Café y refrescos.

15:00 - 17:00 SALON I.

Grupos de trabajo sobre las exposiciones matinales del Temario 2.

SALON II.

Grupos de trabajo sobre las exposiciones matinales del Temario 5.

17:00 - 18:00 SALON III.

Reunión de comisiones relatoras para preparar conclusiones y recomendaciones. Temario 1.

SALON IV.

Reunión de comisiones relatoras para preparar conclusiones y recomendaciones. Temario 3.

17:30 - 19:00 Salón Rojo.

Presentación y lectura de comunicaciones libres.

20:30 Actos Culturales.

Jueves 7 de septiembre:

09:00 - 13:00 Salón Rojo.

Sesión Plenaria. Temario 4.

Presentación de comunicaciones sobre el Temario 4: Recursos Técnicos humanos necesarios para la administración ambiental.

Sesión Plenaria. Temario 6.

Presentación de comunicaciones sobre el Temario 6: Características y usos de los sistemas de información ambiental en los países Iberoamericanos.

10:45 - 11:00 Café y refrescos.

15:00 - 17:00 SALON I.

Grupos de trabajo sobre las exposiciones matinales del Temario 4.

SALON II.

Grupos de trabajo sobre las exposiciones matinales del Temario 6.

17:00 - 18:00 SALON III.

Reunión de comisiones relatoras para preparar conclusiones y recomendaciones. Temario 2.

SALON IV.

Reunión de comisiones relatoras para preparar conclusiones y recomendaciones. Temario 5.

17:30 - 19:00 Salón Rojo.

Presentación y lectura de comunicaciones libres.

Viernes 8 de septiembre:

8:00 - 9:30 SALON I.

Reunión de comisiones relatoras para preparar conclusiones y recomendaciones sobre el Temario 4.

SALON II.

Reunión de comisiones relatoras para preparar conclusiones y recomendaciones sobre el Temario 6.

SALON III.

Reunión de los grupos temáticos para la revisión y aprobación de las conclusiones y recomendaciones.

10:30 - 11:30 Salón Rojo.

Reunión Plenaria del Congreso y Clausura Oficial.

11:30 - 18:00 Tarde Libre.

19:00 - 21:00 Salón Rojo.

Cocktail de Clausura.

HORARIO DEL SALON DE EXHIBICION

Salón Esmeralda - Hotel Tequedama.

Lunes 4 de septiembre:

Inauguración 17:30 - 20:00.

Martes 5 de septiembre:

09:00 - 13:00.

15:00 - 20:00.

Miércoles 6 de septiembre:

09:00 - 13:00.

15:00 - 20:00.

Jueves 7 de septiembre:

09:00 - 13:00.

15:00 - 20:00.

Viernes 8 de septiembre:

09:00 - 13:00.

15:00 - 20:00.

Sábado 9 de septiembre:

09:00 - 13:00.

VI

INFORMACIONES COMPLEMENTARIAS

FECHAS LIMITES

Para el envío de títulos de comunicaciones Agosto 1º 1978
Para inscripciones al Congreso Fecha abierta

CUOTA DE INSCRIPCION

Delegados	US\$ 100.00
Acompañantes	US\$ 30.00

LA CUOTA DE INSCRIPCION AL CONGRESO DA DERECHO A:

- Recibimiento, asistencia y traslado desde el aeropuerto "Eldorado" de Bogotá, hasta el hotel y viceversa.
- Tarjetas de invitación para:
 - Solemne Inauguración.
 - Cocktail de bienvenida.

Acto Cultural.

Cocktail y ceremonia de clausura.

PROGRAMA PARA LAS DAMAS Y ACOMPAÑANTES:

- La cuota de inscripción da derecho a asistir a todos los actos mencionados en el párrafo anterior.
- En horarios adecuados visitarán la ciudad, industrias artesanales, la Catedral de Sal de Zipaquirá, Centros Comerciales; además concurrirán a los eventos sociales del Congreso.

INFORMACION GENERAL:

El Secretariado del Congreso tiene su sede en:

INCITEC

Carera 19 N° 66-21

Bogotá, Colombia

Teléfono: 2 35 03 15

Hotel sede de las Sesiones del Congreso:

HOTEL TEQUENDAMA INTERCONTINENTAL

Carrera 10ª N° 26-21

Bogotá, Colombia

Teléfonos: 2 82 30 66

2 82 90 66

NOMBRAMIENTOS OFICIALES:

Línea Aérea Transportadora

AVIANCA

Agencia de Viajes y Turismo

WAGONS|LITS|
COOK

WAGONS|LITS|COOK (Bogotá)

Departamento de Congresos

Carrera 5ª N° 15-91 - Oficina 401

Bogotá, D. E.

Colombia

WAGONS|LITS|COOK (Medellín)

Centro Coltejer Local 108

Teléfonos: 31 83 12 ó 31 83 32

Medellín, Antioquia

Colombia

WAGONS|LITS|COOK (Cali)

Carrera 4ª N° 12-41

Centro Seguros Bolívar, Local 204

Teléfono: 89 41 51

Cali, Valle

Colombia

NOTA:

Tanto las inscripciones como las reservas hoteleras y sus respectivos pagos, se deben enviar directamente a WAGONS|LITS|COOK (Bogotá), así:

- Cheques por concepto de inscripciones girados a nombre de INCITEC (Nit. 60 042 994).
- Cheques por concepto de reservas hoteleras, girados a nombre de WAGONS|LITS|COOK.

INFORMACION SOBRE EL PROGRAMA TURISTICO QUE OFRECE WAGONS|LITS|COOK

CARTAGENA

3 Noches - 4 Días

Día 1º

Llegada a Cartagena, recepción en el aeropuerto, asistencia y traslado al hotel.

Tarde libre para disfrutar de las playas.

Día 2

Desayuno en el hotel.

90:30 - Visita a la ciudad amurallada, construída por los espa-
ñoles para defender los tesoros y joyas que guardaban en la
ciudad, sin duda una de las más bellas de América.

Tarde libre para actividades personales y para disfrutar de las
playas.

Día 3

Desayuno en el hotel.

09:00 - Visita al interesante Laboratorio Marino del Inderena.
Tarde libre para disfrutar de las playas.

Día 4

Desayuno en el hotel.

PRECIOS NETOS POR PERSONA

(Sin incluir el tiquete aéreo).

	Hotel de Lujo (Capilla del Mar)	Hotel Primera Clase (Dorado)
(Para dos personas)		
En habitación sencilla	US\$ 151.70	US\$ 110.30
En habitación doble	US\$ 127.40	US\$ 92.90
(Para 15 ó más personas)		
En habitación sencilla	US\$ 140.70	US\$ 99.30
En habitación doble	US\$ 116.40	US\$ 81.90
En habitación triple	US\$ 104.40	US\$ 75.90

SANTA MARTA

4 Días - 3 Noches

Día 1º

Llegada a Santa Marta, recepción en el aeropuerto, asistencia y
traslado al hotel.

Tarde, visita a la ciudad (3½ Hrs.).

Día 2

Desayuno en el hotel.

09:30 - Visita al famoso Laboratorio de Investigaciones Marinas
de Punta Betín.

Tarde libre para disfrutar de las playas.

Día 3

Desayuno en el hotel.

09:30 - Excursión a las playas de Cañaverales y Parque Tayrona,
único en el mundo. Su parque con la mayor variedad de aves y
los restos de una Civilización Precolombina, considerada como
uno de los vestigios antiguos más importantes.

Día 4

Desayuno en el hotel.

Traslado al aeropuerto para tomar el vuelo con destino a...

PRECIOS NETOS POR PERSONA

(Sin incluir el tiquete aéreo).

	Hotel de Lujo (Irotama)	Hotel Primera Clase (La Sierra)
(Para dos personas)		
En habitación sencilla	US\$ 133.95	US\$ 119.85
En habitación doble	US\$ 111.45	US\$ 101.70
(Para 15 ó más personas)		
En habitación sencilla	US\$ 111.25	US\$ 90.10
En habitación doble	US\$ 88.75	US\$ 74.20
En habitación triple	US\$ 80.95	US\$ 68.95

SAN AGUSTIN

4 Días - 3 Noches

Día 1º

11:00 - Traslado al aeropuerto para tomar el vuelo AP-220 con
destino Neiva.

13:45 - Llegada a Neiva y traslado a la "Hostería Matamun-
do" donde será servido el almuerzo.

En la tarde traslado en Auto-Pullman a Pitalito (3½ Hrs.
aprox.). Llegada a Pitalito y traslado al Hotel Timanco.

Cena y alojamiento en el hotel.

Día 2

Desayuno en el hotel.

Visita al Parque Arqueológico, una de las principales zonas en
San Agustín, donde actualmente se encuentran muchas de las
estatuas que hasta ahora han sido descubiertas. Podrán observar
la Fuente de Lavapatas, el monumento tal vez más importante
de la Cultura Agustiniiana, consiste en una maza indecifrable de
canales decorada con figuras, cabezas, serpientes, etc.

Almuerzo en la "Hospedería Osoguaico".

En la tarde regreso a Pitalito. Cena y alojamiento en el hotel.

Día 3

Desayuno en el hotel.

Visita al "Alto de Los Idolos", el segundo en importancia de la
Cultura Agustiniiana, el cual está situado en San José de Isnos a
18 millas de San Agustín, en este sitio se encuentra una serie de
tumbas.

Almuerzo y cena en el hotel. Alojamiento.

Día 4

Desayuno en el hotel.

07:30 - Traslado al aeropuerto de Neiva en auto-pullman.

12:30 - Llegada a Neiva y traslado a la "Hospedería Mata-
mundo" donde será servido el almuerzo.

15:00 - Traslado al aeropuerto para tomar el vuelo AP-221 con
destino Bogotá.

16:45 - Llegada a Bogotá, asistencia en el aeropuerto y traslado
al hotel.

PRECIOS NETOS POR PERSONA

(Sin incluir el tiquete aéreo).

En habitación sencilla	US\$ 302.55
En habitación doble	US\$ 295.05
(Para 15 ó más personas)	..
En habitación sencilla	US\$ 145.75
En habitación doble	US\$ 138.25
En habitación triple	US\$ 131.05

CUADRO RESUMEN DEL PROGRAMA DEL CONGRESO

Lunes 4	Martes 5	Miércoles 6	Jueves 7	Viernes 8
<p>09:00 - 18:00 Salón Bolívar</p> <p>Registro.</p> <p>11:00 - 13:00 Salón Rojo</p> <p>Instalación del Congreso por el Excelentísimo señor Presidente de la República de Colombia.</p>	<p>09:00 - 13:00 Salón Rojo</p> <p>Sesión Plenaria. Temario 1. Sesión Plenaria. Temario 3.</p> <p>10:45 - 11:00 Café y refrescos.</p>	<p>09:00 - 13:00 Salón Rojo</p> <p>Sesión Plenaria. Temario 2. Sesión Plenaria. Temario 5.</p> <p>10:45 - 11:00 Café y refrescos.</p>	<p>09:00 - 13:00 Salón Rojo</p> <p>Sesión Plenaria. Temario 4. Sesión Plenaria. Temario 6.</p> <p>10:45 - 11:00 Café y refrescos.</p>	<p>8:00 - 9:30 Salones I y II Reunión comisiones relatoras para preparar conclusiones y recomendaciones temarios 4-6 Salón III Reunión de grupos temáticos para revisión y aprobación de conclusiones y recomendaciones 09:30 - 10:30 Cafe y refrescos. 10:30 - 11:30 Salón Rojo Reunión Plenaria del Congreso y Clausura Oficial.</p>
<p>15:30 - 18:30 Salón Rojo</p> <p>Conferencias Magistrales a cargo de Directivos Iberoamericanos.</p>	<p>15:00 - 17:00 Salones I y II Grupos de trabajo sobre los temarios 1 y 3. 17:15 - 17:30 Café y refrescos.</p>	<p>15:00 - 17:00 Salones I y II Grupos de trabajo sobre los Temarios 2 y 5. 17:15 - 17:30 Café y refrescos. 17:00 - 18:00 Salones I, II y III Reunión comisiones relatoras para preparar conclusiones y recomendaciones Temarios 1-3.</p>	<p>15:00 - 17:00 Salones I y II Grupos de trabajo sobre los temarios 4 y 6. 17:15 - 17:30 Café y refrescos. 17:00 - 18:00 Salones I, II y III Reunión comisiones relatoras para preparar conclusiones y recomendaciones temarios 2-5.</p>	<p>Tarde libre.</p> <p>19:00 - 21:00 Salón Rojo Cocktail de Clausura.</p>
<p>18:30 - 19:30 Salón Esmeralda</p> <p>Inauguración de la exhibición de instrumentos, equipos y catálogos.</p> <p>20:00 - 21:30 Salón Rojo</p> <p>Cocktail de bienvenida.</p>	<p>17:30 - 19:00 Salón Rojo</p> <p>Presentación y lectura de comunicaciones libres y paneles técnicos:</p> <p>— Panel: Formación de especialistas.</p> <p>— Panel: Investigación.</p> <p>— Panel: Legislación ambiental.</p>			
		<p>20:30 Salón Rojo Acto Cultural.</p>		

BOLETIN DE INSCRIPCION — II CONGRESO IBEROAMERICANO DEL MEDIO AMBIENTE

Desea inscribirse en la:

Sección I ☐

Sección II ☐

Sección III ☐

Paneles ☐

Formación de Especialistas ☐

Investigación ☐

Legislación ☐

Nombre

Dirección

Profesión

Presenta comunicación SI ☐

NO ☐

Cargo

Título:

Sírvase diligenciar este formulario y acompañarlo del cheque respectivo a nombre de INCITEC (NIT No. 60.042.994), por correo certificado al Secretariado, carrera 19 No. 66-21, Bogotá - Colombia.

UNITED NATIONS
DEVELOPMENT PROGRAMME



PROGRAMME DES NATIONS UNIES
POUR LE DEVELOPPEMENT

Institut de la Vie
(Marois) File
S - Environment & Health

GLO/78/005

8 June 1978

Dear Professor Marois,

I wish to acknowledge with appreciation the receipt of your letter of 18 May which crossed in the mail with my letter to you of 17 May. I am also thankful for your letter of 23 May.

Since the receipt of these communications, I have had an opportunity of speaking with Dr. Lee, and I am very pleased that the arrangements which have been made are now likely to result in a joint effort between the Institut de la Vie, the World Bank, WHO and UNDP. I shall be happy to accept your kind invitation to serve as a member of the Liaison Committee which will plan the organization of the two conferences. However, I have no recommendation to make with regard to your invitation to me to submit names of scientists who could serve on the organizing committees. I am sure that such individuals who may be nominated by the World Bank, WHO, as well as by yourself, will be fully acceptable to us.

Let me again express to you my appreciation for your interest, and I remain, with best personal regards,

Yours sincerely,

William T. Mashler
Senior Director
Division for Global and Interregional Projects

Professor M. Marois
Institut de la Vie
89, Bd. Saint-Michel
Paris 5
France-

cc: Dr. Flache, WHO
Dr. Lee, World Bank

June 8, 1978

Mr. Leon de Rosen
Director, Industry & Environment Office
United Nations Environment Programme
17 Rue Margueritte
75017 Paris
FRANCE

Re: Aluminum Industry

Dear Leon:

✓
Your letter of April 28 was waiting for me when I returned from India the middle of May. I am also very sorry to have missed what must have been a very interesting meeting. I will now try to answer your questions on bauxite residues and on the rehabilitation of bauxite mines.

For bauxite residues, we make the distinction between the bauxite concentrated at the mine by the normal physical concentration techniques and the bauxite refined to hydrated aluminum by the Bayer process. In the first case we will allow discharge in public water if the sponsor can show us that no harm will be done to the fauna or the flora of the waterways. In the case of red muds from the Bayer process our guideline is the same as EPA standards--no discharge. This does not mean that in some special case we would not allow it but the project sponsor would have to prove to us without any doubt that no harm would be done. The alternative to discharge is ponding on company property.

For rehabilitation of bauxite mines, we apply our general Open Pit Mining guideline on land reclamation (see attachment) including the condition that the land reclaiming has to start at the latest, 3 years after the mine opening. I trust the preceding answers your questions.

Best personal regards.

Sincerely,

J. Tixhon

Jean M.H. Tixhon
Office of Environmental and
Health Affairs

Attachment

Dr. J.A. Lee, OEHA
Mr. H. Reitze, OEHA

J.Tixhon/md

Mr. Efrain Friedmann, EWT

June 8, 1978

James A. Lee, *JAL* Office of Environmental and Health Affairs

Nuclear Projects in World Bank

Recent press releases reveal that the World Bank would consider investing in nuclear projects to the extent they represent a least cost solution as customary. Since the profound and manifold environmental and health aspects of such projects would have to be assessed without precedence by this Office, the earliest possible warning you can provide us would greatly expedite such assessment. Please would you advise this Office as soon as you receive the first overtures or pre-identification of any potential nuclear involvement?

RG:amm

cc: Messrs. W. Baum-PAS
H. van der Tak-PAS
R. Overby-OEHA
J. Tixhon-OEHA
B. H. Liese-OEHA
F. J. Lethem-PAS
R. Goodland-OEHA

4 Treble House
Blewbury
Didcot
Oxon, OX11 9NZ

5 June 1978

Dear Mr. Reitze,

I am once again in Nairobi, primarily to present a progress report on my study to the meeting of ECB focal points on 26 May. A copy of my report, and of the annex consisting of a final draft of my final report, is being sent under separate cover to the World Bank focal point. I am however sending a personal copy herewith.

In the light of some further discussions with UNEP, I am considering the need to add to my report a section on "environment and development". This would refer specifically to UNEP pilot ecodevelopment projects in Colombia and Iran and possibly also to a UNEP environment and development project in Kenya. I would welcome your advice on this suggestion and also your views as to whether any World Bank projects would fall under this heading.

According to my notes on our discussions in Washington, you stated that the World Bank had very few projects of a specifically environmental nature. You mentioned however one project of this kind in Finland and another in Sao Paulo. Do you consider that these (and any other similar projects) could be categorized under the heading "environment and development"? If so, I should be very grateful if you could send me any readily available information about them, or alternatively let me have a brief account of them - a paragraph on each project would be sufficient.

It was a great pity that you were not present at the meeting of focal points. I would have been very happy to have seen you again and to have followed up on our previous conversations.

Yours sincerely,

Olive M. Ashford

O.M. Ashford

Mr. H. Reitze
Office of the Environment and Health
Affairs
The World Bank
1818 H. Street, N.W.
Washington D.C. 20433
USA

SYSTEMATIC EXAMINATION OF ECB MEMBERS' ACTIVITIES

Progress Report

By O.M. Ashford

1. Attached to the present progress report is an incomplete first draft of the report for ECB which, according to the terms of reference of the study, should be ready for submission to UNEP by the end of June 1978.
2. It should be stressed that the draft was prepared in a rather short time after the completion of a round of visits to selected ECB members. It has not yet been discussed with any of the Focal Points of UNEP and doubtless contains many inaccuracies, oversimplifications and inconsistencies. Furthermore, it does not take into account information received after 12 May 1978 (important communications from ECWA and the Committee for Co-ordination of Investigations of the Lower Mekong Basin arrived on 15 May). It was however felt that it would be better to submit the draft itself to the meeting of Focal Points rather than to submit simply a progress report as called for in the terms of reference.
3. It is suggested that the limited time available at the meeting could best be devoted to discussion of a few points of general interest. Any corrections or suggestions on points of detail could be communicated directly from individual Focal Points to the consultant. The attention of the meeting is invited especially to the following points.
4. On pages 4 and 5 of the draft, there is a discussion of the scope of the report. Does the meeting agree with the proposed interpretation of the phrase "field operational projects"?

5. The terms of reference did not call for critical comments by the consultant and these have been avoided in the draft. Is it nevertheless agreed that the final report should contain suggestions for follow-up action (which may of course contain implied criticisms)?

6. Any comments by the meeting on the layout and balance of the draft would be appreciated. If any major omissions have been noted, they might also usefully be discussed. In this connexion, the consultant is already aware that there is little mention in the present draft of the activities of UNEP, in spite of the specific reference to UNEP in para. 3 of the terms of reference for the study. Additional material on UNEP is being collected during the present visit to Nairobi.

7. No countries have been mentioned by name in the draft report. Does the meeting have any views on this question?

8. According to the terms of reference for the study, the steps taken by ECB members to minimize adverse environmental impacts should have been described "for each category of activity." For the first draft it was decided instead to describe the steps organization by organization. Does the meeting agree that this would be an acceptable arrangement for the final version?

9. The terms of reference for the study mention twice the "identification" by ECB members of adverse environmental impacts but little is said about this in the draft report. Ought an attempt be made in the final version to pay more attention to the question of how ECB members "identify" such impacts, or is it sufficient to concentrate, as in the present draft, on steps taken to minimize them?

10. The final section of the draft contains proposals for the second part of the study. The consultant considers that it is more urgent to develop guidelines than to carry out in-depth analysis but according to the terms of reference the guidelines should be based on the in-depth analysis. Does the meeting have any views on this question?

FIRST DRAFT

Environmental Impact of the Activities of the United
Nations System

Report on Study carried out for the
Environment Co-ordination Board

By O.M. Ashford

Consultant appointed by UNEP

Background to the Study

The first specific reference to the present study can be found in paragraph 14(g) of the report of the Environment Co-ordination Board on its sixth session (New York, October 1976) which reads as follows:

"The Board would be performing a most useful function if it advanced the systematic examination of its members activities in order to establish any adverse environmental impact and the action already taken or required to secure the minimization of such impact. The Board requested its focal points to develop for the Board's consideration at its seventh session detailed proposals for such an examination."

In accordance with this decision a discussion note was prepared by the UNEP Secretariat for the January 1977 meeting of UNEP focal points. The focal points considered that "the matter should be handled with caution and that this exercise should be a collective undertaking of all ECB members and kept within reasonable dimensions. Only major impacts, resulting from operational as well as from other activities of agencies, and classified according to the types of activities undertaken, should be reviewed. It was clear that more thinking was required first and it was agreed that UNEP would propose to the May 1977 meeting of focal points terms of reference for a consultant who would assist in the preparation of a detailed methodology and scope for the study" (see UNEP/ECB/R.30, para.14).

Further discussions took place at the meetings of focal points in May and September 1977. The proposals made at the September meeting were approved by ECB at its seventh session in October 1977. In particular the Board "agreed that the study should be concerned initially only with major impacts on the environment resulting from operational field projects and, possibly, norms, standards and regulations, classified according to the types of activities undertaken.

It was recognized that while in the broadest sense nearly

all activities had some sort of environmental impact, the concern of the study at the present stage should be with major impacts which arose as a direct consequence of members' activities. Though the emphasis should be on the ways in which potential adverse impacts were identified and dealt with, the study should, where appropriate, also recognize that many of the agencies' activities were beneficial to the environment." (see paras. 22 and 23 of UNEP/GC.6/5).

Terms of reference

The ECB approved the following terms of reference for the first part of the study:

- (a) On the basis, where available, of a first identification by agency focal points of those activities undertaken by their organizations which, in their opinion, could result in a major environmental impact, to carry out a study so as:
 - (1) to categorise the relevant activities undertaken by ECB members;
 - (11) to categorize the environmental impacts (both beneficial and adverse) to which these activities may give rise, and
 - (111) to give an account of the steps taken or planned to identify and minimize possible adverse impacts for each category of activity;
- (b) to design the second part of the study involving:
 - (1) in-depth analysis of a representative number of ECB members' activities selected on the basis of the results of the first part of the study, and then
 - (11) on the basis of the first part of the study and the in-depth analysis, development of guidelines for use by all ECB members in determining how to assess, and minimize, the possible adverse environmental impact of their activities.
(See UNEP/ECB/R.36 p.2 and 3 Para. 4).

It was further decided that this first part should be carried

out by a consultant recruited by the Executive Director of UNEP. In undertaking the first part of the study, "the consultant should draw upon existing and readily-available information including:

- (a) legislative authorities or any other statutory mandates of ECB members;
- (b) records of previous sessions of the policy-making and programming bodies of the members;
- (c) planning and decision making procedures of members, and their organizational structure;
- (d) information about the ways in which members consult and maintain liaison with each other as well as with other inter-governmental and non-governmental organizations, and
- (e) reports of UN bodies' and agencies' activities and any other publications.

The first part of the study would involve visits to the headquarters of ECB members as necessary. The consultant would need to rely on the focal points of ECB for appropriate assistance and liaison within the respective organizations, and would be assisted by the UNEP secretariat in making any necessary contacts with ECB members". (See UNEP/ECB/R.36 paras. 5 and 6).

Scope of study

Although the terms of reference quoted above seem to be unambiguous, there are two points which gave rise to some discussion in the preliminary stages of the study. To avoid any misunderstanding of the remainder of this report it may be useful to elaborate on these.

In the first place, considerable thought was given to the interpretation of the expression "field operational projects" which could have "major" environmental impact. Taken in conjunction with the decision that the study at this stage should concern impacts which arise as a "direct" consequence of members' activities, it seemed clear that the intention had been to exclude any whose environmental impact could only be indirect. This meant that research work, education and training and the preparation of Technical Reports fall outside the scope of the study. It could be argued (and some have in fact argued) that pre-investment projects, such as those carried out under UNDP, should be excluded from the study on the grounds that they are too small individually to have any major direct environmental impact. But such an interpretation would effectively have limited the study to the activities of the World Bank. Furthermore, the pre-investment feasibility stage of a project represents

a critical phase for environmental assessment and appraisal. It was therefore decided tentatively to include within the field of the study any relevant pre-investment projects. That this had been the intention of those responsible for drafting the terms of reference for the study was confirmed in subsequent discussions with various focal points.

The second point concerns the expression "to give an account" of the steps taken by ECB members to identify and minimise possible adverse environmental impacts of their activities. After discussion with various focal points, this expression has been interpreted as meaning to report objectively without offering critical comments or making formal proposals for possible improvements. It is assumed that the UNEP focal points, and subsequently the ECB (or its successor) will themselves make any necessary critical analysis based on the purely objective findings of the consultant. Some informal suggestions, which are believed to be fairly non-controversial, are nevertheless offered for consideration.

Procedure

The procedures followed in carrying out the study were of course based on the terms of reference quoted

above. After a preliminary communication by the Executive Director of UNEP to members of ECB announcing his appointment, the consultant wrote to all the focal points in mid-February 1978 to seek their assistance. In particular he sought their views on which of the organization's operational field projects could have major environmental impacts. He also requested information about relevant programmes and projects, about steps taken to minimize any possible adverse environmental impacts and about any relevant regulations, standards and norms.

In the light of discussions with UNEP officers during a preliminary visit to Nairobi early in February 1978, the consultant also prepared a tentative programme for visiting the headquarters of those organizations which were most closely concerned in the study. This programme was subsequently

implemented after consultations with the organizations in question."

The following organizations were visited:

IMCO	9 March 1978
Unesco	16 and 17 March (in conjunction with meeting of focal points) and 10 April
FAO	11 to 14 April
WFP	14 April
ILO	17 April
WHO	18 and 19 April
UNIDO	20 and 21 April
IAEA	20 and 21 April
UN/ESA	24 to 26 April
UNDP	24 to 26 April
UNICEF	26 April
World Bank	27 April to 1 May

Furthermore, several focal points were contacted by telephone, mainly with a view to receiving confirmation that their organizations were not involved in the study.

Following suggestions made by UNEP, the consultant also visited the headquarters of the International Institute for Environment and Development in London and Washington. These visits provided a valuable opportunity to discuss with the principal authors the draft of the IIED report "Banking on the Biosphere". Every effort was made in the visits to UNDP and the World Bank, which were covered in the IIED report, to avoid repeating questions already asked by the IIED personnel.

Summary of information received from UN bodies

United Nations Economic and Social Affairs * (UN/ESA)

During the visit from 24 to 26 April 1978, documents were collected on the activities of the Centre for Housing, Building and Planning, the Centre for Natural Resources and the Ocean Economics and Technology Office.

* NOTE: Further details about the activities of organizations marked with an asterisk are given later in this report.

Economic Commission for Europe (ECE)

It was confirmed by telephone that ECE is not engaged in any field operational activities which could have major environmental impacts and that no relevant ECE standards have been adopted.

Economic and Social Commission for Asia and the Pacific (ESCAP)

Information was provided by letter of 20 March 1978 on the ESCAP/UNEP joint programming meeting of February/March 1977 and about various projects being carried out with UNDP and UNEP support. In subsequent letter of 3 May it was stated that "in the strictest sense of the word our environmental activities are not 'field operational'. Our main emphasis is generally on technical assistance and dissemination and exchange of information. However, there are agencies such as the Committee for Co-ordination of Investigations of the Lower Mekong Basin and the Regional Offshore Prospecting in East Asia which undertake certain field operational activities". Information about these activities is awaited.

Economic Commission for Latin America (CEPAL)

In a letter of 4 April 1978 it was stated that "as CEPAL is not an operational agency, our activities will not result directly in major environmental impacts". A summary of CEPAL's main activities on environment was provided and it was indicated that "as our main focus of activity is policy advice in many areas of economic and social concern, indirectly any of our activities could have a major environmental impact". CEPAL considered that a visit by the consultant should have a secondary priority.

Economic Commission for Africa (ECA)

No information received.

Economic Commission for West Asia (ECWA)

No information received.

United Nations Office of the Disaster Relief Co-ordinator (UNDRO)

It was confirmed by telephone that UNDRO is not engaged in any field operational activities which could have major environmental impacts and that no relevant UNDRO standards have been adopted.

World Food Council (WFC)

During a visit to Rome, it was confirmed by informal contacts that WFC is not engaged in any field operational activities which could have major environmental impacts and that no relevant WFC standards have been adopted.

United Nations Conference on Trade and Development (UNCTAD)

It was confirmed by telephone that UNCTAD is not engaged in any field operational activities which could have major environmental impacts and that no relevant UNCTAD standards have been adopted.

United Nations Industrial Development Organization (UNIDO) *

Information was provided by letter of 15 March 1978 on the UNIDO activities relating to sectoral studies. Various documents were collected during a visit on 20 and 21 April.

United Nations Children's Fund (UNICEF) *

Information was collected during visit on 16 April 1978.

United Nations Development Programme (UNDP) *

Information was provided by letter of 22 March 1978. This included a booklet on UNDP activities, a list of relevant projects being directly executed by the UNDP Office for Projects Execution (OPE) and a circular addressed by the Administrator of UNDP in 1971 to participating and executing agencies on the subject of environment and development. Further information was collected during a visit from 24 to 26 April 1978.

United Nations Fund for Population Activities (UNFPA)

In a letter of 7 March 1978 it was stated that many UNFPA operational field projects "indirectly involve or are otherwise, in part, responses to numerous environmental matters and concerns, such as carrying capacity". Information was provided on relevant UNFPA activities and the letter concluded with the view that while "it would be excessive to state that UNFPA's operational field projects have 'major impacts on the environment'" it would be "fair to state that much of the work of UNFPA has indirect but not unimportant impacts on the environment".

World Food Programme (WFP) *

During the visit on 14 April, information was collected on the WFP policies and on some specific projects.

United Nations High Commission for Refugees (UNHCR)

In a letter of 7 April 1978 it was indicated that the sole UNHCR activity which might be considered to be an operational field project was the rural settlement of refugees. It was further pointed out that refugees in rural settlements are for the most part farmers, herdsmen and fishermen or are involved in cottage industries. The letter therefore concluded with the view that "it would be safe to assume that UNHCR does not sponsor projects that radically alter the environment of a given area".

United Nations Institute for Training and Research (UNITAR)

In a letter of 1 March 1978 it was confirmed that UNITAR is not directly engaged in any operational field projects that could be of interest for the study.

United Nations University (UNU)

In a letter of 8 March 1978 it was stated that UNU is not engaged in any operational field projects that would have major impacts on the environment. Information was provided on the UNU activities, including the first reports emanating from the Natural Resources Programme.

International Labour Office (ILO) *

Comprehensive information was provided on ILO activities, including those relating to occupational health and to conventions and recommendations. During a visit on 17 April, there was also some discussion about ILO work on rural development and appropriate technology.

Food and Agricultural Organization (FAO) *

General information about FAO activities was sent with a letter of 10 March 1978 and details on the most relevant activities were collected during a visit from 11 to 14 April.

United Nations Educational Scientific and Cultural Organization (Unesco) *

Information was collected during visits on 16 and 17 March and on 10 April 1978. This related mainly to activities discussed under the heading "Man and his environment" in the Unesco medium term plan for the period 1977 to 1982.

World Health Organization (WHO) *

Comprehensive information was provided under cover of letters dated 13 and 17 March 1978 and further material was collected during a visit on 18 and 19 April 1978.

World Bank *

Copies of relevant World Bank publications were provided and further information was collected during a visit from 27 April to 1 May 1978.

International Civil Aviation Organization (ICAO) *

In a letter of 13 March 1978 the view was expressed that ICAO activities "are not likely to fall into the category of those having major impacts on the environment resulting from operational field projects". Information was provided about ICAO work on the development of standards, recommended practices and guidance material relating to the noise certification of aircraft and to aircraft engine emissions.

Universal Postal Union (UPU)

No information received.

World Meteorological Organization (WMO) *

In a letter of 18 April it was stated that the only WMO activity relevant to the study is the Precipitation Enhancement Project; comprehensive information on this subject was provided.

Inter-governmental Maritime Consultative Organization (IMCO) *

Following a visit on 9 March 1978, information was provided in a letter of 23 March on the IMCO activities related to norms, standards and regulations. As regards operational field projects, it was stated that IMCO "carries out a number of projects relating to technical assistance to developing countries, which are mainly concerned with training of seafarers, workshops, seminars and technical advice". It was concluded that IMCO is not "directly engaged in any operational projects which would have major impacts on the environment".

World Intellectual Property Organization (WIPO)

In a letter of 17 March 1978 it was confirmed that "WIPO does not have any operational field projects which could have major impacts on the environment".

International Atomic Energy Agency (IAEA) *

Comprehensive information on IAEA activities was provided under cover of a letter of 9 March 1978 and further details were collected during a visit to IAEA on 20 and 21 April 1978.

General Agreement on Tariffs and Trade (GATT)

In a letter of 2 March 1978 it was confirmed that GATT's activities are unlikely to be of interest for the study. GATT has no field projects and only two of the GATT projects related to norms, standards and regulations appear to be at all relevant. The first of these is on a Code of Conduct for Preventing Technical Barriers to Trade. The second is a standing group on environmental measures and international trade. The letter

expressed the view that neither of these projects could result in a major environmental impact.

United Nations Centre for Transnational Corporations (UNCTC)

In a letter of 8 March 1978 it was confirmed that "UNCTC does not have any operational field projects which could have major impacts on the environment".

Categorization of activities

There are many ways in which the activities of ECB members could be categorized. In the absence of any inter-agency agreed system, the best solution is to adopt a set of categories which is well adapted for immediate purposes.

One way of categorizing activities would be to group them according to their basic purpose. This would lead to categories such as pre-investment studies, investment projects, research projects, education and training projects, and public relations projects. As the present study is limited to only two of these categories, this method would not however be very suitable for present purposes. What we need in effect is a system for classifying pre-investment and investment projects, which together make up what have been termed operational field projects.

The obvious way of doing this would be according to the economic or social sector within which the project falls, for example, agriculture, health, industry etc. Even here one runs into difficulties, especially with regard to cross-sectoral activities. Under which category would water-resource development projects fall? Should they form a separate category? If so, would irrigation and community water supply projects be included in the category "water" or in the categories "agriculture" and "health" respectively. Clearly there is no unique way of dividing the cake which is entirely satisfactory.

An examination was made of the systems of categorization used in publications related to the present study. The World Bank "Environmental, Health and Human Ecologic Considerations in

Economic Development Projects" divides projects into five groups: agriculture, industry, transportation, utilities and public health. The SCOPE publication "Environmental Impact Assessment - Principles and Procedures" lists various types of regional development projects that may produce environmental impacts under the following headings: Land use and transformation, resource extraction, resource renewal, agricultural processes, industrial processes, transportation, energy, water disposal and treatment, chemical treatment and recreation. The authors point out that these categories overlap to a certain extent. In its more recent publication "Environment and Development", the World Bank uses the following categories: agriculture, industry, transportation, tourism, water and sewerage, power, urban projects, telecommunications, education, multipurpose, and others. Later in the same publication environmental problems are discussed under the following groups of projects: industry, power, forestry, fishing, livestock, rural development, transport, tourism. It can be seen that many systems of categorization have been used, each doubtless well-suited for its own particular purpose.

One of the ultimate purposes of the present study is surely to assist each ECB member in carrying out the examination of its own activities, as called for by ECB in 1976. It would therefore be useful if the system of categorization made it easy for each ECB member to identify which categories are within the responsibilities of that particular organization. This consideration is an argument in favour of adopting such categories as industry (UNIDO), health (WHO), agriculture (FAO) etc.

With the above consideration in mind it is suggested that the operational field projects of ECB members which could have major environmental impacts can be categorized as follows: agriculture, energy, fisheries, forestry, health, human settlements, industry, rural development, tourism, transport and weather modification. This system of categorization can be illustrated by the following examples, based on information provided by UNEP focal points and on further details collected during the visits to agencies. It must be stressed that the examples given are by no means complete; it is hoped, however, that they are sufficiently representative to

show the nature of the problems encountered.

Agriculture (FAO, UNDP, World Bank)

In the present report, the category agriculture includes irrigation and crop protection but excludes forestry and agro-based industry; the former is considered as a separate category while the latter is dealt with under the category "industry".

From the global point of view agriculture must surely be the most visible of man's impacts on the environment. It is also the most important economic sector in most countries. Agricultural projects accounted for about one third of all the World Bank loans approved in 1977 and for about one quarter of the cost of all currently approved UNDP projects.

The activities of the UN system in this area - as distinct from agricultural activities as a whole - are aimed primarily at helping the developing countries to improve their agricultural production and hence to raise the standard of living of their populations, especially in rural areas. These activities should therefore be of immediate benefit to man's economic and social environment. Their possible adverse environmental impacts relate more to what might be called the physical environment and to long-term ecological effects.

Within FAO emphasis is given to the national management of natural resources which should automatically include steps to minimize the adverse environmental impacts of development projects. It is argued, for example, that a good irrigation engineer will invariably consider such aspects of an irrigation project as water-logging, salinization and leaching. It is however admitted that he would not necessarily take into account environmental impacts outside his own field of competence, such as the effects on water-borne diseases or on wildlife. In the former case, there is now an agreement between FAO and WHO whereby all FAO water projects which could result in the spread of water-borne diseases are referred to WHO for consideration.

One of the most environmentally conscious groups in FAO is

that dealing with crop pest and disease control in the Plant Protection Service. They include in projects for plant protection consideration of the detection and monitoring of the effects of pesticide residues on food and on the environment. They are also engaged in an integrated pest control programme, which is being carried out in collaboration with UNEP. The possible harmful effects of chemical methods for controlling cotton pests are, for example, fully recognized. Other methods of control, such as the use of predators, are considered and chemical methods are only recommended as a last resort. In budgeting for projects, involving the use of pesticides, funds are included for monitoring.

Similarly, in the Locust Control and Emergency Operations Group, support is given to laboratories which investigate alternatives to persistent pesticides, such as dieldrin, which are known to have harmful environmental impacts. Support is also provided to a centre which is studying the persistence of dieldrin in areas sprayed for Desert Locust control.

Another FAO project in which there is close collaboration with WHO, is on tsetse control, which is mainly done by spraying insecticides such as DDT and dieldrin. Some destruction of birds and other wildlife has been reported as a result of such operations in the past. FAO is at present carrying out a five-year project involving the dry savannah zones of twelve countries in Africa. The project includes an applied research component aimed at developing improved control methods for species of tsetse found in dry savannah. The project document calls for a study of "side effects on non-target organisms in field experiments of adequate size".

(Section on irrigation to be added)

Energy (World Bank, UNDP, UN/ESA)

The different types of power projects dealt with in this category include thermal generators, hydroelectric power plants and nuclear reactors; the so-called "non-conventional" sources of energy are also considered briefly. The environmental impacts associated with such projects include air and water pollution and the "thermal" pollution caused by the discharge of water which has been heated in the plant-cooling process.

As regards nuclear reactors, only the World Bank has so far been engaged in a project involving the actual construction of a reactor and this was apparently an isolated instance; one reason why few loans are likely to be granted by the Bank for such projects is that it is relatively easy for countries to obtain funds from other external aid sources. The role of IAEA in this area is limited to advice on the role of nuclear energy in an overall national energy plan and on the choice of different kinds of reactors. The IAEA safety standards are discussed under a later section of this report on standards, norms and regulations. For any nuclear reactor project the World Bank would insist on the application of the IAEA or equivalent standards, which are designed to minimize any possible adverse environmental impacts.

Several specialized agencies, including ILO, Unesco, WHO and WMO, conduct activities which are related in one way or another to hydro-power projects. The only operational field activities directly related to the actual implementation of such projects are however the responsibility of the World Bank, UNDP and

UN/ESA. As usual, UNDP and UN/ESA are mainly concerned with pre-investment studies while loans from the World Bank are used for financing the investment projects. The possible major environmental impacts are similar to those for other water projects; a good account of these is given in an FAO publication "Water and the Environment", prepared with contributions from Unesco, WHO and WMO. These impacts can be both beneficial and adverse and cover a wide range of repercussions of a physical, chemical, biological, social and economic nature. UN/ESA has submitted a proposal to UNEP for a project to cover the preparation of a set of technological guidelines for analysing the environmental impacts of water projects; other UN agencies would provide information on their experience in this field and would be invited to be associated with UN/ESA in the implementation of the project.

In general, it seems likely that the non-conventional sources of energy have less adverse environmental impacts than the traditional thermal and hydroelectric plants; this is especially true for wind, solar, tidal and bio-gas installations. In the case of geothermal projects attention has to be paid to the discharge of the geothermal brine after extraction of the heat; this brine could be toxic and could thus have very serious effects on human, animal and plant life. Both the World Bank and UN/ESA have helped in solving problems of this kind, for example by re-injecting the brine. It has been estimated that the additional costs in one project would have been only one eighth of those actually incurred had the necessary protection measures been incorporated at the outset.

Fisheries (FAO, World Bank, UNDP)

The growing importance of commercial fisheries was demonstrated by the dramatic increase in world catch during the 1950's and 1960's; the total catch in 1973 for example was over 66 million metric tons as compared with less than 26 million metric tons just 20 years earlier. Since 1973 the rate of increase has not been so marked but it is expected that the total yield will continue to increase at a slower rate until it reaches something like 120 million tons per annum. Within FAO the Fisheries

Department has also grown and now accounts for about 10 per cent of the total budget. FAO executes many fisheries' projects supported by UNDP while the World Bank provides substantial loans for fisheries' development.

Perhaps the main environmental problem in fisheries is how to avoid over-exploitation of the available stocks. For this reason the main thrust of the FAO fisheries programme is aimed at assisting countries to improve their resource management activities. One facet of this is to organize fishery surveys with a view to determining the optimum annual sustainable yield; a good example is provided by the Regional Fishery Survey and Development Project in the Gulf, in which eight countries are participating.

Commercial fisheries could have some adverse impacts on other environmental factors. Examples of these are the impacts of aquaculture on the local environment, the effects of the introduction of exotic species and the unpleasant impacts of some of the traditional methods of fish drying on beaches (smell, insects, vermin, offal disposal). In this latter connexion the activities of FAO on the introduction of improved fish processing undoubtedly has a beneficial environmental impact. It is also relevant that FAO does not support the introduction of exotic species of fish unless prior studies have shown that there will be no serious adverse environmental impact.

On balance it seems that the impact of environmental changes on fisheries is likely to be more serious than the impact of fisheries on the environment. In some areas marine pollution is already causing serious problems and FAO is accordingly engaged in the monitoring of water quality.

Forestry (FAO, UNDP, World Bank)

The possible adverse environmental impacts of forestry projects are well known. The exploitation of forests can for example lead to serious problems of soil erosion and to increased risks of flooding in the river valleys due to more rapid run-off after heavy rainfall. The removal of forest cover on steep

slopes can even lead to the complete denudation of an area. Conversely, a sound programme of integrated forestry development with adequate re-forestation can have major beneficial environmental impacts.

The main expertise in this field within the UN system lies in FAO, which executes many pre-investment studies with support from UNDP. It is also an area of growing importance for World Bank activities. The scale of all these operations is however minute in comparison with the total amount of forestry activities in the world.

A recent Sector Policy Paper by the World Bank "Forestry" gives an excellent account of the importance of the world's forests, both from the economic and ecological points of view. Furthermore, forestry was one of the four sectors chosen for in-depth review in the IIED report "Banking on the Biosphere". Under the circumstances, it does not seem necessary to enter into a detailed discussion of the subject in the present report.

Health (WHO, World Bank, UNDP, UNICEF, WFP)

An excellent survey of this whole area is given in a Sector Policy Paper entitled "Health", which was issued by the World Bank in March 1975. This stresses the relationship between health and economic progress. On the one hand a low standard of health retards economic progress while on the other economic progress itself, with improved safe water supplies, better arrangements for sanitary waste disposal, adequate housing and improved nutrition, is necessary to reduce the threats to health. The report at the same time points out that "improvements in health reduce mortality and tend, therefore, to accelerate population growth. In the longer term, once people perceive a reduction in infant and child mortality, they may want smaller families; but the interval between health improvements and this perception may be considerable. If the improvements are not accompanied by other measures to promote socioeconomic progress, faster population growth may offset the stimulus to economic development that better health could bring through reduced absenteeism, increased labour productivity and better exploitation of natural resources".

Within the UN system, WHO has the primary responsibility for activities relating to health. UNICEF supports projects which help to improve the health of children. By providing food in times of emergency and also for workers engaged in development projects, WFP also plays an important role in health. The present policy of the World Bank is to include health components in its other development projects rather than to provide loans for basic health services as such.

While the main environmental impact of all these UN activities is undoubtedly beneficial, there are several areas in which there is a risk of major adverse environmental impacts. The use of insecticides to control disease vectors can have serious effects on non-target insects and on other forms of wildlife. The introduction of safe water supplies may have unintended harmful effects if not accompanied by adequate means for disposal of the resulting increased amounts of waste water.

The largest operational field project in which WHO is at present engaged, with substantial support from the World Bank, UNDP, FAO and UNEP, is the Onchocerciasis Control Programme, started in 1975 at the request of 19 African countries. This 20-year campaign aims at controlling the blackfly which carries the disease (river blindness). Initial efforts were concentrated on finding the most suitable insecticides, it having been decided that ecological considerations would forbid protracted use of DDT. Abate was selected as being especially lethal for blackfly larvae but relatively harmless for fish and freshwater organisms. The project includes a system for monitoring the aquatic environment. Although much remains unknown about the ecology of the area in which the project is being carried out, the present indications are that the environmental impacts arising from the use of insecticide are not likely to be serious.

Another tropical disease to which increased attention is being paid by WHO is schistosomiasis, which has spread alarmingly in some areas as a result of irrigation and other water development projects. At present WHO is mainly supporting research efforts aimed at a multi-pronged attack including control of the snail vector and chemotherapy - there is apparently no prospect of complete

eradication of the disease. The use of massive doses of molluscicides could have serious environmental impacts but their widespread use would only be supported by WHO if strict controls were applied. It has not yet been decided if WHO will ultimately embark on a major operational field project for control of schistosomiasis.

Considerable publicity has been given to the work of WHO on malaria, which has now become a control campaign rather than an eradication campaign. Most of the WHO budget allocation for this programme goes to support of country programmes but there is some provision for research and epidemiological studies. The use of DDT for controlling the mosquito vector probably has much less adverse environmental impact than its use for agricultural purposes; for malaria control the total quantities of DDT used are much smaller and it is sprayed mainly inside buildings. WHO is supporting work on the use of less persistent types of insecticides, such as organo-phosphates.

Another area of WHO activities of interest for the present report is environmental health, which is mainly concerned with water supply and sewerage. Governments tend to be more enthusiastic about having safe water supplies than about sewerage and there is often a time lag of several years between a water project and the associated sewerage project. In the meantime the waste domestic water may cause environmental problems. The WHO policy is that any water supply study should include a study of sewerage but this is not always insisted upon by UNDP and the World Bank. Other environmental problems in this area are associated with sludge from water treatment plants and residues from desalinization plants. WHO is giving consideration to the re-use of waste water, especially sewage, which seems likely to become of increasing importance in future. The World Bank is conducting a research project on alternate approaches to sanitation technology, including the environmental impacts of various options.

UNICEF is also engaged in environmental sanitation projects and endeavours to ensure that sewerage is considered at the same

time as clean water supplies. Their field staff assist Governments in the formulation of projects but the actual projects are invariably implemented by Governments.

The WFP expenditures on a wide variety of projects are very considerable but they are mainly in the form of assistance in kind, namely the provision of food for workers engaged in development projects. The impact of WFP activities on the environment are considered to be marginal but there may be opportunity for them to exert an influence in favour of minimizing adverse environmental impacts.

Human settlements (World Bank, UNDP, UN/ESA, UNEP)

Activities under the category of human settlements are at present under revision in the UN system as a result of the restructuring which has followed from the Habitat Conference in Vancouver in 1976. Many UN organizations are engaged in activities related to human settlements but the principal operational field projects are carried out under World Bank loans and under UNDP projects for which the Centre for Housing within UN/ESA acts as the executing agency. In the near future many of the activities will presumably be concentrated in the UN Centre for Human Settlements in Nairobi. The proximity to UNEP headquarters and the great interest of UNEP in human settlements should ensure that the environmental aspects of future UN/ESA projects are taken fully into consideration.

A fairly detailed review of human settlements policies and activities is given in "Banking on the Environment" and it may therefore not be necessary to enlarge further on this subject in the present report.

Industry (UNIDO, World Bank, UNDP, FAO)

Industrial development is one of the major ways of improving the social-economic environment in the developing countries but at the same time industry is one of the main sources of environmental pollution. Fortunately, industrial pollution can be controlled; in each case it is necessary to strike a balance between cost and the level of environmental pollution which is acceptable. A developing country which is anxious to develop

new industries quickly is often prepared to tolerate a higher degree of industrial pollution than would now be accepted in an advanced country which has already had experience of the adverse impacts of industry on the environment.

Pre-investment studies for industry are among the most important activities of UNDP, with UNIDO serving as executing agency in many cases. Normally UNIDO'S role is completed when the pre-investment study has been successfully accomplished and arrangements have been made for any necessary external financing of the ensuing investment project. At this stage the World Bank may become involved but most projects are funded from sources outside the UN system. This underlines the importance of introducing environmental consideration at the pre-investment stage - after this, the UN system may no longer be able to exert any influence.

It would be beyond the scope of the present report to try to describe all the possible adverse environmental impacts of industry. Suffice it to mention a few examples where ECB members have encountered potentially serious environmental problems.

In one case UNIDO was asked to study the problems which had arisen from the discharge of industrial effluents into a river which was used for fishing, community water supplies etc. Among the UNIDO recommendations was a proposal to establish a national environmental protection agency which could monitor the industrial wastes. This case illustrates a point that emerged frequently throughout the study, namely that the influence of ECB members at the national level depends on the adequacy of the national arrangements (legislation, monitoring, enforcement etc) for environmental protection.

In another case UNIDO made recommendations to prevent the discharge of an aluminium plant from spoiling some beaches.

A steel project in one of the more advanced developing countries was financed by the World Bank which is satisfied that the environmental aspects are of the highest standard. This contrasts with the serious environmental problems encountered in

the same country from another steel plant which was installed earlier without World Bank involvement. The World Bank in fact helped the country in question to develop regulations for environmental protection. The Bank is now considering a steel project in a much less developed country and in this case it seems that there will be greater difficulties in ensuring adequate environmental protection.

One industry in which FAO is also concerned is paper pulp manufacture. Without treatment, the effluent from a pulp paper mill would pollute the river into which it flows, with organic substances, sulphur, sodium and various toxic chlorinated residues. The oxygen level of the water in the river would be reduced and fish would be adversely affected while algae would thrive. The water downstream from the effluent would be harmful for fish and would not be suitable for community water supplies. Various degrees of treatment can be applied, from a relatively inexpensive primary treatment to a more costly system involving recycling of the water. Such mills also produce air pollution, including dust and an unpleasant smell. In all such projects under the auspices of UN agencies, priority is given to primary treatment of the effluent and to removal of dust from the air. More sophisticated treatment depends on the amount of pollution which the Government in question is prepared to tolerate. The cost of treatment is much lower if it is incorporated from the beginning than if it is added at a later stage.

The UNIDO International Centre for Industrial Studies is at present engaged in producing a series of papers on pollution problems in various branches of industry. These already issued include papers on the edible oil industry, petrochemicals, pharmaceuticals, fertilizers, agro-industries (edible products) while others are in preparation. Environmental aspects are also discussed in a series of UNIDO sectoral studies, which review the economic, technological, financial and human aspects of specific industrial sectors.

Sectoral studies given high priority in 1977 include agro-based industries, vegetable oils and fats and leather and leather

products. Studies have also been initiated on agricultural machinery, capital goods, pharmaceuticals and petrochemicals.

The impression gained was that all the ECB members concerned are well aware of the importance of industrial pollution problems and are making a determined effort to minimize the possible adverse environmental impacts of the new industries which they are attempting to foster in the developing countries.

Rural Development

Tourism (World Bank and UNDP)

Although many ECB members are involved in one way or another in activities related to tourism, the World Bank is apparently the only UN organization which has so far engaged in any large operational field projects in this area. Some pre-investment studies have been supported by UNDP.

A Sector Working Paper entitled "Tourism" was issued by the World Bank in 1972; it gives an account of the growth of tourism and describes the role of the World Bank "in encouraging the establishment and extension of the tourism industry in developing countries". The importance of the environmental and cultural impact of tourism is stressed and these aspects have received very careful attention in all World Bank tourism projects.

Many examples could be given of where the development of an area for tourism by private developers has resulted in a serious degradation of the environment. The World Bank has consistently endeavoured to assist countries in avoiding such mistakes. In some projects special attention is being paid to the protection of mangrove swamps. In another, facilities are being introduced for a famous archaeological site which would permit a large increase in the tourist capacity without harming the ruins. Elsewhere the World Bank is supporting a tourism project aimed at allowing more tourists to enjoy nature - without harming the wildlife.

Summing up, tourism appears to be a sector in which the World Bank has taken steps to minimize any possible adverse environmental impacts in all its operational field projects.

Transport (World Bank, UNDP, UN/ESA, ICAO, IMCO)

A survey of the activities of the UN system in the category

of transport was issued in 1976. This shows that many agencies are involved in such work within their own fields of competence. It is however believed that very few carry out what may be called operational field projects in this area.

The construction of roads and railways certainly has an environmental impact in their immediate vicinity and in some cases such projects could change the surface water drainage and lead to erosion over a wider area. A more important indirect impact is that caused by the influx of human beings to places made more accessible by new roads and railways.

The environmental impacts of aviation include noise and air pollution, especially in the vicinity of airports. As reported elsewhere in this report, ICAO does not have any operational field projects which fall within the coverage of the present report; its activities on standards are however relevant and are mentioned in the section of norms, regulations and standards.

(to be completed)

Weather modification (WMO, UNEP)

WMO is at present planning a Precipitation Enhancement Project (PEP) designed to provide "reliable information about the probabilities of successful artificial intervention in meteorological processes with the object of increasing the amount of precipitation over an area of the order of 10 000 km²". Although at the present stage this is still a research project, it is included in the present report because of the very considerable environmental impact which precipitation enhancement operations could have.

In the target area, any success in increasing the amount of precipitation would be beneficial for food production and for conserving water supplies. There is however a possibility of adverse environmental impacts both within and outside the target-area - e.g. the increase in precipitation could result in floods in the target area and also be accompanied by a serious reduction in precipitation outside the target area. Furthermore, the chemical reagents used for cloud seeding could conceivably have effects on vegetation. The stated objectives of PEP include "an assessment of the environmental impact of precipitation activities both within and outside the experiment target area".

UNEP is providing support for the study of the environmental impacts within PEP.

Categorization of impacts

The difficulties encountered in developing a system for categorizing environmental impacts are similar to those experienced with regard to categorizing operational field projects. But first of all it may be useful to clarify understanding of the expression "environmental impacts".

SCOPE (op. cit.) proposes to make a distinction between an environmental "effect" (such as erosion of soil, the dispersion of pollutants) and an environmental "impact", defined as "the net change (good or bad) in man's health and well-being (including the well-being of the ecosystems on which man's survival depends) that results from an environmental effect". Examples quoted of

environmental effects include; quality and stability of soil; area of arable land; quality of air; quality, quantity and seasonality of water; area of man-made lakes; extent of irrigation canals; abundance/scarcity of species or genetic resources; extent of crops, ecosystems, vegetation and forests; diversity of species; extent of provision of nesting grounds for migratory species; abundance/scarcity of pests and disease organisms. Environmental impacts are grouped in the following categories: economic and occupational status; social pattern or life style; social amenities and relationships; psychological features; physical amenities; health; personal security; religion and traditional belief; technology; cultural; political; legal; aesthetic; statutory laws and acts.

It is suggested that for the purposes of the present study the expression "environmental impact" corresponds very closely with what SCOPE defines as "environmental effect". The SCOPE categorization of these effects could well be a satisfactory system for categorizing the environmental impacts of the operational field projects of ECB members. It is understood, of course, that what SCOPE calls "environmental impacts" would have to be taken into account when considering how to minimize the adverse impacts of any particular project.

Steps taken or planned to identify and to minimize adverse environmental impacts

The terms of reference for the consultant called for an account of "the steps taken or planned to identify and minimize possible adverse impacts for each category of activity" by ECB members. On the basis of the information received, it seemed that the measures taken to this end are of a general nature and are applicable to all categories of activities rather than to specific types of activities. Furthermore the steps taken by two organizations (UNDP and World Bank) appear to be more deliberate than those taken by other organizations; for these two organizations fairly clearly defined policies and directives have been laid down, whereas for the other organizations they are of a more ad hoc nature.

For the above reasons it seemed much simpler, and probably more logical, first to give an account of the steps taken by UNDP and the World Bank and to follow this with an account of the situation in the other organizations. It was therefore decided to adopt this procedure in the present section of the report.

United Nations Development Programme (UNDP)

Present situation

Many of the pre-investment projects supported by UNDP fall under the category of activities which could have major environmental impacts.

The UNDP policy is to decentralize decision making as far as possible. Under certain circumstances Resident Representatives of UNDP can approve projects costing up to U.S. \$ 400 000. Larger projects have to be submitted to the relevant Regional Bureau prior to approval. For most projects one or other of the UN Specialized Agencies serves as executing agency, but certain projects are implemented directly by UNDP. This latter arrangement applies "largely in fields that demand a mix of different competencies, a multi-disciplinary approach, very advanced Technologies, financing from several different sources, or experts in relatively uncommon specialities" (see "The UNDP-

Why, What, How, Where" p.19).

The official attitude of UNDP to the environmental aspects of UNDP projects is reflected in a circular addressed to participating and executing agencies of UNDP by the Administrator on 11 November 1971 (i.e. prior to the Stockholm Conference). This circular lists some queries relating to environment and development which "might be made when drawing up and reviewing plans or projections either on a project, sector, country, regional or interregional scale". In the covering memorandum it is stated that "it is envisaged that in due course this paper will form part of the projected document on Instructions for Processing of UNDP-assisted Projects," but this has apparently not been done.

Another indication of UNDP policy is given in the Policies and Procedures Manual. In this the Resident Representative is requested to send a copy of each draft Project Document to UNEP "if the project has important environmental implications". In turn, UNEP "should, if it so desires, provide its comments to the Regional Bureau or to the Resident Representative, as appropriate, with copy to the other, within one month of the date of receipt of the draft Project Document".

This same Manual contains a Sample Format for a UNDP project with appropriate instructions. The only reference to the environment in this section of the Manual is under the heading "Special Considerations" where it is stated that the project "may be concerned with one or more social goals" including "preservation or improvement of environmental considerations". There is no reference to the need to consider possible adverse environmental impacts in development projects.

The attitude at UNDP headquarters is that responsibility for minimizing any adverse environmental impacts of a UNDP project rests with the Government, the Resident Representative, the Executing Agency and UNEP. There is no systematic check at headquarters to ensure that appropriate provisions have been made in the Project Document or that adequate measures are taken during the implementation of a project. To make arrangements for such action at headquarters would be very difficult in view

of the decentralized system of decision making within UNDP; some would argue that such action would not be in conformity with the UNDP policy to decentralize.

At UNDP headquarters little information seems to be available about the effectiveness of the arrangements whereby UNEP is invited to comment on the environmental aspects of draft project documents. The Regional Bureaux are particularly interested in UNEP comments in the case of complex projects which are interdisciplinary and involve several agencies. In more straightforward projects the UNEP comments are only considered at the Resident Representative level.

In the absence of any systematic evaluation from the environmental point of view of completed UNDP projects, it is difficult to make a valid assessment of the extent to which possible adverse environmental impacts are taken into account in the formulation and execution of UNDP projects. The reports prepared on the completion of each project would not provide a sufficient basis for such an assessment, as there is no requirement to include in these reports a separate section on environmental impact.

The impression gained after a rather superficial study of the situation is that in many UNDP projects the environmental aspects are very carefully considered. Some good examples of such instances are mentioned in "The UNDP - Why, What, How, Where". Elsewhere in the present report there is mention of some UNDP projects executed by other ECB members. As regards the projects which are implemented directly by UNDP, a good illustration is provided by the feasibility study for the hydro-electric development of ~~the~~^{two} ~~the~~ river basins. ~~As usual~~. As usual, the original project document does not have a separate section on environmental aspects. However, in the invitation to contractors to submit bids there is a requirement to carry out a study "to assess the potential environmental impact likely to occur from construction and operation of the project and to determine measures needed to avoid or mitigate identified environmental problems". The technical proposal by the successful contractor indicates clearly what steps will be taken to comply with the above requirement.

Future plans

Little information was received about any existing plans for future arrangements in UNDP. It seems likely that these will be reviewed in the near future at a workshop to discuss the IIED report "Banking on the Biosphere". The following suggestions are offered for consideration.

It would be useful if the environmental aspects of UNDP projects could be given more visibility. One step would be to include a separate section on environmental aspects in all project completion reports.

Although there is good evidence to show that environmental aspects are carefully considered in many UNDP projects, there is always a risk of something serious being overlooked. One simple way of reducing this risk would be to include in the UNDP Policies and Procedures Manual a requirement to include in each project document a section on possible environmental impacts. It is further suggested that the respective responsibilities of Regional Bureaux, Resident Representatives and UNEP for considering the environmental aspects of UNDP projects should be examined and classified as necessary.

In view of the important role of Resident Representatives, they should be given adequate guidance about environmental impacts of development projects. It might for example be possible to include in the Technical Advisory Notes series more information about the types of projects in which there is the greatest risk of adverse environmental impacts. This same series could also include guidance on the environmental impacts of projects in different sectors.

The final suggestion is that within the project evaluation work of UNDP adequate consideration should be given to possible environmental impacts.

World Bank

Present situation

The World Bank appears to be the only organization in which a systematic centralized effort is made to minimize possible

adverse environmental impacts of field operational projects. It is fortunate that within the UN system the World Bank has in this way acted as a pioneer for it is the only organization which makes large investments in major development projects. A clear account of the World Bank procedures has been published in "Environment and Development" (World Bank, June 1975) and a more recent review is contained in "Banking on the Biosphere" (IIED, March 1978). A summary of these procedures should therefore suffice for the present report.

All projects being considered by the World Bank are reviewed by the Office of Environment and Health Affairs (OEHA) with a view to identifying the likely environmental impacts. This Office suggests what investigations should be made to clarify the nature of the impacts and to ensure that appropriate safeguarding measures can be taken. The Office designs any necessary studies and, on completion, participates in further analysis and, where appropriate, in subsequent loan negotiations. The progress of each project is monitored by the appropriate Regional Office and by the Office of Environmental and Health Affairs to ascertain the adequacy of the recommended safeguard measures and to determine what future action may be required.

Data for a 2½-year period up to the end of 1973 showed that for about 60 per cent of World Bank loans there were no environmental problems. In about one per cent of the loans appropriate action had been taken by some other agency (such as UNDP or WHO) prior to World Bank involvement. In about 30 per cent of the projects, the environmental problems could be handled adequately by the World Bank staff. Only in about 5 per cent of the projects was it necessary to call for special studies by outside consultants which led to the incorporation of safeguard measures as a condition of lending.

The World Bank issues a series of operational memoranda and operational manual statements for the guidance of its own staff. They contain a number of references to the steps which should be taken to ensure that adequate consideration is given to possible adverse environmental impacts of World Bank projects. These directives are for internal use only and may not be quoted.

For more general use, the World Bank published in 1974 a valuable report entitled "Environmental, Health and Human Ecologic Considerations in Economic Development Projects". The purpose of this publication was to provide guidance "in the detection, identification and measurement of environmental and related human ecological effects" for use in the planning and appraisal stages of development projects. It is understood that there are plans to prepare a revised version of this publication but that this will not be completed for some time.

The World Bank is also issuing a series of "Sector Policy Papers", which contain useful guidance about environmental considerations. For example the paper on Forestry, issued in February 1978, gives examples of ecological disasters caused by uncontrolled commercial wood extraction and indicates what the Bank is doing to avoid such occurrences in forestry projects which it supports.

Future plans

From the above it can be seen that the World Bank has made a very deliberate effort to minimize adverse environmental impacts in its activities. Little information was obtained about plans to improve still further the arrangements for the future. Such plans should ideally be based on an objective analysis of the effectiveness of the present arrangements and it is understood that consideration is at present being given to the need for such an evaluation.

Some proposals for improvements are made in the LIED report mentioned above and these will doubtless be considered by the World Bank. The following suggestions are offered independently by the present consultant.

While all Bank staff interviewed were well aware of the Bank policy on environment, there was some suggestion that responsibility for carrying out this policy lay more with the staff of OEHA than with the operational staff. In the ideal situation, however, there should be no need for an OEHA as the environmental aspects of each project would automatically be taken care of by the staff directly responsible for preparing, appraising, reviewing, executing and monitoring the project. This leads to the

suggestion that further steps are needed to increase the environmental awareness of all World Bank staff. In the meantime it may be desirable to strengthen the staff of OEHA to enable them to give really adequate attention to all the projects which they have to review.

There is general agreement that the ultimate responsibility for the environmental aspects of a development project rests with the Government of the country in which the project is being carried out. The World Bank has already done a great deal to increase the environmental expertise available in developing countries but it is suggested that more could be done, for example through the Training Courses given in the Economic Development Institute.

Mention has already been made of the plans to revise the World Bank publication "Environmental, Health and Human Ecologic Considerations in Economic Development Projects". It is suggested that the World Bank should encourage and facilitate the widespread use of this publication throughout the UN system (as reported elsewhere in this report, the publication is almost unknown in FAO). In its present form the publication would not be suitable for use in trying to convince a Government minister about the need to take environmental factors into account in development projects - this was not its purpose. In view of its pioneering efforts in this field, it is suggested that the World Bank might take the initiative, together with UNEP and other UN organizations, in producing a shorter, less technical and less detailed publication which would be of interest to senior Government officials not directly concerned with the environment.

The last suggestion relates to what are known as "post-audits", whereby a project may be subjected to evaluation after it has been completed. Most frequently post-audits are made within a year or so of completion; only rarely are they repeated after an interval of 5 years or more. It is understood that post-audits do not always include specifically an environmental impact survey, although it is most likely that any serious adverse impact would be reported. As some environmental impacts only become manifest after a considerable passage of time, it is suggested that projects which could have major adverse environ-

mental impacts should be systematically subjected to post-audit 5, or even 10, years after completion. The post-audits should include specifically an assessment of the environmental impact of the project and, subject to the agreement of the Government concerned, the results of the post-audit should be made readily available to all serious inquirers - it seems that at present they are restricted to use by the World Bank and the Government concerned.

Other organizations

Present situation

The situation in other organizations engaged in operational field projects which could have major adverse environmental impacts is very similar from one agency to the other. In most cases there has been no formal policy decision on this subject and no directives have been issued to staff responsible for formulating and executing projects. Likewise there is no central unit (corresponding to OEHA in the World Bank) to ensure that environmental aspects are adequately considered.

Under these circumstances it might be expected that many projects would be planned and executed with complete disregard for the environment. In fact, however, this is far from being the case. A great deal of attention is being paid to the environmental aspects of development projects, especially to those aspects which are normally considered to be an intrinsic part of the project.

In most organizations it is left to the officer responsible for formulating and implementing each project to take appropriate steps for minimizing possible adverse environmental impacts. To some extent this may be deliberate policy but it may also reflect the absence of publicly-stated policy regarding the environment.

An argument frequently postulated was that developing countries are prepared to tolerate environmental damage as a price to pay for rapid development. They are afraid that giving full attention to the environmental aspects would result in serious delays and would increase, both the capital investment and the running costs of many projects. The role of international organizations is to help Governments and they should not insist

too much on environmental considerations if the Government is not interested.

Another argument against having more specific arrangements for looking after the environmental aspects of development projects was that any competent expert in irrigation, forestry, pest control etc. is fully aware of the environmental risks and would automatically take the necessary steps to minimize these risks. Any central environment unit would simply add to the delay in getting projects approved and implemented and would not significantly improve matters.

It is believed that the above views are representative of only a minority of the staff in these various organizations. Most persons interviewed recognized that there was considerable room for improvement. They realized that an expert in one specialized field might easily overlook a serious environmental risk in some other field.

Future plans

The consultant was not informed of any specific plans for future improvements in the arrangements for minimizing adverse environmental impacts of development projects. A policy statement on this subject is however being prepared in UNIDO. The following suggestions are offered for consideration by UNEP focal points.

Each organization should have a publicly declared policy on environmental aspects of development projects. In line with this policy, clear directives should be given to all staff concerned with the formulation and implementation of projects.

Guidance material on environmental and development should be made available to all headquarters staff and to experts recruited for carrying out field projects. Pending the preparation of tailor-made material for each organization, full use should be made of existing publications, in particular the World Bank publication "Environmental, Health and Human Ecologic Considerations in Economic Development Projects".

Maximum assistance should be given to developing countries

in the drafting of new environmental legislation, in improving existing legislation and in ensuring an adequate national infrastructure for enforcing such legislation.

More visibility should be given to the work already being successfully carried out to minimize adverse environmental impacts. Several organizations have issued reports on their environmental activities as such but this is not quite the same thing. What is needed is an adequate treatment of environmental aspects in reports on their development activities, in annual reports and in public relations' material.

Standards, norms and regulations

According to the terms of reference, the study should be concerned possibly with "activities related to norms, standards and regulations." From the information received, it would appear that only six ECB members are engaged in developing norms, standards and regulations the application of which could have major environmental impacts. They are ILO, FAO, WHO, ICAO, IMCO and IAEA. It seems simplest to discuss these organization by organization.

ILO

ILO develops and publishes conventions, recommendations, codes of practice and guides. Of these, only the conventions imply certain legal obligations for countries once they have been ratified.

Some of this material deals with improving the working environment, including: protection against noise; safety and health; dust control; permissible levels of toxic substances. Clearly, the ratification and application of such conventions, codes of practice etc. would be entirely beneficial to the working environment.

The only provisions which could have an adverse impact on the external environment are those relating to the removal of interior air pollution by ventilation and, even here, the effects are not likely to be major.

Further information is given in "Publications on Occupational Safety and Health" (ILO publication No. D.15/1978) and in "Overview of the ILO Programme for the Improvement of the Working Environment" (Document CIAM/W.E. 2/1) which contains annexes entitled "ILO Resolutions on the Working Environment" and "List of Conventions and Recommendations concerning Conditions of Work and Life". The ILO publication "The Impact of International Labour Conventions and Recommendations" is also relevant.

FAO

The only activity of FAO in relation to standards, norms and regulations is the project carried out jointly with WHO on the preparation of Codex Alimentarius. The Codex Alimentarius Commission (established in 1963) and its sub-

subsidiary bodies have elaborated to date some 130 international food standards, 900 limits for pesticide residues and 30 codes of practice. In accordance with the recommendations of the UN Conference on the Human Environment, emphasis is placed on the preparation of international standards for pollutants in food. Many developing countries are developing their own national food standards and often decide to accept Codex standards at that stage. The environmental impacts of Codex Alimentarius are obviously beneficial.

WHO

WHO is issuing guidance material, prepared by groups of experts, containing recommended criteria for chemical and physical agents which could have harmful health effects. These criteria are intended for consideration by Governments for incorporation in national standards. WHO does not formally adopt any international standards and the WHO guidance material has no direct legal implications.

A distinction is drawn between "criteria" and "standards"; the former lay down desirable limits whereas the latter may be lower, depending on the cost and the risk acceptable to Governments.

As of 15 March 1978, WHO criteria had been published for lead, mercury, oxides of nitrogen, nitrates, nitrites and N-nitroso compounds. Criteria for a further eight substances are due for publication in 1978 and work on criteria for 13 more groups of substances is in progress.

WHO is also engaged jointly with FAO in the work of the Codex Alimentarius Commission (See FAO) as part of the WHO Food Safety Programme.

The application of the WHO criteria and of national standards based thereon would have a beneficial impact on the environment. No major adverse environmental impacts are foreseen.

ICAO

ICAO has issued International Standards and Recommended Practices on Aircraft Noise as Annex 16 to the Convention on International Civil Aviation. In accordance with Article 38 of the Convention, Contracting States are obliged to notify ICAO of any differences between their national regulations and practices and the International Standards. The ICAO Council has also adopted a resolution inviting the attention of Contracting States to the desirability of using in their own national regulations, as far as is practicable, the precise language of those ICAO standards that are of a regulatory character.

ICAO has also published a circular on Control of Aircraft Engine Emissions, which is intended for use as guidance material as an interim measure until internationally agreed ICAO Standards and Recommended Practices can be developed to replace it.

The application of the contents of these two ICAO publications will clearly be beneficial to the environment.

IMCO

The activities of IMCO related to norms, standards and regulations cover an extensive range of work which is mainly concerned with:

- the promotion of maritime safety and efficiency of navigation including safety measures related to the construction and equipment of vessels;
- the prevention and control of marine pollution from ships and other craft by all ship-borne substances and by dumping of shore-based wastes, including a compensation for pollution damage and questions of liability;
- other technical and legal matters relating to shipping, such as tonnage measurement of ships and facilitation of maritime transport, etc.

To this end a number of important conventions and similar instruments have been adopted, as well as numerous Recommendations,

Codes of Practice and Guidelines.

Of the above, those most relevant to the present study are "Activities of IMCO relating to the prevention and control of marine pollution from ships". A report with this title was issued by IMCO in August 1977 (Misc(77) 5.E).

The practical application of the IMCO Conventions and regulations would undoubtedly have a considerable beneficial effect towards the protection of the marine environment, including coastal areas. No adverse environmental impacts are likely.

IAEA

According to Article X11 "Agency safeguards" of the IAEA Statute, the Agency has the responsibility "to examine the design of specialized equipment and facilities, including nuclear reactors, and to approve it only from the view-point of assuring that it will not further any military purpose, that it complies with applicable health and safety standards and that it will permit effective application of the safeguards provided for in this article" and "to require the observance of any health and safety measures prescribed by the Agency".

To this end IAEA has established a number of safety standards and has recommended safety measures and laid down procedures for their application. They comprise basic safety standards, which prescribe maximum permissible levels of exposure to radiation and fundamental operational principles, and detailed operational standards, which provide safety prescriptions or guidance relating to particular fields of operation.

For any project involving assistance by IAEA to a Member State, the agreement between the Agency and the Member State invariably requires the observance of relevant Agency safety standards or of other standards approved by the Agency. By Article X11 of its Statute, the Agency has the right to send into the territory of the recipient Member State inspectors to determine that the safety standards are fully complied with.

Insofar as the IAEA safety standards relate to radioactive material which could do serious harm to the environment if not

properly controlled, their enforcement is clearly a very important measure for protecting the environment. In this connexion it is of interest that a high percentage of all radioactive material transferred from a producing country to a non-producing country comes under the aegis of IAEA. This means that of all the members of ECB, IAEA probably has the greatest direct responsibility for environmental protection.

Proposals for second part of the study

In accordance with his terms of reference, the consultant has given consideration to the design of the second part of the study which has two components: in-depth analysis of a representative number of ECB members' activities; and development of guidelines on assessing and minimizing possible adverse environmental impact of ECB members' activities.

In-depth analysis

It seems probable that in referring to an in-depth analysis of members' "activities", the authors had in mind an in-depth analysis of a few selected individual "projects". This would in any case appear to be a desirable first step towards any in-depth analysis of activities as a whole.

As some of the most serious environmental impacts of a given development project may only become manifest several years after the completion of the project, an in-depth analysis of the effects of the project would have to be based on post-audits carried out after a sufficient lapse of time. Unfortunately such post-audits have only rarely been undertaken in the case of projects executed by ECB members. It might be necessary therefore at the outset of each in-depth analysis to arrange for a suitable post-audit to be made; otherwise the analysis might turn out to be of a theoretical nature in which some important practical aspects could be overlooked. This means that if the intention is to complete the in-depth analyses fairly quickly the selected projects should preferably have been completed several years ago. This might prove to be an unfortunate constraint as the projects may have been planned and implemented at a time when the executing agency was giving less attention to the environment than it does now.

As regards the organization of the in-depth analyses, it is suggested that each participating ECB member should make a selection from among its own completed projects and should itself carry out the analysis. An alternative would be for the analysis to be made by some outside body. There would be several advantages to the former arrangement, perhaps the most important

being that the staff of the agency in question would gain valuable experience in this kind of work. Another point is that, at least in some agencies, there is a lack of enthusiasm for visits from outsiders who inevitably take up a lot of the time of the permanent staff. Many of the data for each analysis would have to be collected by the permanent staff and they would probably derive more satisfaction from completing the analysis themselves (possibly with the assistance of a consultant) rather than handing over the data to an outsider.

In selecting the projects for in-depth analysis, it would be desirable to limit the choice to projects which potentially could have very serious environmental impacts. Each participating organization might well select three projects for analysis. The first would be one in which it seems *prima facie* that adverse environmental impacts were minimized by very careful advance planning. The second would be a project which received only the average amount of environmental attention. The third project would be one in which something presumably went wrong, for example because possible serious environmental impacts were overlooked in the planning stages or because the project was implemented against the advice of those responsible for the advance consideration of the environmental impacts.

Even if the analyses are carried out in the above way, there would still be some need for co-ordination. For example, it would be desirable for the selected projects to cover as wide a variety of categories of activities as possible. Furthermore, a certain degree of standardization of the methods used in the analyses would help to ensure comparability of the results.

Development of guidelines

According to the consultant's terms of reference, the present intention is that the guidelines on assessing and minimizing possible adverse environmental impacts will be based on the results of the above in-depth analyses. This would inevitably mean a considerable delay in the preparation of the guidelines.

In the consultant's view, the preparation of guidelines is a much higher priority requirement than the in-depth analyses.

Enough experience has been gained and enough guidance material, both national and international, has already been published to enable work on the guidelines to be started immediately. If it is decided to proceed with the in-depth analyses, it is suggested that the work on the guidelines should proceed in parallel - with interactions, of course.

Two different kinds of guidelines are probably needed. The first would be in the form of general guidelines covering all categories of development projects while the second would be a series of sectoral guidelines for different categories of activities - for example, one for agricultural projects, one for energy projects and so on. To a certain extent the World Bank "Environmental, Health and Human Ecologic Considerations in Economic Development Projects" - can be considered to meet the first of these needs - it should certainly be used for this purpose until something better is available. Its main limitation is that, while it gives useful checklists of environmental considerations to be borne in mind when assessing the possible environmental impacts of a project, it does not give much guidance on how to avoid, or at least minimize, such impacts.

Another useful international reference for the preparation of the general guidelines is SCOPE Publication No. 5 "Environmental Impact Assessment - Principles and Procedures". But here again little is said about how to minimize adverse impacts.

As regards the sectoral guidelines, it is understood that the World Bank is already preparing a series of such publications. The UNIDO series of reports on pollution problems and pollution control in various branches of industry are also relevant.

As several different organizations may be interested in any particular sector (some indications about such common interests are given earlier in the present report), there is clearly scope for inter-agency collaboration in the preparation of the sectoral guidelines - and, of course, the general guidelines. A useful first step would be for UNEP to draw up a list of the sectors to be covered and of the agencies interested in each sector. This list should be sent to all the agencies concerned for comments and for offers of assistance. A detailed plan of action could then be prepared in the light of the comments

and offers received.



S. Environment & Health *Be*

UNITED NATIONS ENVIRONMENT PROGRAMME
PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT



Télégrammes : UNITERRA, PARIS

Téléphone : 766.16.40
227.45.12

Télex : 650273

INDUSTRY AND ENVIRONMENT OFFICE
DEPARTEMENT INDUSTRIE ET ENVIRONNEMENT

17, rue Margueritte
75017 PARIS - France

RÉF. N° : 1453

June 2, 1978

Dear Jean,

Environmental Consultative Committee for the Pulp & Paper Industry

retained by OEHA

Please find enclosed the final version of the Record of the First Meeting of the Environmental Consultative Committee for the Pulp and Paper Industry, which incorporates the comments and corrections received up till May 22, 1978, by the Secretariat from members of the Committee.

I should like to inform you that Professor Waldemar JENSEN, President of the Finnish Pulp and Paper Institute, has been appointed as a UNEP consultant and will be advising and assisting the Secretariat on various activities related to the pulp and paper industry sector.

Preliminary preparations are going ahead for the Manual on Effluent and Emission Control and, subsequently, members of the Committee will be requested to provide information for this Manual and to comment on the draft.

Finally, I would like to remind you of the agreement that members of the Committee would send the Secretariat copies or summaries of existing legislation regarding environmental requirements in relation to siting of pulp and paper installations (see paragraph 33 of the Record of the Meeting).

With renewed thanks for your on-going cooperation and with kind regards,

Yours sincerely,

Léon de ROSEN
Director
Industry & Environment Office

encl. : 1

Mr. Jean M.H. TIXHON
Office of Environmental and Health Affairs
World Bank
Room E 1005
1818 H Street, NW
WASHINGTON D.C. 20433
U.S.A.

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06/20/78



S. Environment & Health *Be*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

June 2, 1978

OFFICE OF TOXIC SUBSTANCES

Mr. James E. Lee
World Bank
1818 H Street, NW
Room 1005
Washington, DC 20433

*Mr. Wallen called end of June.
I told him what we were
doing in Toxic Substances
(I mentioned Pb, Cd, As,
asbestos) and that he could*

Dear Mr. Lee:

always get in touch for additional

The Office of Toxic Substances (OTS) was established to implement Public Law 94-469 in assuring, among other goals, that adequate data should be developed concerning the effect of commercial chemicals on health and the environment. The development of effects data by testing is to be a responsibility of industry, however the OTS is expected to be fully aware of data needs and of all activities that relate to the collection of adequate information. *to*

One of our early needs will be for information on the international toxic substance (industrial chemical) activities and programs of other offices and agencies inside and outside of EPA. I have been asked to collect information on who does what in industrial chemical regulatory affairs. I am interested in the technical aspects of programs, not particularly in how agencies organize their efforts (only when that organization is important in determining technical aspects). *to*

If you work with WHO, IMCO, IAEA, OECD, PAHO, CCMS, IOC, IJC, ICAO, UNEP, CEC, ECE, IEA, or another international organization, I would like to know about the content of Toxic Substances Control Act (TSCA) related projects (transportation of hazardous materials, labelling, inspections, information sharing, etc.). If it is reasonable to release it, a copy of projects listing U.S. contact point or individuals would be helpful. We hope to institute a few well chosen new programs. I would like to discuss any possible overlap of interests with the responsible individuals. *Aug 8*

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Although the topic is broad, we are particularly interested in projects with relevance to TSCA. If you are not an appropriate person to assist me, would you refer me to that (these) individual(s)? I would be pleased to discuss this survey project with anyone. Whenever feasible, I'd like to discuss the projects, with the Project Officers. Please let me know if you refer action to someone else, so that I can follow up the contact as necessary. Telephone numbers of contacts and project officers would be useful.

Knowing that information for our purposes may not exactly jibe with your interests, I am particularly interested in the follow up activities. If you can refer my follow-up to more appropriate individuals, it would be helpful.

I will, of course, be pleased to provide anyone with a summary of the results of this effort. Please let me know if you would like to have a copy of the report.

Your cooperation would be most appreciated.

Sincerely yours,

Eene

I. Eugene Wallen

~~755-4803~~

755-4366

755-4863

426-9819

755-0300

Mr. Donald Pickering, AGR

June 2, 1978


Ragnar Overby, Office of Environmental and Health Affairs

Information Exchange Between Bank Staff Members Working in
Agriculture and Rural Development Projects

1. I was pleased to learn from you that Mr. Yudelman's subject memo of April 21, 1978, was developed in part as a result of our discussions. It came to me only a few days later. The deadline for comments ~~was~~ set at c.o.b. May 19 and here it is June 2nd already.

2. I shall not repeat any of our discussions here; only I would like to express my appreciation for your efforts and encourage the group to articulate, if possible, what the Agriculture and Rural Development Department would like to receive from us in the way of assistance.

The Bank's involvement in the sector is very significant and the environmental aspects of these efforts are everywhere to be found. But since that is well known to you and most of your colleagues, in what manner might our small staff, according to the group's findings, most effectively and operationally-useful communicate and contribute toward utilization of environmental resources to the maximum sustainable benefit?

 RO:amm

May 31, 1978

Vereinigung der Technischen
Überwachungs-Vereine
P. O. B. 1790
Essen
WEST GERMANY

Re: ACETYLENE


Dear Sirs:

We would like to receive from you the German safety standards (TRAC) for acetylene production and acetylene use. In the case of acetylene production we are interested in two processes; the first starting from calcium carbide and the second from partial oxidation.

In the case of acetylene use we are interested in knowing the standards used for transportation (pressure and diameter of lines, explosion arresters etc.) as well as those dealing with acetylene serving as a raw material to produce other chemicals. If the guidelines must be bought, please let us know. We will send you a formal order and payment check.

We thank you in advance for your assistance.

Very truly yours,


Jean M.H. Tixhon
Office of Environmental and
Health Affairs

cc: Dr. J. A. Lee, OEHA
Mr. D. Caplin, IPD

JTixhon/md

OFFICIAL FILE COPY

**WORLD HEALTH
ORGANIZATION**

1211 GENEVA 27 - SWITZERLAND
Télegr.: UNISANTE-Geneva



Tél. 34 60 61 Télex. 27821

**ORGANISATION MONDIALE
DE LA SANTÉ**

1211 GENÈVE 27 - SUISSE
Télégr.: UNISANTÉ-Genève

In reply please refer to: EHE
Prière de rappeler la référence: EHE

26 May 1978

Dear Mr Lee,

Re-organization of the Division of Environmental Health

I should like to inform you of the recent re-organization of the Division of Environmental Health which now consists of:

- a Director's office, strengthened in its capacity to carry out Division-wide planning and management in support of WHO's technical cooperation in the field of environmental health, and to ensure coordination at the global level;
- three structural units with assigned staff and headed by a manager with the titles "Environmental Technology and Support (ETS)", "Environmental Health Criteria, and Standards (HCS)", and "Global Promotion and Cooperation for Water Supply and Sanitation (GWS)".

In the Office of the Director, Mr R.E. Novick and Mr L.A. Orihuela have been assigned special responsibility for regional cooperation and Mr J.N. Lanoix for technical coordination.

The managers of the three units have been designated as follows:

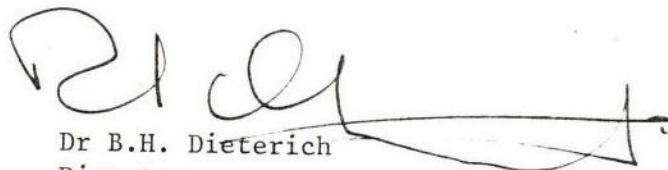
1. Environmental Health Technology and Support (ETS)
Mr P.A. Stevens
2. Environmental Health Criteria, and Standards (HCS)
Dr V.B. Vouk
3. Global Promotion and Cooperation for Water Supply and Sanitation (GWS)
Mr D.V. Subrahmanyam

Mr J.A. Lee
Office of Environmental and Health Affairs
World Bank
1818 H Street NW
Washington DC 20433
United States of America

.../...

To provide you with more information on the work of these three units, I am enclosing a copy of their "Statement of Tasks" which will help you in addressing correspondence.

Yours sincerely,

A handwritten signature in dark ink, appearing to be 'B.H. Dieterich', with a long horizontal flourish extending to the right.

Dr B.H. Dieterich
Director
Division of Environmental Health

UNIT :	Environmental Health Technology and Support	ETS
DIVISION :	ENVIRONMENTAL HEALTH	EHE

Statement of Tasks of ETS Unit

In contributing to the Organization's programme in environmental health, the unit will fulfil the following tasks:

1. Development and application of environmental health technology

- 1.1 to promote the development and application of reliable and safe technology in environmental health programmes and projects of priority concern, namely (a) the improvement of water supply and sanitation in rural areas and (b) the control and surveillance of hazardous agents in the environment which are related to rapid economic development;
- 1.2 to ensure that the proposed technology is consistent with practical planning, organization and management of environmental programmes;
- 1.3 to promote the application of such technology both in the country where it was developed and, through information dissemination, to other member countries;

2. Provision of supporting services

- 2.1 to promote and provide specialist inputs for technical cooperation in:
 - (a) developing policy, programmes and projects to improve WHO community services for supplying safe water and for collecting and disposing of liquid and solid wastes, with attention to operation and management of the system;
 - (b) assessing environmental conditions especially by establishing or improving programmes for the surveillance of air and water resources including marine waters, and by establishing an institutional framework to facilitate internationally agreed on methodology for monitoring and the global assessment of information produced;
 - (c) developing policy and programmes to improve environmental conditions, especially protecting air and water resources from pollution and other exploitation likely to cause adverse effects on human health; and
 - (d) strengthening or creating national institutions, both technical and operational, as well as the technical manpower needed to plan, execute and support national programmes in the various fields of environmental health;
- 2.2 to prepare guidance material on policies and methods for programmes and activities mentioned in (1) and (2.1) above;

- 2.3 to implement the World Bank/WHO Cooperative Programme as agreed in the Memorandum of Understanding of 1 October 1971, which stipulates types of field activities to be carried out according to periodically established plans of work;
- 2.4 to provide central services justified by economics of scale and organizational location, such as subcontracting arrangements and dissemination of technological information;
- 2.5 to expand the repertory of staff skills to deal with increasingly complex problems of environmental health and supplement staff expertise on various levels when in short supply;
- 2.6 to participate in collaborative work with other units of the Division of Environmental Health, other programmes of the Organization, and other agencies, as required.

Symbol

UNIT: Environmental Health Criteria and Standards HCS

DIVISION: ENVIRONMENTAL HEALTH EHE

Statement of Tasks of HCS Unit

In contributing to the Organization's programme in environmental health, the unit will fulfil the following tasks:

1. Environmental hazards

- 1.1 to promote, publish and disseminate documents on health criteria for environmental agents, including agricultural, industrial and consumer chemicals, and environmental pollutants;
- 1.2 to identify health hazards associated with technological advances in agriculture, industry, power production and other economic development activities;
- 1.3 to review, assess and promote appropriate methods for (a) laboratory testing of chemicals, (b) epidemiological studies of health effects of environmental agents, including monitoring of human exposure, (c) health risk evaluation, and (d) health related environmental impact assessment of economic development projects;
- 1.4 to provide technical cooperation in:
 - (a) the application of environmental health criteria;
 - (b) dissemination of information on air, water, and wastes standards;
 - (c) formulation of exposure limits and standards for environmental pollutants;
 - (d) regulatory control of chemicals;
 - (e) environmental health impact assessment of economic development projects;
 - (f) epidemiology of environmental hazards;
- 1.5 to promote radiation hygiene, including the strengthening of national radiation protection services, in collaboration with IAEA and other relevant international organizations, and the development and application of criteria, codes of practice and standards for radiation protection;
- 1.6 to develop, promote and coordinate international arrangements for mutual assistance in case of accidents involving hazardous materials;

- 1.7 to promote manpower development in the field of environmental toxicology and epidemiology, and radiation hygiene;
- 1.8 to maintain liaison, at the technical level, with other international organizations involved in environmental quality standards, control of environmental chemicals and radiation protection;

2. Food safety

- 2.1 to evaluate the toxic risk of chemicals added to, or found in food, including food additives, pesticide residues and other environmental contaminants, and to recommend acceptable or tolerable levels of intake for such chemicals; to assess the safety and wholesomeness of foods from unconventional sources, as well as that of foods to which novel methods of preservation or processing, such as the use of gamma radiation, have been applied;
- 2.2 to elaborate international food standards under the aegis of the Codex Alimentarius Commission, and to develop and publish codes of practice for the safe handling of foods;
- 2.3 to provide technical cooperation in:
 - (a) developing modern food laws for introducing progressive changes in the existing national food legislation that would reflect current principles of food safety, and the latest scientific achievements in this field;
 - (b) developing modern food control infrastructure including food inspection and facilities for food analysis;
 - (c) identification and resolution of specific health problems relating to food safety;
 - (d) the establishment or strengthening of the food contamination monitoring programme; and the collection, review, evaluation and dissemination of information on contaminants in foods;
 - (e) health education programmes for the general public;
- 2.4 to develop information services and mechanisms of intercountry cooperation in all aspects of food safety and control of food borne diseases; promotion of such cooperation;
- 2.5 to promote manpower development and training of food administrators, food inspectors, food analysts, specialists in food safety, and of health education of persons handling food;
- 2.6 to maintain liaison and cooperate, at the technical level, with other units at Headquarters, FAO and other organizations, involved in food safety.

WORLD HEALTH ORGANIZATION

UNIT : Global Promotion and Cooperation for
Water Supply and Sanitation

Symbol

GWS

DIVISION : ENVIRONMENTAL HEALTH

EHE

Statement of Tasks of GWS unit

In contributing to the Organization's programme in environmental health, the unit will fulfil the following tasks:

1. Monitoring of progress of implementation of the International Drinking Water and Sanitation Decade Targets

- 1.1 to assemble from governments, international, multilateral, bilateral and other funding agencies information on resources allocated to the water and sanitation sector and achievements made country by country, as well as information on constraints and their causes and specific information on successful programmes;
- 1.2 to analyse the information gathered and bring the information to the attention of the appropriate forums for review;

2. Liaison with bilateral agencies, "banks" and other funding agencies

- 2.1 in consultation with the Division of Coordination, to prepare and assemble systematically information related to the water supply and sanitation sector with particular reference to quantum and criteria of assistance, special interest countries, conditions attached to aid and technical cooperation, procedures of assistance, institutional and structural information, etc. on bilateral as well as other funding and technical cooperational agencies, including non-governmental organizations;
- 2.2 to provide these agencies with project information on specific country plans and programmes, on a continuing basis;

3. Cooperation with agencies involved in the Water Decade

- 3.1 to participate in the negotiations with other agencies with a view to promoting cooperative actions at all levels;
- 3.2 to prepare and collate documentation on financial and technical cooperation needs of developing countries, for collective review at periodic meetings of international, multilateral and bilateral development and funding agencies;

4. Support to ECOSOC and its subsidiary organs in relation to the Water Decade

- 4.1 in consultation with the Division of Coordination to maintain liaison with, prepare reports for, and attend meetings of the relevant organs of ECOSOC in relation to the follow-up actions of the UN Water Conference;

/...

5. ACC Sub-Committee on Water Resources (or its possible successor:
The Inter-Agency Water Resources Board)

- 5.1 to assemble and prepare information and documentation on water supply and sanitation as required for discussions at said bodies and to identify and address itself to coordination issues;

6. Internal support to WHO

- 6.1 to prepare technical material for the reports of the Director-General to the governing bodies of WHO;
- 6.2 through global support, to support and strengthen action at local level taken by Regional Offices;
- 6.3 to cooperate with Regional Offices in their liaison with other UN Agencies, Economic Commissions and bilaterals in respect of the Water Decade.

3- Env + Health



ORGANIZACION PANAMERICANA DE LA SALUD
Oficina Sanitaria Panamericana, Oficina Regional de la
ORGANIZACION MUNDIAL DE LA SALUD

525 TWENTY-THIRD STREET, N.W., WASHINGTON, D.C. 20037, E.U.A.

CABLEGRAMAS: OFSANPAN

REFERENCIA: EH/FAB/78

TELEFONO 223-4700

26 May 1978

Dr. James A. Lee
Director, Environmental and
Health Affairs
World Bank - Room E-1010
1818 H Street, N.W.
Washington, D.C. 20433

Dr. Witt
Sincere apologies
that we can't help
then this time but
want to next time
it for
Phone call 6 May 78

Dear Jim:

We are moving ahead with plans to prepare some manuals or guides on environmental impact assessment. You will recall we had a meeting on the subject some time ago to discuss how this might be accomplished.

Following a series of meetings with various consultants we have reached the point of putting something down on paper. In this connection we are having a meeting in Mexico City June 12-16 to consider material for a guide for decision makers and another of a more technical nature on watersheds.

I would like to extend an invitation to the Bank to participate in this endeavor. We would be interested in having input from you and Dr. Goodland for either of the tasks but most particularly for the technical guide on dams. This particular subject will be considered June 14-16.

Sincerely yours,

Frank A. Butrico, Chief
Environmental Health Division

FAB:amw

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INSTITUT DE LA VIE

PARIS 5^e, le 24 mai 1978
89, Bd Saint-Michel
Tél. : 033.94-86
Secrétariat : 033.60-51

Docteur James A. LEE
THE WORLD BANK
1818 H. STREET, N.W.

WASHINGTON D.C. 20433

U.S.A.

Cher Monsieur et Ami,

Je suis heureux de vous annoncer que Monsieur William T. MASHLER vient de m'envoyer une lettre datée du 17 mai 1978, dans laquelle il écrit :

"I am, indeed, very to learn that agreement has been reached for holding a meeting in Versailles later this year or early in 1979, and I would like to assure you that the United Nations Development Programme is fully prepared to endorse this initiative, and to participate in it on the same basis as WHO and the World Bank. We are most grateful to you for your helpfulness in this important matter, and I am looking forward to further co-operation with you and your colleagues. I will, of course, as soon as the World Health Assembly has come to an end, be in close touch with my colleagues in WHO and the World Bank to see what further steps need to be taken in our joint effort."

Veuillez agréer, Cher Monsieur et Ami, l'expression de mes sentiments les plus cordiaux.

Très Sincèrement

M. Marois

M. MAROIS

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MAY 24 1978

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Dr. James A. Lee, Office of Environmental and
Health Affairs

May 23, 1978

J. Tixhon, Office of Environmental and Health Affairs

Environmental Affairs in the World Bank

Comments of the Contents

III - A. Environmental Aspects of Bank Projects

In the industrial sector (IBRD Ind. Projects Department and IFC) every project is reviewed in the fields of environment as well as workers' safety and occupational health. Only the odd DFC project is reviewed from time to time when ecological risks are serious (example: Morocco caustic-chlorine plant using mercury cells) and few DFCs have been contacted to discuss with them a possible common program. A more systematic approach should be taken for the simple reasons that DFC projects are usually aimed at medium and small industry; in these sizes of plants, pollution per unit produced is usually higher than in large modern plants, and problems of occupational safety and health are generally more severe.

III - B. Evaluation of Bank Experience

In industrial projects, the Bank issues guidelines to keep the pollutants out of the environment or reduce their amount to innocuous levels. In the vast majority of cases, the project sponsor accepts the guidelines constraints and the plant is built accordingly. But, too often, the results are not at the level of expectations. This is due to poor operation not only of the pollution abatement equipment, but even more to poor operation of the process itself. It would thus be advantageous that in each industrial project handled by the Bank, a training component be included. The training should involve the equipment-operators, the maintenance personnel, the foremen, the laboratory staff and finally the middle-and higher-management. This would result in decreased pollution and would even be more important than any guideline because of the fact that if the process equipment runs poorly, the pollution abatement equipment is overloaded and the effluent discharges are greater than forecasted. The training component would offer the additional advantage of increasing actual profitability by cutting down on losses of raw materials, in-process materials, utilities and finished products.

III - C. Technical Assistance

Technical Assistance is given to project sponsors, to international agencies and to governments. The best example is the town of Kosovska Mitrovica. We were called there in March 1976 to help solve

what appeared to be a problem of SO₂ pollution which, in fact, was much worse and also involved heavy metal toxicants like lead and arsenic. The OEHA has awakened the attention of the Yugoslav authorities and by putting pressure on the industrial polluter has succeeded in cutting lead and SO₂ pollution in half. The problem is far from over and cleaning the lead smelter as well as the town will require combining an industrial project with an environmental one.

V. Future Directions - Measuring and Monitoring

The World Bank is project-oriented and the OEHA should go on giving first priority to projects and improve its project work. The present guidelines give the amount of pollutants tolerated but do not specify how they will be measured or monitored. As results differ sometimes considerably depending on measures or analysis, the discharge may be approved by one method and rejected by the other. Sponsors are aware of this and, up to now, OEHA has let them take the most favorable technique. Monitoring can be continuous or intermittent. Industrial equipment being subject to wear and to breakdowns, the amount of pollutants discharged is never constant. To avoid penalizing or shutting down a process, one has to allow for infrequent excursions over a certain average level. Each discharge should then have two values; a time-weighted average (TWA) value, and a maximum value which can never be reached. This is only done in a few World Bank guidelines. Moreover, we leave the sponsor absolutely free as far as monitoring is concerned. The present OEHA resources prevent any work in this field.

V. Future Directions - Natural Resources and Energy

One easy way to decrease pollution is to decrease the amount of raw material and energy being used by industrial unit produced. This important problem has not been addressed by the OEHA and the Bank. In fact, because of the pressure of keeping the investment costs down, projects are often financed to minimize the investment cost to the detriment of natural resources and energy consumptions.

cc: Mr. R. Goodland, OEHA
Mr. R. Overby, OEHA
Mr. H. Reitze, OEHA
Mr. R. Kuhlthau, EWT

JTixhon/md

May 22, 1978

Mr. James Schinner
Room 2-D-17
Bechtel Corporation
15740 Shady Gove Road
Gaithersburg, Maryland 20760

Re: Power Plant Environmental Guidelines

Dear Mr. Schinner:

In confirmation of our telephone conversation of May 19, I send enclosed the following guidelines: Sulphur Dioxide, Dust, Effluents, (general and liquid) Power Plants (Coal and Fuel Oil).

When we receive the composition and flow of each proposed effluent, we then accept them or discuss changes.

For non-recirculating cooling water there should be no change in composition and the discharge temperature should be less than 3°C higher than the receiving body and below 28°C.

The recirculating cooling water, should meet the following specifications when discharged.

Cl	less than 0.2 mg/l
Cr	no discharge
TSS	15 mg/l
O & G	10 mg/l
P	should not cause eutrophication of receiving body
pH	6 - 9
Temperature	below 28°C
Temperature Δ	no more than 3°C over receiving body.

The cooling water intake should be designed to prevent any small fish to be trapped on the intake filter.

Slag disposal should be described as well as any other effluent (human sewage - water treatment resins regeneration etc.).

Mr. James Schinner

- 2 -

May 22, 1978

I hope that the preceding has answered most of your questions.
If you need more information please feel free to get in touch with me.

Very truly yours,

Jean M.H. Tixhon
Office of Environmental and
Health Affairs

Enclosures

cc: Dr. J. A. Lee

4 spares

JTixhon/md

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May 11, 1978

Dear Mr. Stein:

Thank you for your letter of April 4, 1978, enclosing a copy for our comments of the final draft report on the study entitled: "Banking on the Biosphere--Multilateral Aid and the Environment: The Environmental Policies and Practices of Nine Multilateral Aid Institutions," prepared by the IIED Assessment Project Team and dated March 1978.

The document has been carefully reviewed within this office. We concur with the statement in the Introductory Note that the study "is more in the nature of a survey." As such, we feel that Chapter III provides a fair overall exposure of some of the major environmental policies and practices of the World Bank.

Comments on the sectoral policies and activities of this institution with regard to human settlements, energy, water resources, and forestry would of course have to be sought elsewhere in the Bank, as appropriate.

Whatever perspectives, opinions and/or suggestions (as opposed to factual information) expressed therein, although noted with great interest, are and will remain to be the privilege of the writer.

With our best wishes for a useful publication.

Sincerely,



Dr. James A. Lee
Director
Office of Environmental
and Health Affairs

Mr. Robert E. Stein
International Institute for
Environment and Development
1302 Eighteenth Street, N. W.
Washington, D. C. 20036

cc: Messrs. R. Overby, OEHA
J. Tixhon, OEHA
R. Goodland, OEHA
M. Burney, IRD

 HR/ag

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WORLD HEALTH
ORGANIZATION



ORGANISATION MONDIALE
DE LA SANTÉ

1211 GENEVA 27 - SWITZERLAND
Telegr.: UNISANTE-Geneva

Tél. 34 60 61 Télex. 27821

1211 GENÈVE 27 - SUISSE
Télégr.: UNISANTÉ-Genève

In reply please refer to:

Prière de rappeler la référence:

125 980
236 286
422 862

MR W.T. MASHLER
UNBEVPRO

REFERENCE YOUR TELEPHONE CONVERSATION WITH JAMES LEE SEVENTEEN MAY
GLAD CONFIRM POSITIVE DISCUSSIONS WITH MAROIS AND LEE IN PRESENCE
ZAHRA COMMA HOWARD USAID AND WILLIAMS OF WELLCOME FOUNDATION STOP
NO FORMAL DECISIONS REACHED BUT MAROIS ENCOURAGED BY US GO AHEAD HIS PLANS
MEETING ORGANIZATION COMMITTEE BEFORE END 1978 STOP ASSUME UNDP AND BANK WILL
RESPOND POSITIVELY MAROIS REQUEST FOR JOINT SPONSORSHIP BY THE THREE AGENCIES
HIS CONFERENCE STOP WHO SUPPORT ALREADY OBTAINED HOWEVER FINANCIAL ASSISTANCE
EXCLUDED STOP MAROIS SUGGESTS THAT IN ADDITION TO HIS SCIENTIFIC ADVISORY GROUP
THERE BE ESTABLISHED LIAISON COMMITTEE COMPOSED YOURSELF COMMA LEE AND ZAHRA
OR ME AND PERHAPS OTHERS TO ADVISE HIM ON ADMINISTRATIVE AND ORGANIZATIONAL
MATTERS RELATED TO CONFERENCE STOP NO OBJECTIONS AS FARAS WHO PARTICIPATION CONCERNED
STOP TRUST THAT MAROIS WILL CONTACT YOU FURTHER AND KEEP ALL THREE ORGANIZATIONS
INVOLVED INFORMED OF PROGRESS STOP REGARDS FLACHE UNISANTE

19.5.78

Dr S. Flache
ADG

Dr S. Flache
ADG

cc: Dr James A. Lee, World Bank

Dr A. Zahra, CDS



Please address all communications to
C. A. COCHRANE, Chief Executive
Tel. (Paris) 963.43.90

Addresso
26, rue de Tourville, B 1
78100 St-Germain-en-Laye, France

Ref.: CAC/78/N.4

15th May 1978

Mr. J. Tixhon,
World Bank,
Washington, D.C.
U.S.A.

Dear Mr. Tixhon,

Our Annual Meeting this year will be held in Toronto at the Sheraton Centre Hotel on 26th and 27th June. As you can see from the enclosed ^{note} programme, the sessions on 26th June are internal ICIE business meetings but the 27th June is a general discussion session on Environmental Impact Assessment.

It would give us great pleasure if you, or one of your colleagues, could participate in the session of 27th June, joining us at 18.30 hours on the evening of 26th June at the cocktail reception.

^{note}
I also enclose a hotel reservation card for use if you wish to stay at the Sheraton Centre.

Yours sincerely,

Alice Cochrane

C.A. Cochrane
Chief Executive

Encls.

mrc

mtc

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Encls.

C.A. Cochrane
Chief Executive

Alfred Cochrane

Yours sincerely,

I also enclose a hotel reservation card for use if you wish to stay at the Sheraton Centre.

reception.
Joining us at 18.30 hours on the evening of 26th June at the cocktail
your colleagues, could participate in the session of 27th June,
It would give us great pleasure if you, or one of

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ICIE business meetings but the 27th June is a general discussion
from the enclosed programme, the sessions on 26th June are internal
at the Sheraton Centre Hotel on 26th and 27th June. As you can see
Our Annual Meeting this year will be held in Toronto

Dear Mr. Tikhon,

U.S.A.
Washington, D.C.
World Bank,
Mr. J. Tikhon,

Ref.: CAC/78/N.4

Tel. (Paris) 963.43.90
C. A. COCHRANE, Chief Executive
Please address all communications to

78100 St-Germain-en-Laye, France
26, rue de Tourville, B 1
Address



International Centre

Industry and environment

2-Environment & Health

15th May 1978

May 15, 1978

Dear Mrs. Mink:

Thank you for your invitation of 28 April to participate as an observer at your conference on the important topic of tropical deforestation. Subject to approval, I would like to attend and, in particular, to outline what I perceive to be the potential options for development in such fragile ecosystems. The ranking or "prioritization" of development options can clarify much thinking on this topic.

Yours most sincerely,

RG

Robert Goodland
Office of Environmental
and Health Affairs

Mrs. Patsy T. Mink
Assistant Secretary
U. S. Department of State
Oceans and International
Environmental and Scientific Affairs
Washington, D. C. 20520

cc: Dr. James A. Lee

RG/ag

May 15, 1978

Dear Dr. Symonds:

Thank you for your letter of 18 April to Dr. Lee and for the program of your Sahel meeting. It is most encouraging to hear from your letter that your planning is proceeding so successfully. We share your views on the importance of this topic and send all good wishes for a productive outcome for your meeting.

Concerning your future work in Haiti, you may want to correspond with the Bank's Loan Officer for Haiti, George Homsí (Room C-908, same address) to find any commonality of interests.

Please convey my warm wishes to John Hemming.

All best wishes,

Sincerely,

RG

Robert Goodland
Office of Environmental
and Health Affairs

Dr. Tim Symonds
1 Denning Road
London NW3
England

cc: Dr. James A. Lee

RG/ag

May 12, 1978

Mr. Robert J. Harvey
Consulting Chemical Engineer
AMAX Engineering and Management Services Co.
Two Greenwich Plaza
P. O. Box 1705
Greenwich, Connecticut 06830

Dear Mr. Harvey:

Thank you for your letter of May 2, 1978 describing the system being contemplated to develop a meteorological data base in BCL, Botswana. As I told you on the telephone I expressed some doubt that such a system can be satisfactorily maintained in Pikwe. We note that it is in fact the most economical of the solutions being considered. We also note that the computerized results should not present any special problem as the computer is pre-programmed and as Pikwe already has a computer in operation for accounting purposes.

In conclusion we agree that the system will be sufficient for a weather monitoring station. We would like to stress however that whatever the meteorological results, the main problem facing Pikwe is due to the magnitude of low level gas and particulate emissions. These emissions in turn are a consequence of poor operation of the existing equipment and using part of that equipment to do things it was not designed to do.

We hope that in parallel with the installation of the meteorological equipment it will be possible for BCL to decrease these low level emissions to an acceptable limit.

Very truly yours,

J

Jean M.H. Tixhon
Office of Environmental and
Health Affairs

cc: Dr. J. A. Lee, OEHA
Mr. H. Cash, IPD
Mr. A. Hilton (with copy of Mr. Harvey's letter)

JTixhon/md

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Office of Environmental and Health Affairs
Files
H. Reitze, OEHA

May 12, 1978

IDB Seminar on Environmental Management May 9, 1978

Attached are: (1) an agenda; (2) a "Services Guide" brochure of CETESB (Brazil - Sao Paulo); and (3) the IIED's annual report for 1976-77. What follows are my personal impressions and main recollections.

I. MORNING SESSION

The morning session was dedicated to lectures on the relationship between environment and development. The session was chaired by Mr. Jose D. Epstein, Manager, Plans and Programs Department, IDB. There were three different presentations on this subject:

(1) The first one, was that of Ambassador Robert Blake, International Institute for Environment and Development, on the international aspects of environmental management. His presentation was articulate, sharp, and very much to the point. He expressed high regard for the IDB's environmental capability and conscience. He suggested that international financial institutions ought to transform themselves into development institutions, thus emphasizing the maximum importance of economic development when speaking about the environment. He pointed out that the "pressure of populations on resources" (Particularly rural resources) was the single most devastating cause of environmental degradation. A "total solution", he warned, is not achievable, therefore, we must proceed on a step-by-step basis.

He emphasized three main concepts:

- (1) A "sustainable development"; development for all peoples covering the long-term;
- (2) The meeting of basic human needs, or meeting the needs of the poorest among the poor;
- (3) The integration of the environment within economics. Environmental considerations must never be isolated from economic development considerations.

The primary responsibility, he said, lies within sovereign nations. International development institutions must begin a dialogue with developing countries in order to help understand and interpret the economic implications of some fundamental environmental problems: This, he says, is a specific moral responsibility of all economic development institutions.

He suggested that the IDB adopt the following criteria as requirements for success:

- (1) To strive for "simple" and "flexible" approaches and procedures;

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May 12, 1978

- (2) To integrate environmental factors at every step along the project cycle;
- (3) To share insights and knowledge on a wide institutional basis;
- (4) To arrange for cooperation and coordination of strategies between institutions; and
- (5) To obtain a formal top management commitment to their environmental policy.

(2) Mr. Alfonso Santa Cruz, Director, International Center for Formation of Environmental Sciences for Spanish-Speaking Countries, spoke at length on the environmental problems in Latin America. I considered his intervention to be uninformative and irrelevant to the immediate task at hand. The problems he mentioned seemed to me as extracted literally from UNEP's Environmental Program Document. He then proceeded on to a boring recitation of some 30 different courses offered by CIFCA (Centro Internacional de Formacion en Ciencias Ambientales) reflecting this outlook.

(3) Mr. S. H. Sejenovich, Regional Advisor for Economic and Environmental Planning, UNEP Regional Office, made a technically oriented presentation also on behalf of UNEP-Mexico which was informative and interesting but out of line vis-a-vis the stated purpose of the seminar.

(4) The next morning presentation was made by Mr. Henrique Hirshfeld, Director, Companhia de Tecnologia e Saneamento Ambiental, Sao Paulo. His presentation was accompanied with slides and a film to be shown on the following morning. Although interesting from the perspective of a Brazilian Loan Officer, I found it suspiciously circumscribed to "pollution control technology". It was a veiled commercially-oriented pitch, and, therefore, also an extralimitation of the stated objectives of the seminar.

II. AFTERNOON SESSION

The afternoon session was chaired by Mr. G. Moore, Manager, Project Analysis, IDB, with a panel discussion on the subject of "Organizational Response to Environmental Management." This session started out with roughly 50 participants, about half the participants present at the morning session.

(1) Dr. James A. Lee, Director, Office of Environmental and Health Affairs, World Bank, made the first afternoon presentation. He was introduced by Mr. Moore as "perhaps the single most knowledgeable and experienced person in the field present here." Dr. Lee started with the question, "Why are we still discussing this question of environmental development now in 1978... 6 years after the Stockholm Conference on the Human Environment?", which turned out, according to unofficial feedback, to be the punch line of the day. This theme, provided enough fuel for a series of pointed observations-suggestions more directly addressed to the IDB's search for its own genuine environmental policy identity. Along these lines he emphasized the need to include the "human element" in all environmental considerations so that our focus then

becomes the "human environment." He suggested that any environmental policy adopted by the IDB should be enforced just like any other Bank policy, thereby insuring a strong institutional (as opposed to personal) commitment to it; whichever type of organizational structure is devised and entrusted with its implementation. It must play an active role in the identification, preparation, appraisal, implementation and supervision of Bank projects. A credible environmental policy must not be viewed as "optional." It must be flexible in its response to perceived needs; it must actively seek adequate answers to questions of standards, applicability, etc.; it must be held "accountable" as well as given appropriate resources, just like other essential aspects of Bank's projects. Feedback mechanisms (supervisory, monitoring, etc.) should be utilized extensively to constantly improve the quality of activities. Experiences ought to be shared with other United Nations organs and NGO's concerned with human health and the environment. Such policy, finally, must be responsive to the needs of member governments with regard to institution building, training, legislation, etc. Finally, he added that he saw here a clean line of responsibility for UNEP in assisting country governments in identifying some of the problems and the appropriate tools of coping with them, including, particularly, environmental education/natural resources management.

(2) The next presentation was made by Mr. Gerald R. Weing Office of Resource Development, Latin American Bureau, U. S. Agency for International Development. He confessed himself as a non-environmental expert but deeply interested in the subject. He explained to the audience that current AID procedures were forced upon the Agency by pressure brought to it from the outside. These procedures basically are:

(1) A judgment is needed to establish whether a project has an environmentally "foreseeable significant impact" (FSI). If the answer is in the positive then,

(2) An "environmental assessment" (EA) is needed. If there is a likelihood of a significant impact, particularly if it involves more than one nation, then,

(3) An "environmental impact statement" (EIS) is called for. The guidelines on procedures for these statements appear to be rather burdensome and inflexible. In 80% of the cases, however, the FSI yields a "no foreseeable significant impact" result.

Consultants were used extensively for any further in-depth studies. Delays along the expected project itinerary are troublesome. Generally, the finds that AID projects when modified in favor of environmental considerations, ultimately, do so because of economic rather than environmental reasons. He warned the IDB to beware of detailed and inflexible environmental guidelines and regulations. Moreover, he strongly recommended that environmental analysis be tightly integrated into the overall economic analysis of the project. Finally, he expressed the desirability of moving in the direction of preparing "Country Environmental Profiles", as he believed the UNDP is now doing. (This desirability" had also been mentioned to Messrs. Overby, Goddard and myself by Mr. Bill Ackerman, AID's Environmental Officer for the Asia Bureau.)

May 12, 1978

(3) Mr. Kirk Rogers, Director, Program of Regional Development, Organization of American States, made what I thought was a well-balanced presentation, touching upon three main areas of constant requests submitted to the Organization of American States by its member countries. These are:

(1) How to adopt reasonable environmental objectives and policy with a consistent set of specific project guidelines.

(2) How to systematically incorporate environmental considerations in economic development project proposals.

(3) How to adequately integrate and plan for the management of a country's natural resources.

He provided a few suggestions mainly intended for the IDB, but applicable to other institutions:

(1) To come up with a clear-cut policy statement, and avoid shy and timid policy formulations.

(2) To use these policy guidelines starting at the earliest possible stage of project feasibility studies.

(3) To carry out "audits" of project implementation.

(4) To lend financial and technical support to training within countries in order to enable a consistent and appropriate implementation of the policy.

(5) To insure an adequate interchange and dissemination of information, both intra- and inter-agency.

(4) Mr. Robert Mathe of the Project Analysis Department of IDB made a strongly-worded, tough-looking, quasi-theatrical presentation, in my opinion. I must give his performance the lowest credibility rating of all the seminar presentations.

He began by confessing to know little about ecology or environment but to be a concerned "generalist", to have joined the IDB right around the time of the Stockholm furor (1972). He adamantly pounded the idea that the real picture of the IDB was not nearly as bleak as the previous speakers would lead the audience to believe.

He made three main points:

(1) That the IDB has an environmental program. That this policy basically consists in allowing the Bank's management to decide about environmental considerations. This, he said, was the right way to go.

(2) That the IDB has some specific environmental standards. That they are included within other sectoral guidelines of the Bank. Admittedly, he said, they are quite broad and general, but that between the AID's

May 12, 1978

extreme position and that of IDB, a balanced middle point must be found somewhere.

(3) That enough environmental expertise could be readily found within the Project Analysis Department (PRA), to the extent that an environmental adviser could be easily picked out from its existing staff.

Finally, he agreed that there should be "top level attention" given these problems, and that the policy paper now being drafted should go to the IDB Board soon.

III. OPEN DISCUSSION

What ensued was a period of open discussion based upon the previous panel presentations. Three questions seemed to concentrate the attention of the participants:

(1) A question by Mr. Enciso, Executive Director of Paraguay, Uruguay, and Bolivia, expressing much concern on the ultimate environmental effects of the number and size of existing and upcoming dams being built and planned around the Plata River Basin. The question was treated somewhat superficially, in my judgment, by Mr. Sejenovich, addressing irrelevant technicalities from a book entitled: "Ecotécnicas del Tropico Humedo" (Ecotechniques of the Humid Tropical Forest).

(2) The second question was asked by Mr. Patricio Millan, IDB, about ~~whether the~~ Banks were willing to finance the higher project costs resulting from environmental protection. The question was addressed by Dr. Lee, underlining that the IBRD stands ready to finance increased project costs when environmental management measures are deemed appropriate for the project's success. Furthermore, he said that the World Bank also stands ready to consider financing "purely environmental" projects, and has done so.

(3) The third question was from Mr. Gonzalo Biggs, asking whether there was anything the Banks could do as far as institutional building and legislation problems were concerned. A number of panelists intervened. Dr. Lee suggested that he felt this was a field of real responsibility for the United Nations Environmental Programme, namely, to assist LDC's in their own institution building and technical training for the management and protection of their own natural resources.

cc: Dr. Lee, with attachments
Mrs. Boskey
Mr. Burney
Mr. Goodland
Mr. Tixhon
Mr. Overby

May 11, 1978

Dr. Jyoti Parikh
International Institute for
Applied Systems Analysis
2361 Laxenburg
Schloss Laxenburg
Schloss Laxenburg, AUSTRIA

Dear Dr. Parikh:

This is to acknowledge receipt of the revised copy of your report on Energy and Development. I would like to clarify how we plan to handle the question of publication and distribution of this report.

First, we will issue it as a publication for Bank staff, which may be made available outside the Bank on an ad-hoc basis. This publication will indicate, as is done with most of the Bank's own staff research, that:

"This paper is one of a series issued by the Energy, Water and Telecommunications Department for the information and guidance of Bank staff working in the power, water and wastes, and telecommunications sectors. It may not be published or quoted as representing the views of the Bank Group, and the Bank Group does not accept responsibility for its accuracy and completeness."

Second, if IIASA, yourself or others wish to publish the report for the general public, we have no objection provided it says:

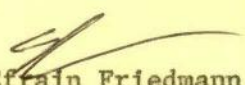
"This work has been carried out with the partial support of the World Bank. The views and interpretations in this document are those of the authors and should not be attributed to the World Bank, to its affiliated organizations or to any individual acting in their behalf."

We have no problem to you also indicating that it was done also with IIASA's support.

Third, if you publish articles or shorter papers using the results of the research done for this report, you should also include a disclaimer similar to the one indicated above.

I hope the above is clear and satisfactory to you and thanks again for your assistance and interest.

Yours sincerely,


Effrain Friedmann
Assistant Director
Energy and Fuels

Energy, Water and Telecommunications Department
OFFICIAL FILE COPY

May 11, 1978

Dear Mr. Scott:


Your letter to Dr. James A. Lee of May 3, 1978, enclosing an invitation to participate in the II Ibero-American Congress for Environment to take place in Bogata from September 4 to 8 has been received in this office. In order to adequately evaluate our possible participation in this event, we would appreciate it if you could provide us with the following additional information:

- (a) Background on INCITEC (sponsors) and its activities.
- (b) Precise description of purpose and scope of the meeting.
- (c) What is expected from us if we decide to participate (i.e., language requirements, papers, registration fees, etc.)

We will inform you of our decision soon after receiving this material.

Thank you, in advance, for your cooperation in this matter.

Cordially,

 Hernan Reitze
Office of Environmental
and Health Affairs

Mr. Ian Scott
Resident Representative
Banco Mundial
Carrera 10 No. 24-55
Piso 17
Bogato, D. C., Colombaa

cc: Dr. James A. Lee (To be circulated to Messrs. R. Overby, J. Tixhon,
R. Goodland)



The 6th Technicon International Symposium on
Environmental Changes and Biological Response

Sextum Technicon Inter Gentes Symposium de
Ambientalis Mutationibus et Biologicis Responsis

July 7~9, 1978, International Convention Hall, Sasakawa Hall, Tokyo

10th May, 1978

Mr. James A. Lee
Environmental and Health Adviser
Office of Environmental and Health Affairs
World Bank
1818 H Street N.W.
Washington, D.C.
20433 U. S. A.

Dear Mr. Lee,

We take pleasure in acknowledging your letter of 25th April and 27th April together with your abstract. We are glad to hear that you are preparing manuscript in due course.

Incidentally, could you please let us know your travel schedule as we said in our letter of 7th April so that we can arrange your airflight and hotel accommodations to your satisfaction. At the same time, please note that expenses for a round trip at economy class, hotel accommodations and your stay in Tokyo is supposed to be borne by us. For your confirmation, we enclose FORM here again, and return it to us as soon as possible.

We are looking forward to hearing from you soon.

Yours faithfully,

K. Kawasaki

Preparatory Committee for The 6th
Technicon International Symposium

Encl:

c.c.: World Bank, Tokyo Branch

Preparatory Committee for The 6th Technicon International Symposium

Hazama Building, 5-8 Kita-Aoyama 2-chome, Minato-ku, Tokyo 107 Japan

Telephone: (03)-405-7311 Telex: 242-3592 TECHJA J Cable Address: AUTOANAL TECH

RECEIVED

1978 MAY 15 PM 1:39

INCOMING MAIL UNIT

HAND

APPLICATION FORM
=====

This is to serve as your application for airflight and accommodation, which shall be arranged by Japan Travel Bureau, Inc. (J.T.B.) for you, with understanding that your round trip flight at economy class and hotel accommodations shall be all borne by ourselves but not for companion(s) if any.

Please fill in (in block letters) and return to:

Preparatory Committee for The 6th Technicon
International Symposium

Hazama building
5-8, Kita-Aoyama 2-chome
Minato-ku, Tokyo
107 JAPAN

Name : Dr. James A. Lee

Mailing Address: The World Bank
1818 H Street, N.W. Washington, D.C. 20433

Name & Address : The World Bank
of Institution 1818 H Street, N.W.
Washington, D.C. 20433, USA

Your Schedule of Departure and Arrival	
Departure	<u>5</u> Day <u>July</u> Month, <u>Honolulu</u> Airport
Arrival in Japan	<u>5</u> Day <u>July</u> Month, Tokyo Airport
Departure from Japan	<u>21</u> Day <u>July</u> Month, Tokyo Airport
I will be accompanied by <u>Mrs. Marion Lee</u>	

Hotel Accommodation		IMPERIAL - Confirmed	Reservati
Type	Number of Rooms	Period of Stay	5 days
Twin	1	Check in :	July 5, 1978
Single		Check out:	July 10, 1978

May 10, 1978

Dear Dr. Brancher:

Thank you for your letters of January 18 and April 27, 1978, to Dr. James A. Lee, Director of this Office.

Due to other commitments I was unable to write to you earlier. Please accept my apologies for this unwanted delay. As to information about the Bank's incorporation of the environmental dimension into its economic development activities I am enclosing: (a) Environment and Development, (b) Environmental, Health and Human Ecologic Considerations In Economic Development Projects, and (c) Forestry, which is the Bank's most recent sector working paper. These publications will, I hope, provide you with sufficient general information.

We are delighted to hear you are writing a book on the environmental aspects of development. We fully share your views concerning the importance and relevance of this topic and we are pleased to hear that UNESCO is encouraging your efforts. Although we cannot contribute to this endeavor at this time, we look forward to reading this publication with great interest.

All best wishes for a useful book.

Sincerely,

Hernan Reitze
Office of Environmental
and Health Affairs

Dr. D. M. Brancher
The University of Aston
in Birmingham
Gosta Green
Birmingham B4 7ET
England

Enclosures

cc: Dr. James A. Lee (To be circulated to R. Overby, R. Goodland, J. Tixhon)

HR
HR/ag

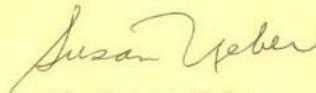
May 10, 1978

Dear Mr. Rattay:

Per our telephone conversation of this afternoon, enclosed please find a copy of the medical equipment list which we discussed. In order to budget the project, we need an average unit cost (US dollars) for each item. If you could gather the information by early next week, I would be very grateful. As it might be simpler to dictate the prices to me over the telephone, my number is (202) 477-6662.

Again, thank you for all of your assistance.

Sincerely,



M. Susan Ueber
Public Health Officer
Office of Environmental
and Health Affairs

Mr. Laurence Rattay
Research Associate
Department of Medical Instrumentation
American Medical Association
525 North Dearborn
Chicago, Illinois 60610

Enclosure

cc: Dr. James A. Lee

MSU/ag

Microscopic Binoculars
Automatic Spaining Plant
Kettle Summerson Calorimeter
Automatic Knife Sharpner (for Histopathology)
Cantrifuge Table Model
Water Bath (5cc)
Incubator (37c) Table Model)
Flamephotometer
Instrument Sterilizer Electricity
Portable Highpressure Sterilizer
Hot Plates
Suckers
Trolly Stretcher
Wheel Chair
Electric Kettle
Food Trolley
Stainless Steel - Cannister
Stainless Steel - Gallipots
Holding Screen
Hand Lamp
Electric Refrigerators
Blood Pressure Apparatus
Weighing Machine - Bathroom
Weighing Machine - Infant
Deepfreezers
Angle Point Lamp

May 9, 1978

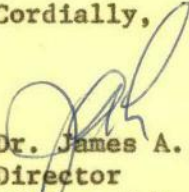
Dear Whitman:

Thank you for your recent letter inviting my participation in the International Environment Forum, on June 12 in New York.

Subject to my being required to respond to an unforeseen emergency, I plan on being present and look forward to meeting the Forum Members and Senior Representatives.

With kind regards,

Cordially,



Dr. James A. Lee
Director
Office of Environmental and
Health Affairs

Dr. Whitman Bassow
Executive Director
Center for International
Environment Information
300 East 42nd Street
New York, N.Y. 10017

JAL:on

May 8, 1978

Dear Mr. Sors:

Thank you for your letter of April 17, 1978, enclosing documents from the Monitoring and Assessment Research Centre (MARC) of Chelsea College. Your letter has been routed to this office for Evaluation and reply.

I fully understand and sympathize with the financial problem of travel fares for would be participants in your upcoming course on "Environmental Impact Assessment and Development". I regret to inform you, however, that the Bank does not make funds available directly for these purposes. Member countries are the direct users of Bank/IDA funds through their economic development projects.

Perhaps the United Nations Environmental Programme (UNEP) may be in a better position to assist you in this regard. If you decide to inquire, you may wish to contact Mr. Noel Brown, Director of the UNEP New York Liaison Office. His address is: P. O. Box 20, Grand Central Station, New York, New York 10017. The telephone number is: (202) 754-8139.


Although we cannot make a financial contribution in this endeavor, please let us know if we can be of assistance in any other matter. We wish you and the participants a very successful course.

Sincerely yours,

Hernan Reitze
Office of Environmental
and Health Affairs

Mr. A. I. Sors
Acting Director
Monitoring and Assessment Research Centre
Chelsea College
The Octagon Building
459A Fulham Road
London SW10 0QX, England

cc: Dr. James A. Lee (To be circulated to Messrs. R. Overby, R. Goodland,
and J. Tixhon)

 HR/ag

OFFICIAL FILE COPY

FORM NO. 75
(7-73)

WORLD BANK GROUP

ROUTING SLIP		DATE May 8, 1978	
NAME		ROOM NO.	
Dr. James A. Lee		E-1005	
<input checked="" type="checkbox"/>	APPROPRIATE DISPOSITION	NOTE AND RETURN	
	APPROVAL	NOTE AND SEND ON	
	COMMENT	PER OUR CONVERSATION	
	FOR ACTION	<input checked="" type="checkbox"/>	PER YOUR REQUEST
	INFORMATION	PREPARE REPLY	
	INITIAL	RECOMMENDATION	
	NOTE AND FILE	SIGNATURE	
REMARKS In preparing this review I have checked the accuracy and potential implications of a number of these texts with Mr. Overby. Needless to say, his insights, as usual, were an invaluable assistance throughout.			
FROM H. Reitze		ROOM NO. E-1044	EXTENSION 7-6940

Dr. James A. Lee

May 8, 1978

Herman Reitze

International Institute for Environment and Development:
Final Draft "Banking on the Biosphere:"

General Background

1. Following your request I have reviewed and highlighted those aspects (texts) of the final draft report of the International Institute for Environment and Development (IIED) entitled, "Banking on the Biosphere: Multilateral Aid and the Environment: The Environmental Policies and Practices of Nine Multilateral Aid Institutions," dated March 1978. I have paid special attention to those aspects which I believe are important to us, particularly, possible factual inaccuracies, conclusions which cannot be supported, etc.
2. This document contains two introductory chapters (I and II) which attempt to provide the general focus of the study. The term "environment" is here defined as "...development which reaches and benefits all people and sustainable in the long-term". A full chapter (III) is exclusively dedicated to studying the policies and practices of the World Bank. Another chapter (IV) deals with all of the original development banks being studied; namely, the InterAmerican Development Bank (IDB), the Asian Development Bank (AsDB), the Caribbean Development Bank (CDB), the African Development Bank (ADB), the Arab Bank for Economic Development in Africa (BADEA), and the European Development Fund (EDF). A fifth chapter (V) deals with the United Nations Development Program (UNDP) and the Organization of American States (OAS). Finally, it contains four chapters (VI, VII, VIII and IX) with analysis of selected sectoral policies and activities (human settlements, energy, water resources, and forestry) of the nine institutions under study; plus a last chapter (X) with the overall conclusions from the study.
3. The report reviews the "attitudes and approaches to the environment among a group of international financing institutions". Chapter III sets out to assess these elements as observed at the World Bank. While I have read the entire report, I have confined my remarks to this particular chapter. I am assuming, therefore, that comments on the other sectorial policies and activities of the Bank will be sought separately by the IIED Assessment Project Team, just as they did for their Interim Report last September.
4. The reviewing methodology I have used here is similar to that used in reviewing the IIED's Interim Report. That is, to encapsulate the most salient and significant texts under various carefully selected themes which seem of importance for the Bank generally and the OEHA particularly. I believe this procedure may facilitate your own evaluation of the substance of the report.

Contextual Review

5. My feeling is that Chapter III represents an adequate and fair survey of the environmental policies and activities of the World Bank.

Following are some selected texts to illustrate some key points:

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. On the Bank's leadership on environmental affairs

- "The Bank has the most advanced environmental policies and practices of any aid organization included in this study and undoubtedly exerts intellectual leadership on environmental matters in the whole international development community."
- "The decision to commit the Bank to rigorous environmental standards came from its top management and not from any demands from its members or lower echelon officials."
- "We have been impressed by the leadership given by the IBRD's top management on environmental development."

. On the strengths and weaknesses of the Office of Environmental and Health Affairs

- "In principle the OEHA is committed to a review, and where necessary the restructuring, of every project funded by the Bank which has a significant environmental, health, or human ecological impact. The review function is entrusted principally to OEHA. In fact, although the four-man environmental group in OEHA has time only to screen closely a small part of the total flow of loan projects, it undoubtedly does succeed in isolating and, usually, in correcting offenders."
- "We were told that these OEHA review procedures inevitably rely heavily on the Bank staff's realization that a project must be able 'to pass environmental muster' after appraisal...because it is impossible for OEHA to become systematically involved in the earlier stages of project identification and preparation."
- "Indeed, the direct work of OEHA represents only one element of the Bank's 'environmental review'. Project officers who have the main line responsibility for all aspects of a given project have the OEHA Environmental Handbook at their disposal."
- "Another very important OEHA responsibility is that of heightening environmental consciousness and knowledge throughout the Bank particularly through training. Formally, this is done by occasional OEHA participation in Bank training activities. However, OEHA (and the Bank's top management) recognizes that OEHA's staff is too small to undertake enough environmental training to meet the Bank's growing needs."

- "Although we have talked to many staff members of the World Bank in every department and office, it is still difficult to assess OEHA's success in performing this function."
- "We believe in fact, that all of the OEHA's principal functions must be to prepare more sophisticated and specific environmental handbooks and to inspire and contribute to new environmentally sensitive sector papers. Not nearly enough has yet been done in this areas"
- "One problem arising from location of all environmental expertise in the Central Projects Department is a degree of isolation whose ultimate impact is impossible to measure."

• On the Economic Development Institute (EDI)

- "The Bank badly needs to incorporate into the work of the Economic Development Institute short courses specifically on environmental issues (particularly for new Bank officers and for developers and planners from borrowing countries). In fact such initiative appears to be imminent. Even more important is the production of well-conceived environmental content in all the courses and case studies used by the Institute."

• On the Bank's dialogue with and influence on its borrowing countries

- "...the World Bank most actively seeks to influence its borrowers to adapt the development policies to what it sees as a country's realities and needs. It uses dialogue with developing country governments, the financing of institution building, legal reform, training, planning, and research to help achieve these ends. Peculiarly, environmental awareness in all this support work is still not very large, but we think the framework, and, more importantly, the will to use it, is growing."

• On the gap between some of the Bank's lending policies and its corresponding lending practices

- "The obvious gap here in expression of Bank policy is the lack of any clear and specific official linkage between lending policies to benefit the poorest, and lending to prevent the erosion of further destruction of the environments on which the poorest are so dependent but which their desperate search for a living so often threatens."

• On the more effective incorporation of the environmental dimension into the economic assessment and planning of Bank projects

Identification

- "We do not advocate, here or elsewhere in this study, the

the inclusion of specific environmental sections in such reports. Rather we urge intelligent, short discussions of the environmental limits within which a country must operate and the prospects for environmental development be included and integrated into discussions of economic and social development objectives."

Appraisal

- "How could the environmental aspects of the Bank's appraisal process be improved? One way would be to make ecological feasibility a separate test in the appraisal process. A project would not be ecologically feasible if the interaction of man, plants, wildlife, climate, and soils were such that a necessary life-sustaining function would be critically disrupted, or if the total stream of costs generated by the project would exceed the anticipated benefits."

Review

- "During this process, a project is submitted to OEHA for official approval--or rather the opportunity is given for official disapproval. If there are no substantive objections, the document continues up the ladder...Generally, by the time a project reaches the senior management level, many of the design details are immutable. It is often impossible to redesign the whole project and it may be difficult to add environmental safeguards. Therefore, in the absence of good environmental planning, the value of the senior level reviews may be severely circumscribed."

Execution and Monitoring

- "The supervisory missions--or the periodic reports sent to the Bank regarding project execution--are generally aware of environmental problems only if they have been mentioned in the appraisal report or if the effects are so large that they materially affect the outcome of the projects. Subtle or long-term changes are likely to be ignored. We recommend that a management decision be made to include comment on environmental problems, or their absence in "terms-of-reference" documents for supervisory missions, and to evaluate in supervisory reports the success of seeking solutions to these problems...There have been some examples of supervisory missions finding that environmental safeguards have been ignored or by-passed."

Overall Conclusions

6. The report points out three main conclusions-recommendations which can be drawn from the study:

- (a) That there ought to be a top-level and public commitment to environmentally sound development by all agencies; that is, "development sustainable over the long-term".

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May 8, 1978

- (b) That regional development banks ought to "arrange mechanisms for more direct cooperation with the World Bank in developing their environmental strategies and policies, thus drawing upon the considerable experience accumulated by the Bank in this area."
- (c) That while there has been a "dramatic growth in the interest and ability of many countries to manage their own environmental problems...these have largely been focused on restoring deteriorating situations. Therefore, we would recommend that institutions announce that they will respond favorably to requests for assistance in developing institutions, drafting environmental legislation, and training personnel within countries that are recipient of their loans. This will, we believe, considerably enhance the probability that efforts by lending institutions to lend for development projects sustainable over the long-term will bear fruit."

cc: Messrs. R. Overby, OEHA
J. Tikhon, OEHA
R. Goodland, OEHA
M. Burney, IRD

 HR/ag



Sponsored by the Center for International Environment Information

4 May 1978

Dr. James A. Lee
Director Environmental/Health Affairs
International Bank for Reconstruction
& Development (World Bank)
1818 "H" Street, N.W.
Washington, D.C. 20433

Dear Jim:

Pursuant to our telephone conversation, I would like to invite you to participate in a meeting of International Environment Forum with Dr. Raimi O. Ojikutu, Director of Environmental Planning and Protection of the Republic of Nigeria.

The meeting will be held in New York on June 12, 1978 at the St. Moritz Hotel (see attached invitation).

As you know, the Forum brings together senior environmental executives of major U.S. and Canadian corporations with senior environmental officials and experts from all over the world to discuss environmental issues. Previous speakers have included Mr. Michel Carpentier, Director, Environmental Protection Services, the European Communities, Dr. M.K. Tolba, Executive Director, UN Environment Programme, Mr. Arnoldo Jose Gabaldon, Minister of the Environment, Venezuela and Mrs. Patsy T. Mink, Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs.

Dr. Ojikutu will speak about Nigeria's environmental problems and how his government plans to deal with them.

I invite you to serve as one of the two discussants who will comment on Dr. Ojikutu's remarks. You will be expected to review his speech which we will send you at least ten days before the event and comment on it for about 10-15 minutes, before the floor is open for questions and general discussion in which you can also participate. The session begins at 10 a.m. and terminates at 3:30 p.m., with a break for cocktails and lunch.

You can make a special contribution to the discussion because of your work and experience in the developing world that could have significant impact on the thinking of the Forum members.

Although you have confirmed to me orally that you will be able to accept, a written confirmation will make me feel better.

See you then.

With best wishes and thanks.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Whitman Bassow', written over the word 'Sincerely,'.

Whitman Bassow, Ph.D.
Executive Director

Enc.

WB/jdp



Sponsored by the Center for International Environment Information

INTERNATIONAL ENVIRONMENT FORUM

Meeting in Honor of

DR. RAIMI O. OJIKUTU

Director, Environment Planning and Protection
FEDERAL MINISTRY FOR HOUSING, URBAN DEVELOPMENT AND ENVIRONMENT
REPUBLIC OF NIGERIA

NIGERIA: ENVIRONMENTAL PROBLEMS AND APPROACHES

Monday, June 12, 1978

9:30 am Coffee & Danish served
10:00 am - 3:30 pm Forum & Luncheon

The St. Moritz Hotel
50 Central Park South
New York City

The Terrace Penthouse

Dr. W.J. Coppoc
Vice President, Environmental Protection, Texaco
will preside

During his career, Dr. Ojikutu has combined teaching, research and service with international organizations. Trained in physical anthropology and environmental sciences with degrees from the University of Kansas, Oxford University and Mainz University, he has been a Fellow at the Smithsonian Institution's Woodrow Wilson Center for Scholars and has taught at the University of Lagos and the University of Maryland. Dr. Ojikutu now heads a newly-created post that gives him responsibility for establishing an environmental protection structure for Africa's largest, most populous and richest country.

Please advise Wendy Kaufman, Manager, Special Projects, of the names of your company's representatives prior to May 31, 1978. Telephone: 212 697-3232

Forum Members and Senior Representatives

1. International Paper Co.
Thomas Payne
Vice President, Environmental Quality
2. AMAX, Inc.
Stanley Dempsey
Senior Vice President of External Affairs
3. Procter & Gamble
W.C. Krumrei, Senior Director
Corporate Research & Development Department
4. Exxon Corporation
Dr. Roger Chandler
Senior Advisor, Public Affairs Department/Environmental
Conservation
5. Texaco, Inc.
Dr. W.J. Coppoc, Chairman
Vice President, Environmental Protection
6. Petro-Canada
Douglas Bowie
Senior Advisor to the President
Environmental & Social Affairs
7. 3 M Company
Dr. Joseph T. Ling
Vice President
Environmental Engineering & Pollution Control
8. Union Carbide Corporation
Thomas Carmody
Corporate Director of Health
9. The Edison Electric Institute
H.J. Young
Senior Vice President
10. ITT Corporation
Ernest Karlin, Director
Consumer & Environmental Affairs
11. Westvaco Corporation
O.B. Burns, Jr.
Director, Corporate Environmental Activities
12. Atlantic Richfield Company
Dr. F.W. Chapman, Jr.
Manager of Environmental & Energy Conservation
13. Tenneco, Inc.
Dr. Casey E. Westell, Jr.
Director-Industrial Ecology

14. Koppers Company, Inc.
Alonzo William Lawrence
Vice President, Environmental Resources
15. W.R. Grace & Company
Oscar Ackelsberg
Assistant Vice President
16. E.I. duPont de Nemours & Company
A.C. Haven
Environmental & Safety Coordinator
17. IBM Corp
Robert Morris
Director Environmental Programs

THE WORLD BANK

ROUTING SLIP

DATE:

May 10, 1978

NAME

ROOM NO.

Dr. Lee

APPROPRIATE DISPOSITION

NOTE AND RETURN

APPROVAL

NOTE AND SEND ON

☒ CLEARANCE

PER OUR CONVERSATION

☒ COMMENT☒

PER YOUR REQUEST

FOR ACTION

PREPARE REPLY

INFORMATION

RECOMMENDATION

INITIAL

SIGNATURE

NOTE AND FILE

URGENT

REMARKS:

This is the second invitation received for this particular meeting. The 1st one -as you may recall- came from Mr. Quijano with an all-Spanish batch of correspondence. This time it comes directly from INCITEC "as if" being endorsed by letters from the IBRD and UNDP Resreps for Colombia.

I have tried, quite unsuccessfully, to obtain some background info. from Mr. Quijano and others. The documents sent by INCITEC, on the other hand, are unrevealing.

Therefore, I feel that I need to obtain some additional information (as per attached draft) prior to advising you as to whether our participation seems warranted.

FROM:

Hernan Reitze *HR*

ROOM NO.:

EXTENSION:

76940

✓
Lee

Nash

Overby

Tixhon

Goodland

Brown

Golladay

Liese

Robinson

Sazza

Ueber

Dement

(TDR)

Reitze

Luke

Your advice pls

Draft ltr of reply

"Cerro Matosi" - Nírbol
Colombia

"Las Brujas" - Ayacucho
Perú

Banco Mundial /

REPRESENTANTE RESIDENTE EN COLOMBIA: Carrera 10 No. 24-55, Piso 17 Bogotá, D.E.
Teléfonos—827564—827584 y 827805 • Cables—INTBAFRAD

Letter No. 73

May 3, 1978

Dr. James Lee
Environmental and Health Adviser
The World Bank
Room E-1010
1818 H Street, N.W.
WASHINGTON, D.C. 20433. U.S.A.

Dear Dr. Lee:

Please find attached invitation to participate in the
II Ibero-American Congress for the Environment, to take place
in Bogotá between September 4 and 8, 1978.

Could you please let me know if the Bank can send
some representatives.

With best regards,

Yours sincerely,



IAN SCOTT
Resident Representative

Naciones



Unidas

PROGRAMA DE LAS NACIONES UNIDAS PARA EL DESARROLLO

CARRERA 11 No. 84-51
APARTADO AEREO 091369
BOGOTÁ - COLOMBIA

TEL: 569300
CABLES UNDEVPRO
TELEX 044316

ORG/130/2/1
No. 1751

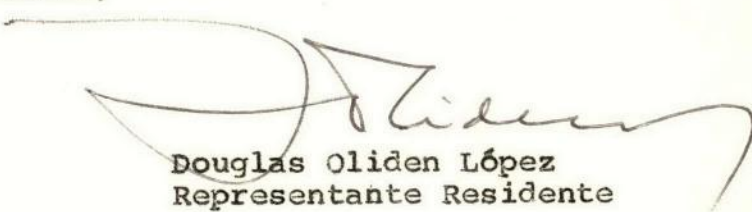
24 de abril de 1978

Estimado Dr. Scott:

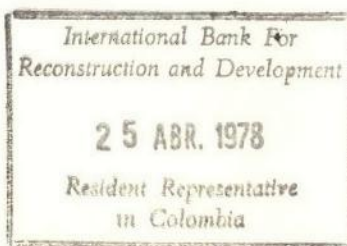
... Sírvase encontrar adjunta fotocopia de una circular del Ministerio de Relaciones Exteriores en el que se auspicia la realización del II Congreso Ibero Americano del Medio Ambiente, del 4 al 8 de septiembre próximo, en la ciudad de Bogotá, organizado por la Fundación Instituto de Investigaciones Científicas y Técnicas "INCITEC".

... Se me ha hecho presente el alto interés que tienen los círculos gubernativos y el Instituto "INCITEC" por obtener participación y apoyo de los organismos de Naciones Unidas que tienen funciones relacionadas con asuntos ecológicos. Por lo tanto me es grato acompañar un folleto descriptivo del Congreso, con el pedido de que oportunamente tenga a bien comunicarnos si su organismo podría participar en alguna forma con las actividades del Congreso.

Lo saluda atentamente,


Douglas Oliden López
Representante Residente

Señor Doctor
Ian Scott
Representante
BIRD
La Ciudad



I. Scott	
J. Bentlerodt	
M.T. Acevedo	
T. Echeverri	
V. Pineda	
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17 MAR. 1978

OI.

CIRCULAR No. 32

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El Ministerio de Relaciones Exteriores saluda muy atentamente al Programa de las Naciones Unidas para el Desarrollo y tiene el honor de comunicarle que la Fundación Instituto de Investigaciones Científicas y Técnicas "INCITEC", con el respaldo científico de instituciones oficiales, organiza actualmente el II Confreso Iberoamericano del Medio Ambiente, el cual se ha de celebrar en esta ciudad, del 4 al 8 de septiembre próximo. Un plegable explicativo de este certamen acompaña a la presente Nota.

El Ministerio ruega a esa Honorable Representación transmitir a los Organismos adscritos a Naciones Unidas, que puedan estar interesadas en participar en el Congreso, invitación a tomar parte en él.

El Ministerio de Relaciones Exteriores aprovecha la presente oportunidad para renovar a esa Honorable Representación las seguridades de su alta consideración y aprecio.



ANEXO: lo anunciado.

Bogotá, D.E., 27 de marzo de 1978

II CONGRESO IBEROAMERICANO DEL MEDIO AMBIENTE

BOGOTA, COLOMBIA 4 AL 8 DE
SEPTIEMBRE DE 1978

BOLETIN No. 1

20 ABR. 1978

El Primer Congreso Iberoamericano del Medio Ambiente tuvo lugar en Madrid, España, del 12 al 18 de octubre de 1975, apoyado institucionalmente por la Asociación Española de lucha contra la Contaminación Ambiental, ASELCA, entidad del Sector Privado. Fue su organizador y presidente el Prof. Dr. José Catalán Lafuente, Director del Centro de Estudios del Medio Ambiente (CEMA), del Consejo Superior de Investigaciones Científicas.

—○—

Este Segundo Congreso, en Colombia, es una iniciativa del Sector Privado, promovido por la Fundación Instituto de Investigaciones Científicas y Técnicas "INCITEC". Tiene, el apoyo institucional de la Asociación Nacional de Industriales, ANDI. El Fondo Colombiano de Investigaciones Científicas y Proyectos Específicos, COLCIENCIAS. El Instituto de Investigaciones Tecnológicas, I.I.T. La Dirección de Saneamiento Ambiental del Ministerio de Salud, y el Comité Colombiano del MAB.

NUEVO PLAZO PARA INSCRIPCIONES. La demora en la impresión del folleto de información Preliminar del Congreso, determinó que tardíamente fuese entregado al correo, llegando así con 2 meses de retraso a los destinatarios. Ello redujo notoriamente el tiempo para que los participantes envíen, oportunamente, la presentación de títulos de comunicaciones y efectúen las respectivas inscripciones; en virtud de esto se han ampliado los plazos a saber:

- PARA INSCRIPCIONES; FECHA ABIERTA SIN RECARGO ALGUNO.
- PARA ENVIAR TITULOS DE COMUNICACIONES, HASTA EL 1º DE AGOSTO DE 1978.

El Secretariado intensifica progresivamente una campaña a fin de promover la asistencia al Congreso de mandos directivos del Sector Privado, del Sector Público, de la Comunidad Científica y de entidades internacionales, para así, congregar en las sesiones, efectivos Iberoamericanos del más alto nivel de decisión en el

logro de la mejor productividad en torno al tema, indiscutiblemente básico, del influjo de la Política Ambiental en la Política de Desarrollo Económico y Social de la Comunidad Iberoamericana.

—○—

El significado del Congreso es incontestable. Somos 24 países Iberoamericanos con una población cercana a los 500 millones de habitantes. Esta masa humana tie-

ne un influjo en la determinación del ambiente mundial, el que no es posible desconocer. Por ende, las orientaciones que de este foro resulten, más adelante, tendrán gran peso en las deliberaciones y decisiones mundiales. Señor Directivo, Presidente o Gerente de Empresa, asista a éste certamen de su experiencia, criterio y decisión depende, el porvenir ambiental de 500 millones de personas.

REMITE: INCITEC

SECRETARIADO

II CONGRESO IBEROAMERICANO
DEL MEDIO AMBIENTE

CARRERA 19 N° 66-21
BOGOTA-COLOMBIA

AVIANCA

TRANSPORTADORA OFICIAL



Wagons-lits

AGENCIA OFICIAL DE
VIAJES Y ALOJAMIENTOS

SEÑOR PARTICIPANTE

Sírvase diligenciar el formulario de inscripción, y acompañarlo con el cheque respectivo a nombre de INCITEC, por correo certificado a la siguiente dirección:

Carrera 19 N° 66-21. Bogotá - Colombia.

Mil gracias

El tema que hasta hoy despierta mayor interés, es el de las implicaciones financieras y económicas de la Legislación Ambiental. Todo indica que políticos, economistas y juristas convergen en éste punto. Si estos problemas son de su interés, inscribase en el grupo de trabajo de la Sección I. Política Ambiental (ver folleto de Información Preliminar).

ANDI, Asociación Nacional de Industriales de Colombia, está vinculada a la organización del Congreso Iberoamericano del Medio Ambiente en razón de que ya desde el año de 1972, viene trabajando en la tarea de dar soluciones a la Contaminación Ambiental. Para este propósito cuenta con comités especializados formados por industriales y empresarios de las ciudades de Medellín y Cali, en la actualidad se está organizando el comité de Bogotá.

COLCIENCIAS, como entidad ejecutora de la política científica y tecnológica de Colombia y una de las coordinadoras del II Congreso Iberoamericano del Medio Ambiente, invita a la Comunidad Científica de Iberoamérica a intercambiar los avances científicos y tecnológicos, encaminados a solucionar problemas ambientales; en este sentido, ha enviado comunicaciones a entidades análogas.

INCITEC, es una fundación privada sin ánimo de lucro, que trabaja en Biología de suelos, elaboración de modelos de Eco-Desarrollo, Prospectiva y Administración Ambiental. Es miembro del Comité Colombiano del Hombre y la Biosfera. MAB. Tiene a su cargo la Presidencia del Secretariado del Congreso.

EL INSTITUTO DE INVESTIGACIONES TECNOLÓGICAS, I.I.T., trabaja en Colombia en el campo de la aplicación práctica de innovaciones tecnológicas compatibles con la calidad ambiental. Como entidad participante en la promoción de éste Congreso, invita a Instituciones Iberoamericanas análogas a participar en éste evento.

EL INSTITUTO DE RECURSOS NATURALES INDERENA, entidad gubernamental gestora y realizadora de la tarea para la promulgación del Código Nacional Colombiano de los Recursos Naturales Renovables y

Protección al Medio Ambiente, en coordinación con COLCIENCIAS, sede del Sistema Nacional de Información, SNI, instaura, organizativamente en el país, el Sistema Nacional de Información Ambiental y de Recursos Naturales Renovables.

LA DIRECCION DE SANEAMIENTO AMBIENTAL (Ministerio de Salud), quien trabaja en la expedición de la "Ley Sanitaria", instrumento jurídico que complementará el cuadro legislativo nacional en materias ambientales, exhorta a los colegas de la salud pública, ingenieros sanitarios y especialistas en derecho ambiental a diligenciar su inscripción en este Congreso.

FIRMAS PARTICIPANTES QUE EXHIBIRAN EQUIPOS

ZEIZZ (Alemania Occidental). Equipos para Control de la Contaminación Ambiental: Espectrocromatógrafo de capa delgada, Fotometría de Monoabsorción Atómica, Analizador de gases (polución), Electrofotómetro (Análisis de agua).

APROCIN LTDA., distribuidores exclusivos para Colombia de Fisher Scientific Company.

COLABORACION DE FIRMAS

El Secretariado agradece la colaboración de CICO-LAC, quien a auspiciado la provisión de carpetas y la atención de un stand para la distribución de sus productos alimenticios a los congresistas.

El Profesor Doctor Manuel M. Quevedo en su carácter de Presidente del Congreso, a partir del 15 de junio próximo, realizará un viaje por los países Iberoamericanos y de Europa con el propósito de establecer nexos con personas e instituciones a fin de concretar su participación en las sesiones del Congreso.

Quienes estén interesados en entrevistarle, favor dirigirse al Secretario del Congreso, Ingeniero Juan Carranza, en la sede del Secretariado. INCITEC. Carrera 19 N° 66-21. Teléfono: 2 35 03 15. Bogotá, Colombia.



Wagons-lits Turismo

Estimado Delegado:

Con el objeto de facilitar su inscripción al II CONGRESO DEL MEDIO AMBIENTE, gustosamente suministramos la siguiente información:

I. VALOR Y FECHA DE INSCRIPCION:

Delegados	Col. \$ 3.000.00	ANTES DEL 25 DE ABRIL DE 1978
	Col. \$ 3.600.00	DESPUES DEL 25 DE ABRIL DE 1978
Acompañantes	Col. \$ 900.00	

II. SEDE DEL CONGRESO: Hotel Tequendama Intercontinental.

III. IDIOMA OFICIAL: Español.

IV. DEBE ENVIAR LA INSCRIPCION Y RESERVA HOTELERA ACOMPAÑADA CON SU RESPECTIVO PAGO A:

WAGONS-LITS TURISMO
Carrera 5 N° 15-91, Oficina 401
Bogotá, Colombia S. A.
Señor José Manuel Mejía, Congresos
Agencia Oficial nombrada por el Secretario del Congreso.

V. LISTA DE HOTELES: Precio por persona de Septiembre 03 al 10, 1978
(7 noches sin comidas).

	HAB. SENCILLA	HAB. DOBLE	HAB. TRIPLE
HOTEL TEQUENDAMA	Col. \$ 7.830.00	Col. \$ 4.925.00	Col. \$ 3.995.00
HOTEL BACATA	Col. \$ 5.535.00	Col. \$ 3.705.00	Col. \$ 3.100.00
HOTEL DANN	Col. \$ 4.350.00	Col. \$ 2.885.00	Col. \$ 2.395.00
HOTEL PRESIDENTE			

FORMATO PARA RESERVA HOTELERA (Favor enviarlo antes del 25 de Abril, 1978)

HOTEL DESEADO _____

NOMBRE (S) _____

DIRECCION _____

CIUDAD _____ PAIS _____

TIPO DE HABITACION SENCILLA ☐ DOBLE ☐ TRIPLE ☐

NUMERO DE HABITACIONES _____

FECHA DE LLEGADA _____ VUELO _____

FECHA DE SALIDA _____ VUELO _____

AMAX ENGINEERING AND MANAGEMENT SERVICES CO.

A DIVISION OF AMAX INC.

TWO GREENWICH PLAZA, P. O. BOX 1705, GREENWICH, CONNECTICUT 06830 • (203) 622-3680

May 2, 1978

Mr. J. M. H. Tixhon
Office of Environmental and Health Affairs
The World Bank
1818 H. Street, N. W.
Washington, D. C. 20433

Dear Mr. Tixhon:

As a part of the BCL, Ltd. pollution program, we propose a system that is capable of developing a meteorological data base that can provide the input parameters for both a long and short term diffusion model for tall stack and fugitive emissions. The primary meteorological parameters to be metered are:

Wind Speed
Wind Direction
Temperature
Dew Point
Estimate of Mixing Height
Precipitation

including measurements of the standard deviation of the azimuth and the vertical wind direction.

The raw data will be averaged every five minutes. In the data acquisition and logging portion of the system, provisions will be incorporated for manual input such as cloud cover (stability classification) and comments on plant operation as well as continuous measurement of ambient air quality, ambient air temperature, dew point, and precipitation.

The system will produce a quarterly summary of one hour averages of the climatological data and the frequency distribution by wind speed, stability class, and wind direction.

The proposed system will include a Model 600-3 Xonics Doppler-Acoustic Remote (Xondar) Wind Sensor. The system consists of a transmitter radiating a vertical beam, a receiver co-located with the transmitter,

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1978 MAY -5 PM 2: 39

INCOMING MAIL UNIT

and two outlying receivers along perpendicular directions with respect to the transmitter. This system permits an unambiguous vector measurement of all three components of wind.

This system will utilize a four-driver feed, (6 decibel increase in output power) since portability is not a requirement. Shipment of the above system is 120 days after receipt of order. We further propose that the entire system be assembled at Xonics in Van Nuys, California and tested prior to shipment as the information can be cross checked with other sources of data.

The Xondar system is capable of monitoring the wind field in three dimensions at six specified heights above a site with a maximum height of 500 meters above the site.

As a check point and back-up to the Xondar system, the wind speed and direction will be monitored using a standard set of sensors on a 10 meter mast. Additionally, the temperature and dew point will be monitored 2 meters above ground level on this mast and pressure and precipitation measurements will be taken at ground level. A schematic of this system is shown in the attached diagram.

This proposal was developed with the aid of H. E. Cramer Co., Inc., Salt Lake City, Utah, an environmental and meteorological consultant.

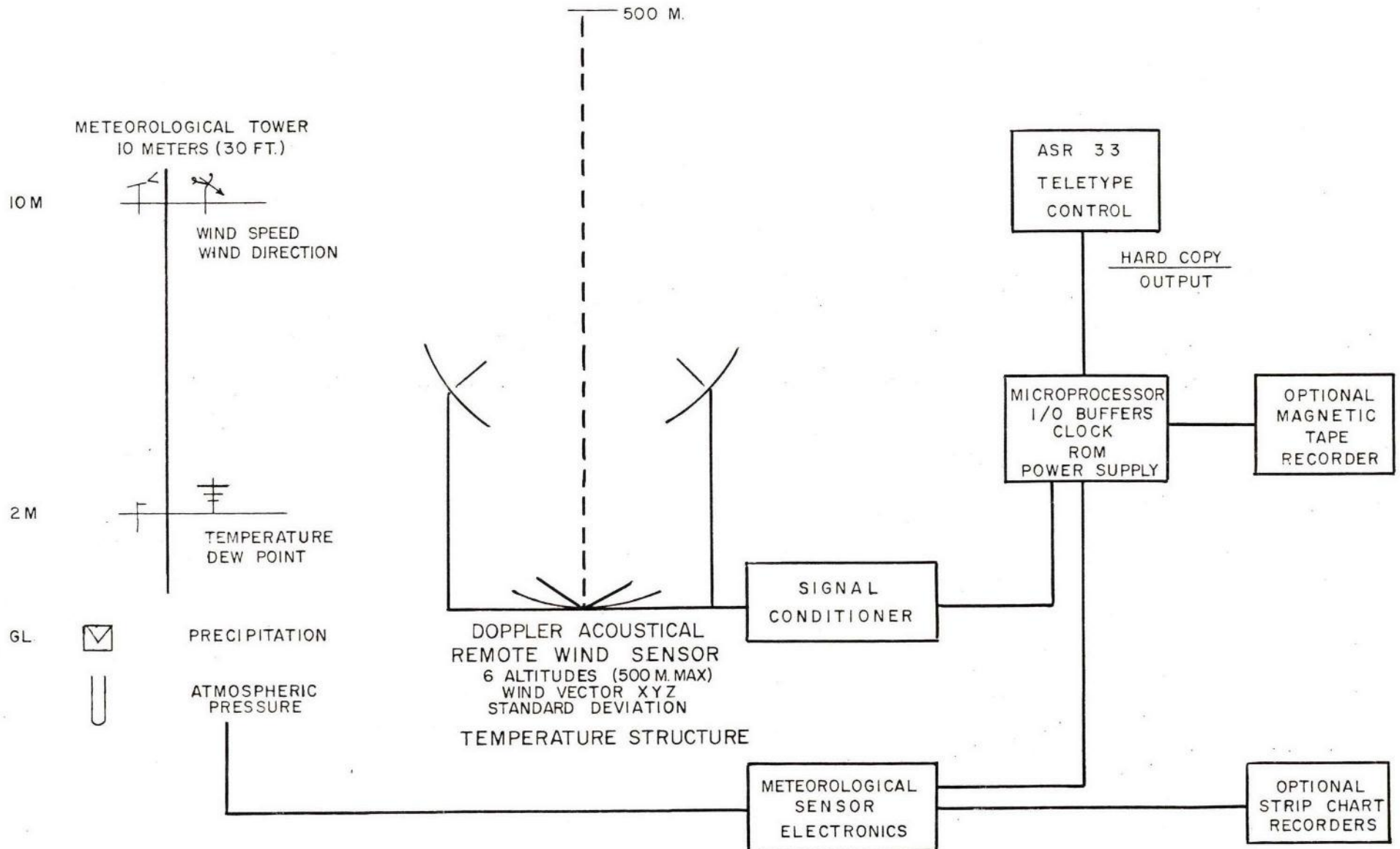
We would appreciate your review of this proposal to see if it fulfills the requirements you had in mind for the weather monitoring station. If it does meet these requirements, we would be grateful to receive a statement in writing to that effect. I will call you the week of May 8, 1978 to solicit your reaction to the proposal and discuss the reasons resulting in the selection of the Xondar system.

Very truly yours,

Robert J. Harvey
Robert J. Harvey
Consulting Chemical Engineer

RJH:ies

WEATHER MONITORING STATION — BCL
SELEBI PHIKWE, BOTSWANA



May 2, 1978

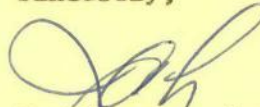
Dear Dr. Sternfeld:

Thank you for your letter of April 12, 1978, inviting this Office to participate in the Seminar on Environmental Management, sponsored by your organization, to be held at Headquarters on Tuesday, May 9, 1978.

I am pleased to accept your personal invitation to address the afternoon session of the Seminar on the subject of "The Organizational Response to Environmental Issues in Development". I have also asked Mr. Hernan Reitze, Interagency Liaison Officer from my staff, to represent this Office at the Seminar.

I look forward to seeing you and other IDB senior management staff on this occasion.

Sincerely,



Dr. James A. Lee
Director
Office of Environmental
and Health Affairs

Dr. Reuben Sternfeld
Executive Vice President
Inter-American Development Bank
Washington, D. C. 20577

bcc: Messrs. J. Tixhon, R. Overby, R. Goodland, H. Reitze

JAL/ag



5- Env. & Health

UNITED NATIONS ENVIRONMENT PROGRAMME
PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT



Télégrammes : UNITERRA, PARIS

Téléphone : 766.16.40
227.45.12

Télex : 650273

INDUSTRY AND ENVIRONMENT OFFICE
DEPARTEMENT INDUSTRIE ET ENVIRONNEMENT

17, rue Margueritte
75017 PARIS - France

RÉF. N° : 1183

April 28, 1978

Dear Jean,

Environmental Consultative Committee for the Aluminium Industry

We were sorry that the World Bank could not be represented at the first meeting of the Consultative Committee on Aluminium, held in Paris on April 11 and 12, 1978. Please find enclosed, for your information, the Provisional Record of this meeting.

We should like to draw your attention to paragraphs 19 and 21, wherein it was agreed that information would be requested from members of the Committee on their experience with regards to :

- (i) use and disposal of bauxite residues, including effects observed in relation to marine disposal of residues;
- (ii) environmental protection and rehabilitation of mined bauxite sites.

Your input on these subjects would be most welcome, as well as copies or summaries of existing relevant legislation.

Members of the Committee also agreed to inform the Secretariat on their experience in relation to using the IPAI Environmental Recommendations for Siting and Operation of New Primary Aluminium Industry Facilities, as a checklist under their own conditions, and report any additional factors or processes which they consider should be added (see paragraph 45). A copy of this IPAI document is also enclosed for your information.

We look forward to hearing from you on these matters.

With kind regards,

Yours sincerely,

Léon de ROSEN
Director, Industry & Environment Office

Encl. 2 - Retained by *INDUSTRY OFFICE OF Env. & Health Affairs*

Mr. Jean M.H. TIXHON 1818 MAY 10 5H 3: 32
Office of Environmental & Health Affairs
The World Bank
1818 H Street, N.W.
WASHINGTON, D.C. 20433
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U.S.A.



PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT
UNITED NATIONS ENVIRONMENT PROGRAMME



DEPARTMENT INDUSTRIE ET ENVIRONNEMENT
INDUSTRY AND ENVIRONMENT OFFICE

17, rue Marguerite
75017 PARIS - France

Télégrammes : UNITERRA, PARIS
Téléphone : 766.16.40
227.42.12
Télex : 820273

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With kind regards,

Yours sincerely,
Léon de ROSEN

Léon de ROSEN
Director, Industry & Environment Office

Encl. 2 - Retained INCOMING MAIL UNIT

Mr. Jean M.H. TIXHON
1978 MAY 10 PM 3:25

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Office of Environmental & Health Affairs
The World Bank
1818 H Street, N.W.
WASHINGTON, D.C. 20433

U.S.A.



S. Environment &
Health

INTERNATIONAL ASSOCIATION OF MEDICINE AND BIOLOGY OF ENVIRONMENT
ASSOCIATION INTERNATIONALE DE MÉDECINE ET BIOLOGIE DE L'ENVIRONNEMENT

PRÉSIDENT D'HONNEUR PROF. RENÉ DUBOS UNIVERSITÉ ROCKEFELLER U.S.A.

115 RUE DE LA POMPE - F - 75116 PARIS - TÉLÉGR. ECOMEBIO-PARIS - TÉL. 553.45.04

LE PRÉSIDENT

Monsieur Jean M.H. Tixhon
Office of Environmental and
Health Affairs
The World Bank
1818 H Street N.W.
Washington D.C. 20433
U.S.A.

Paris, le 28 Avril 1978

Cher Monsieur,

Pour des raisons indépendantes de ma volonté, je n'ai pas eu la chance de vous rencontrer lors de mes deux récents voyages à Washington.

Dans le cadre de nos activités récentes, j'ai le plaisir de vous adresser ci-joint une documentation sur le Congrès Mondial sur "la Salubrité de l'Environnement dans l'Habitat" qui tiendra ses assises à Mexico, sous la Présidence d'Honneur de M. José Lopez Portillo, Président de la République du Mexique, du 6 au 10 Novembre 1978.

Placé sous l'égide de notre Association et du Ministère de la Santé du Gouvernement Mexicain, cet important meeting international permettra de faire connaître les dernières réalisations des scientifiques et des techniciens dans ce domaine et les récentes contributions de chaque nation participante, dans le cadre du Programme ci-joint.

Cette grande manifestation internationale à laquelle doivent participer les experts les plus concernés par ces problèmes, déroulera ses sessions en deux parties simultanées, l'une consacrée aux Tables Rondes et l'autre aux Thèmes Généraux.

A l'intérieur de cette seconde partie, un rapport général sera présenté par une personnalité de renommée internationale non encore désignée, alors que pour chacun des sept thèmes généraux, le point actuel de la question sera présenté par différentes personnalités représentant aussi bien les pays développés que ceux en voie de développement.

Mes amis et moi-même souhaiterions, bien sûr, votre soutien pour assurer le succès de cette entreprise. Vos commentaires seront les bienvenus pour ce qui concerne la liste des noms de spécialistes susceptibles d'être en mesure d'envoyer le fruit de leurs travaux aussi bien que les noms de speakers que vous considérez comme essentiels à l'animation d'un Congrès de cette nature.

En vous remerciant de votre sollicitude et de votre attention, je vous prie de croire, cher Monsieur, en l'assurance de mes sentiments très cordiaux.

Dr. Richard ABRON



très cordiaux.

Je vous prie de croire, cher Monsieur, en l'assurance de mes sentiments
En vous remerciant de votre sollicitude et de votre attention,

Congrès de cette nature.

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à Mexico, sous la présidence d'honneur de M. José Lopez Portillo,

"la Santé de l'Environnement dans l'Habitat" qui tiendra ses assises
de vous adresser ci-joint une documentation sur le Congrès Mondial sur

Dans le cadre de nos activités récentes, j'ai le plaisir

Washington.

en la chance de vous rencontrer lors de mes deux récents voyages à
pour des raisons indépendantes de ma volonté, je n'ai pas

Cher Monsieur,

U.S.A.

Washington D.C. 20433

1818 H Street N.W.

The World Bank

Health Affairs

Office of Environmental and

LE PRÉSIDENT

Monsieur Jean M.H. Tixhon

Paris, le 28 Avril 1978

112 RUE DE LA POMPE - F - 75116 PARIS - TÉLÉGR. ECOMEDIO-PARIS - TÉL. 223.42.04

PRÉSIDENT D'HONNEUR PROF. HEINE DUBOS UNIVERSITE ROCKEFELLER U.S.A.

ASSOCIATION INTERNATIONALE DE MÉDECINE ET BIOLOGIE DE L'ENVIRONNEMENT

INTERNATIONAL ASSOCIATION OF MEDICINE AND BIOLOGY OF ENVIRONMENT



2. 8. 1978
Health
Environment



International Association
of Medicine and Biology
of the Environment

Association Internationale de
Médecine et Biologie de
L'Environnement
115 Rue de la Pompe
75116 Paris - France



Secretaría de Salubridad y
Asistencia de México
Ministry of Public Health and
Welfare of Mexico

CONGRESO MUNDIAL SOBRE SALUD AMBIENTAL Y HABITAT

CONGRES MONDIAL SUR LA SALUBRITE DE L'ENVIRONNEMENT DANS L'HABITAT

WORLD CONGRESS ON ENVIRONMENTAL HEALTH AND HABITAT

6 a 10 de noviembre de 1978

Ciudad de México
México

THEMES GENERAUX

I . DETERIORATION DE L'ENVIRONNEMENT ET SANTE PUBLIQUE

- 1.1. Definition et caractère global de la détérioration de l'environnement
- 1.2. Causes et origines de la détérioration de l'habitat dans les écosystèmes et leurs rapports vis-à-vis des individus et des populations.
- 1.3. Gestion des écosystèmes pour l'amélioration de l'habitat, de la santé et du bien-être.
- 1.4. La détérioration de l'environnement comme référence de base à la santé publique et à la planification de l'habitat.
- 1.5. La pollution de l'eau, de l'air et du sol comme facteur de la détérioration de l'environnement et ses effets sur la santé publique.

II. ETUDES D'IMPACTS SUR L'ENVIRONNEMENT : METHODOLOGIE ET EVALUATION

- 2.1. Portée et contenu d'une étude d'impacts sur l'environnement se rapportant à la santé publique et à l'habitat. Méthodologie existante.
- 2.2. Analyse des actions proposées qui peuvent nécessiter l'étude d'impact sur l'environnement.
- 2.3. Différentes approches selon la portée de l'analyse : Nationale, régionale et locale.
- 2.4. Etudes de cas. Evaluation des projets et établissement du dossier.

III. LEGISLATION RELATIVE A LA SALUBRITE DE L'ENVIRONNEMENT DANS L'HABITAT : LE PROBLEME DES CRITERES ET DES NORMES

- 3.1. Développement, expériences et tendances de la législation.
- 3.2. Analyse de la législation actuelle et des normes de qualité.
- 3.3. Application de la loi et problèmes de conformité.
- 3.4. Critères pour améliorer les normes de qualité relatives à la salubrité de l'environnement dans l'habitat.

IV. POLITIQUES NATIONALES DANS LE DOMAINE DE LA SALUBRITE DE L'ENVIRONNEMENT DANS L'HABITAT : PROGRAMMES ET PLANIFICATION

- 4.1. Les priorités de politiques mondiale, nationale et régionale dans le domaine de la salubrité de l'environnement dans l'habitat.
- 4.2. Politiques nationale et régionale de salubrité de l'environnement dans l'habitat.
- 4.3. Planification dans le domaine de la salubrité de l'environnement dans l'habitat.
- 4.4. L'analyse de systèmes au niveau de la planification et de la programmation en matière de salubrité de l'environnement dans l'habitat.
- 4.5. Analyse économique de l'exécution des programmes relatifs à la salubrité de l'environnement dans l'habitat.
- 4.6. Politiques d'évaluation et de contrôle des plans et des programmes relatifs à la salubrité de l'environnement dans l'habitat.

Presidente:

Dr. Richard Abbou

Secretaria General Ejecutiva:

Dra. Blanca Raquel Ordóñez



International Association
of Medicine and Biology
of the Environment
Association Internationale de
Médecine et Biologie de
L'Environnement



Secretaría de Salubridad y
Asistencia de México
Ministry of Public Health and
Welfare of Mexico

Presidente:

Dr. Richard Abbou

Secretaria General Ejecutiva:

Dra. Inca Raquel Ordóñez

V. GESTION DE LA SALUBRITE DE L'ENVIRONNEMENT DANS L'HABITAT

- 5.1. Gestion de l'habitat et de son entretien en relation avec la salubrité de l'environnement.
- 5.2. Besoins de l'Homme dans le domaine de l'habitat. Qualité de la vie. Travaux publics.
- 5.3. Buts de la salubrité de l'environnement dans la gestion de l'habitat.
- 5.4. Voies et moyens d'une gestion de la salubrité de l'environnement dans l'habitat.
- 5.5. Organisation et exécution des stratégies nationales en matière de gestion de la salubrité de l'environnement dans l'habitat.
- 5.6. Entretien de l'habitat par ses occupants en relation avec la salubrité de l'environnement.

VI. SECURITE ET HYGIENE DANS L'HABITAT

- 6.1. Dans les Services publics d'Hygiène élémentaire.
- 6.2. Hygiène et Sécurité dans la construction, le logement, les lieux de travail et de loisirs.
- 6.3. Prévention et contrôle des accidents dans l'habitat.
- 6.4. Mesures de protection et de sécurité dans les lieux exposés aux agressions naturelles et d'origine humaine.
- 6.5. Protection et contrôle sanitaires dans les zones sinistrées.

VII. ASPECTS SOCIO-ECONOMIQUES ET PSYCHO-SOCIO-CULTURELS DE LA SALUBRITE DE L'ENVIRONNEMENT DANS L'HABITAT

- 7.1. La détérioration des écosystèmes comme conséquence des diverses agressions en milieu urbain.
- 7.2. La participation des citoyens dans les programmes de salubrité de l'environnement dans l'habitat.
- 7.3. Acceptabilité des politiques concernant la salubrité de l'environnement dans l'habitat aux différents niveaux socio-économiques.
- 7.4. La société de consommation comme génératrice de problèmes d'environnement dans son habitat.

TABLES RONDES

1. Salubrité de l'environnement et développement rural.
2. Technologies appropriées et salubrité de l'environnement dans l'habitat.
3. Impacts socio-économiques des politiques de salubrité de l'environnement dans l'habitat.
4. L'industrie et l'ingénierie de la salubrité de l'environnement dans l'habitat.
5. Les autorités locales et leurs politiques relatives à la salubrité de l'environnement dans l'habitat.

CONGRES MONDIAL SUR LA SALUBRITE DE
L'ENVIRONNEMENT DANS L'HABITAT

WORLD CONGRESS ON ENVIRONMENTAL HEALTH AND HABITAT

6 a 10 de noviembre de 1978

Ciudad de México

México

International Association
of Medicine and Biology
of the EnvironmentAssociation Internationale de
Medecine et Biologie de
L'Environnement
115 Rue de la Pompe
75116 Paris - FranceSecretaría de Salubridad y
Asistencia de MéxicoMinistry of Public Health and
Welfare of Mexico

Placé sous la Présidence d'Honneur de Monsieur José Lopez Portillo, Président de la République du Mexique, le Congrès Mondial sur la "Salubrité de l'Environnement dans l'Habitat" tiendra ses assises à Mexico, du 6 au 10 novembre 1978.

Organisé dans le cadre des priorités du Programme des Nations Unies pour l'Environnement, selon les recommandations de la Conférence des Nations Unies sur l'Habitat organisée à Vancouver, Canada en juin 1976, cette grande Manifestation Internationale est placée sous l'égide de l'Association Internationale de Médecine et Biologie de l'Environnement et du Ministère de la Santé Publique du Gouvernement Mexicain.

Le programme de cette manifestation internationale permettra de connaître les dernières contributions relatives à un aspect fondamental du développement urbain, rural et maritime ainsi que la protection de l'environnement dans l'habitat, avec la participation des experts les plus compétents (Techniciens, Scientifiques, Médecins, Ingénieurs, Biologistes, Toxicologistes, Architectes, Urbanistes, Planificateurs, Industriels).

Presidente:

Dr. Richard Abbou

Secretaria General Ejecutiva:

Dra. Blanca Raquel Ordóñez

En apportant le fruit de leurs expériences, les Nations des cinq continents soumettront aux participants leur dernier plan d'aménagement s'inspirant de leur politique actuelle dans le domaine traité par le Congrès.

Des Commissions seront créées au cours du Congrès pour assurer l'application des résolutions prises lors de cette importante réunion ; De plus, un Bureau sera constitué pour la création du "Centre Mondial pour la Salubrité de l'Environnement dans l'Habitat", à Mexico.

Pour faciliter la participation des futurs congressistes, le Gouvernement Mexicain ainsi que les services techniques de l'AIMBE, ont mis en oeuvre tous les moyens nécessaires les plus modernes :

Droits d'inscription avant le 31 août 1978.....	160 \$ U.S.
Membre accompagnant.....	50 \$ U.S.
Membre de l'AIMBE.....	140 \$ U.S.
Etudiant.....	5 \$ U.S.
Droits d'inscription après le 31 août 1978.....	180 \$ U.S.
Membre accompagnant.....	50 \$ U.S.
Membre de l'AIMBE.....	160 \$ U.S.
Etudiant.....	5 \$ U.S.

. auprès du Docteur Richard ABBOU, Président de l'AIMBE,
115, rue de la Pompe, 75116 PARIS, France
Tél. : 553 45 04, Télégraphe : ECOMBIO-Paris.

. auprès de la Dra Blanca Raquel ORDOÑEZ, Secrétaire Générale Exécutive,
Subsecretaria de Mejoramiento del Ambiente,
Av. Chapultepec 284, Piso 13, MEXICO 7, D.F., Mexique
Tél. : 511 28 13 ou 511 24 48.

N.B.: Les trois langues officielles sont : l'Anglais, le Français et l'Espagnol



ASSISTANT SECRETARY OF STATE
OCEANS AND INTERNATIONAL ENVIRONMENTAL AND SCIENTIFIC AFFAIRS
WASHINGTON, D.C. 20520

April 28, 1978

Dr. Robert Goodland
World Bank
Room E1044
1818 H Street, N.W.
Washington, D.C. 20433

Dear Dr. Goodland:

Tropical deforestation and associated social, economic and ecological problems, is rapidly emerging as a major global environmental issue. In addition to the many scientific reports and popular articles which have appeared this past year, the subject of the rapid disappearance of the world's tropical forests will be highlighted in the study of natural resource, environmental and population conditions projected to the year 2000 which the State Department and the Council on Environmental Quality will soon send to the President.

The heightened awareness and concern is generating a growing number of new programs and program proposals by U.S. and international organizations to deal with the situation. Many of these have been directed to the Department of State and the Agency for International Development (AID) for direct support or endorsement. In addition to having to render judgments on such programs and proposals, there may be additional need and opportunity for U.S. leadership.

As a consequence, the Department of State and the Agency for International Development are co-sponsoring a U.S. Strategy Conference on Tropical Deforestation at the Department of State, June 12-14. The principal objectives are to: (1) review the nature and trends of the problem; (2) exchange information about ongoing and planned programs; and, (3) consider the type of strategy and activities the U.S. should pursue nationally and internationally to address the problem. We anticipate participation by approximately 60 representatives from

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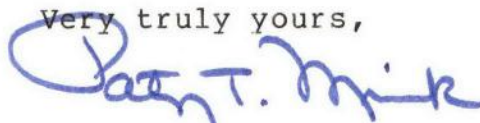
Government agencies, universities, industry, the environmental community and private foundations--all of whom have experience and direct interest in the international forestry area. Also participating will be members of the U.S. Directorate for the Man and the Biosphere Program as well as of several international organizations.

I would like to invite you to participate in this important conference. A tentative program is enclosed which describes the scope, format and the issues we plan to address. It will be modified based on consultation with the invitees.

A member of my staff will be in touch with you within the next week to discuss your availability, obtain any suggestions you might have on the structure and content of the program, and discuss the specific role you might play.

I very much hope that you will be able to participate in what can be a very significant conference. The insights and recommendations that emerge will be invaluable in helping determine U.S. initiatives and postures within various international forums in the months ahead. In addition, the exchange of information about critical problems, priority needs and ongoing and planned activities addressed to the deforestation situation should be of interest to all.

Very truly yours,



PATSY T. MINK
Assistant Secretary

Attachment:
Program Outline



DMB/SAC

Mr. James L. Lee,
Environmental and Health Affairs,
Projects Advisory Staff,
World Bank,
1818 H Street NW,
Washington D.C. 20433,
U.S.A.

S-Environment and Health

THE UNIVERSITY OF ASTON IN BIRMINGHAM

Gosta Green, Birmingham B4 7ET/Tel: 021.359 3611 Ex 321

Complementary Studies

Director: William F Gutteridge MBE, MA
Deputy Director: David M Brancher PhD
Assistant Director: Peter D Jarman PhD

27th April, 1978

Dear Mr. Lee,

I wrote to you on 18 January 1978 concerning my involvement in the Unesco working group on the environmental education of engineers and my commission to edit a forthcoming book on this subject.

I mentioned the possibility of a contribution to the book, from yourself or a colleague at World Bank, dealing with the environmental aspects of development and the need for it to be represented in the education of engineers in both developed and developing countries. I am now in a position to say that such a contribution would be welcomed by my colleagues at Unesco and arrangements for the book are now well in hand. //

(I have not so far received a reply to my letter.) I fully appreciate that you may be away from your office on mission or fully committed in other ways. Another possibility, I imagine, is that responsibilities may have been re-arranged in the Bank and you are no longer directly involved in the matter covered in my letter. At any rate, I hope that your office colleagues will be able to let me know the current situation and whether there is any possibility of co-operation.

Yours sincerely,

D.M. Brancher

April 27, 1978

Mr. K. Kawasaki
Preparatory Committee
VI Technicon International Symposium
Hazama Building
5-8 Kita-Arzama 2-chome
Minato-Ku, TOKYO
107 JAPAN

Dear Mr. Kawasaki:

Your letter of April 21 was received today. The title and abstract of my paper was sent to the Preparatory Committee by telex on April 26, and a letter transmitting the abstract according to your instructions was sent by airmail on April 26.

Enclosed herewith is a small photograph of myself, as you requested.

Cordially,

Dr. James A. Lee
Director
Office of Environmental and
Health Affairs

Enc.

JAL:on

WORLD HEALTH
ORGANIZATION



ORGANISATION MONDIALE
DE LA SANTÉ

1211 GENEVA 27 - SWITZERLAND
Telegr.: UNISANTE-Geneva

Tél. 34 60 61 Télec. 27821

1211 GENÈVE 27 - SUISSE
Télégr.: UNISANTÉ-Genève

In reply please refer to:
Prière de rappeler la référence:

HCS/H11/445/5

26 April 1978

Dear Mr Tixhon,

ECB Study of the Impact of Industrialization
on Environmental Health

... Please find attached a brief note reporting the inter-secretariat meeting on the above subject held on 17 February 1978, as well as a copy of the revised study outline. It is hoped that the new outline adequately reflects the recommendations made at the inter-secretariat meeting. Unless you think the outline needs radical revision, I would suggest that we take any further detailed amendments or additions by correspondence. In all events, please let us have your reaction to the revised outline.

We have now engaged the services of Mr David Steele to prepare the first draft of the first three sections of the report. Mr Steele is an economist, and regional industrial planner who has worked for many years in developing countries and is highly familiar with the activities of UN agencies.

It would be very useful at this stage if in addition to the substantive material already sent to us, you could prepare a brief note on your agency activities fitting the headings and numbering of the Annex to the Study Outline. This need only contain headings and references to projects, papers on publications matching past activities over the last ten years, as well as your current and planned future activities.

On the basis of this note a draft of Section three of the report can be prepared for further elaboration. We may need to come together with you to work on this note or perhaps later, at the stage when Section three is elaborated and Section four is prepared for the final report. Please let us know your wishes on this point.

.../...

Mr J. M. H. Tixhon
Office of Environmental & Health
Affairs
World Bank
1818 H. Street, N.W.
Washington, D. C. 20433
USA

... Encl.

Despite the very tight timetable, it is hoped that we will be able to send you a first draft of the first three sections of the report in June.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'V. B. Vouk', with a stylized flourish at the end.

Dr V. B. Vouk
Manager, Environmental Health
Criteria, and Standards
Division of Environmental Health

ECB STUDY OF THE IMPACT OF INDUSTRIALIZATION
ON ENVIRONMENTAL HEALTH

Notes on inter-secretariat meeting, 17 February
1978

The meeting was attended by:

H. Reitze	-	IBRD
H. Z. Evan	-	ILO
A. Persson	-	UNDP
L. de Rosen	-	UNEP
J. B. Carmichael	-	UNIDO
V. B. Vouk	-	WHO
G. Ozolins	-	WHO
B. Goelzer	-	WHO

The purpose of the meeting was to decide on the structure and the format of the overview paper. A detailed outline of the overview paper had been prepared by two consultants prior to the meeting which formed the basis of the discussions.

It was generally considered that the existing draft of the outline was far too comprehensive and broad and that it should be narrowed to concentrate on the priority issues only. Among the suggestions which were made were the following:

1. The parallel problems of urbanization and industrialization were discussed and it was felt that urbanization issues should be introduced only where there was a direct industrialization impact.
2. Increased emphasis should be given to the environmental health impacts of workers and worker family migration towards zones of industrial employment.
3. The overview paper should illustrate some key issues relating to the misuses of industrial products such as food additives and pesticide contaminants in food.
4. The environmental health impacts associated with the modern agricultural sector and the use of industrial products should be included and it was suggested that FAO may wish to participate in the preparation of the overview paper as well.

To expedite the preparation of the paper it was agreed that WHO with the help of consultants would prepare the first draft, particularly sections one and two and a skeleton draft of section three, which then would be reviewed by the participating agencies.

OUTLINE FOR OVERVIEW PAPER ON THE IMPACT OF INDUSTRIALIZATION ON ENVIRONMENTAL HEALTH

Introduction

It is envisaged that the overview paper will consist of five major sections or chapters: (1) introduction, (2) identification of environmental health impacts, (3) description of the relevant programmes of international agencies, (4) identification of major gaps and (5) recommendations of future actions. It is hoped that this organization of the overview paper will facilitate the clear and systematic analysis of how (or how not) the various international organizations are dealing with the impacts on environmental health caused by the process of industrialization. This, in turn, should facilitate the identification of major gaps and the formulation of recommended future actions.

The specialized problems and aspects of the different regions will be brought as far as possible within the scope of the review. The constraints of an overview study will however limit the inclusion of detailed regional descriptions or explanations and every attempt will be made to keep the text short and clear.

Section 1

The introductory chapter would provide a brief background to the study. It would place industrialization in its historical context in developing and developed countries, suggest the changing pattern of industrialization and its relation to the global and regional pattern of health indicators and morbidity statistics:

- the rapid pace of industrialization of countries previously mainly agricultural, relative to the slowing down of growth in certain developed countries;
- the rate of urbanization being faster than the growth rate of modern sector industry;
- the rapid growth in foreign investment in developing countries, in basic resource development requiring high and quick returns,
- the increased emphasis being given to further domestic processing of indigenous primary products and, in order to sell in foreign markets, using standardized modern technology;
- the general pattern of environmental health indicators in relation to these developments, especially the reproduction in developing countries of health and disease patterns similar to developed countries in their industrializing early stages;

Some general issues will be discussed as important background:

- the pressure for industrialization in the developing countries is greater than for developed countries in their industrial revolutions and therefore the political and immediate economic sacrifices of slowing down growth for environmental health reasons are higher

and frequently resisted;

- Poverty has been the cause of greater environmental health damage than the impact of industrialization, measured by the numbers of people it has affected. If industrialization serves and employs a minority of people, then policies to encourage its further growth can be at the expense of poorer agricultural sectors, employing and serving more people. For instance, encouraging industry and industrialized export cash crops can and has reduced basic staple food production.
- perspective needs to be maintained as far as possible on the net impacts on environmental health of industrialization. There is a positive overall correlation of industrialisation with health indicators at low levels of development. Examples can be given of the way in which industrialization has utilised science and technology to create a better infrastructure of environmental health. Industrialization has and can increase wealth to a point where the costs of health can be supported and the leisure also afforded by wealth can be used to improve health. The problem in this case lies not with industrialization but with the distribution of its benefits. Because these arguments raise wider issues, they can be mentioned in this context if not explored in depth with the major issues of chapter 2.

In the definitions of industrialization there will be an attempt to exclude the general influences of development as well as the major health impacts of urbanization which cannot directly be attributed to industrialization. It is on rapid industrialization that the study will focus, for it is seen that here environmental health impacts are likely to be more sharply felt.

A broad and selective definition will be taken of both industrialization¹ and environmental health² in order that there should be concentration made on the issues considered of importance for this review.

The introductory chapter will provide a justification for the indepth study of selected issues and topics and the framework within which they are to be considered. The following diagram may assist in understanding the suggested scheme. Four industrialization sectors (A-D) are related to four important areas of environmental health impact. Although nearly all the relationships will be covered, some particular areas are given special treatment, receiving either one or two starred emphasis.

¹ Industrialization is the process of change in the mode of production to utilize more capital per unit of output, higher levels of technology and management, widening markets with cost economies of scale and specialised location of plant, type of plant and labour skills. The concept has mainly been used to cover the manufacturing sector but the strong relation of other sectors with manufacturing and the adoption of parallel processes suggests a wider frame of reference.

² Environmental health is defined as a state of ecological balance between man and his total environment (physical, psychosocial and cultural) ensuring complete physical and mental well-being and not merely the absence of environmentally related disease or infirmity. Environmental health programmes are concerned with the assessment of health effects of environmental conditions, with the prevention and control of environmental hazards, and with the improvement of environmental quality needed to achieve environmental health as defined here.

Environmental Health Impact Areas		Industrialization Sectors in the Review			
		Small scale and informal sector industry	Large scale modern urban based industry	Mining and other resource based industry	Agro-industry and industrialization of agriculture
		A	B	C	D
1.	Working conditions	**	**	**	*
2.	Migration and Health Infrastructure	*	*	*	
3.	The spread of health impacts	**	**	**	*
4.	The uses and misuses of industrial products (chemicals, proprietary foods)				**

Section 2 - Identification of the major impacts of industrialization on environmental health

This section of the report is intended to give a brief but systematic description of the various impacts which the process of industrialization may have on environmental health. An attempt will be made to identify those aspects which are thought to be major, describe them briefly and provide quantitative data whenever possible. Although both the positive and the negative impacts will be considered, emphasis will need to be placed on the adverse effects. This section is meant to provide the framework within which the activities of the international organizations would be considered.

The following is a suggested outline for this section of the report. The impact areas are organized into the four major groups suggested above. Headings within the four impact areas (summarised and numbered in the annex) will focus around the four industrialization sectors but will be chosen to represent major issues and will be selective.

I. Working Conditions

1. Changing patterns of work resulting from the industrialization trends depicted in the introduction, comparing the industrialization sectors (A-D) and covering work time and remuneration, work organization, ownership control and industrial organization, in their effect on occupational risks, stress and occupational health;

2. The changing pattern of occupational risks, stress and occupational health from statistics, trends and country case studies, covering accidents, dust, chemical, metals, solvents, and other air-borne pollutants, comparing the industrialization sectors (A-D).
Industrialized agriculture is included in the review at this point because health risks are relatively greater moving rapidly from more traditional patterns of work to industrialized ones, compared with moves from small scale to large scale industry.
3. Prevention procedures examined for their effectiveness and their coverage in relation to the rapidly changing areas of priority need. Are these more in the small scale informal sector or the large scale?
4. National policies for legislation, enforcement, codes and guides, information exchange, project formulation procedures also compared for their effectiveness in covering the industrialization sectors (A-D).

II. Migration and Health Infrastructures

1. Industrialization as a cause of migration
 - (i) towards modern sector industries;
 - (ii) towards informal sector industries;
2. The direct environmental health impacts of migration illustrated by case studies covering A-D industrialization sectors;
 - (i) the transmission of diseases of the migrant to the host;
 - (ii) the passage of diseases from the host to the migrant;
 - (iii) the greater health risks and accident proneness of migrant workers;
3. Industrially induced migration causing other related illness and acculturation in industrialization sectors A-D, examples from case studies:
 - (i) effects of breakdown in extended family and change to modern organizational forms;
 - (ii) social organization and environmental health in peripheral urban and other resettlement areas;
 - (iii) the environmental health implications, where only the male worker migrates are different from where the whole family migrates. Unplanned urban settlements may be a better sign of family mental health in developing countries than their absence, given the cost of urban housing.
4. Large and small scale migration streams and their impact on environmental infrastructure:
 - (i) are migrant workers housing of lower environmental health standards than the average or non-migrant workers of the same occupation and skill?
 - (ii) migration streams in relation to settlement size can cause particular environmental health infrastructure problems, especially when major investment thresholds are surpassed.

III. Industrialization and the Spread of Health Impacts

1. A separation is required of general environmental impact from specific health impacts. It is a question of assessing the relative importance of health externalities as against the total externalities caused, for instance, by pollution. The damage to health of workers within the industry must also be demarcated from damage to the general populace, with some assessment of the concentration and the spread effects of this damage. This section covers only damage to the general populace.
2. Small scale industry in rural surroundings will only rarely be polluting; however the possibilities of severe environmental health damage in the unplanned urban settlements, and the urban periphery of major metropolitan areas is possible, because of the close proximity of large numbers of smaller firms with housing areas.
3. The direct pollution damage caused by modern large scale urban industries in major towns and cities is subject to considerable variation. The poorest groups are least likely to escape to better housing areas. Regulations on plant location and pollution abatement can influence the result but the impact of large concentrations of industry are more difficult to remove. Indirect damage through poor quality municipal sewage and waste systems may intensify the direct industrial impacts.
4. The environmental health damage caused by certain large scale modern energy or resource based mining and processing industries is known to be considerable from case studies. Assessment is required of what generalizations can be made about such industries from the case studies. The answer will partly depend upon estimates of concentration of rural population around the plants, the spread and carrying capacity of the media of pollution transmission and the willingness of governments to enact and enforce abatement procedures.
5. Mention will be made of the health risks engendered by major agricultural development projects:
 - (i) irrigation schemes which increase shistosomiasis/parasitics/malaria
 - (ii) power schemes encouraging oncocerciasis;
 - (iii) excess fertilizer nutrients in lakes causing lake eutrophication and reduced surface water availability.
6. Consideration will be given to the question of the indirect environmental health impact of industrialization and the depletion of food resources over longer time horizons of:
 - (i) over fishing;
 - (ii) over grazing;
 - (iii) indirect impact of pollutants on food production.

7. Attention will be given to 1 and 4 above of selected aspects of health risks from:

- (i) air pollution
- (ii) fresh and sea water pollution
- (iii) toxic wastes
- (iv) noise pollution

Covering industrial and commercial accidents including radiation risks.

IV. The health implications of the uses and misuses of a range of industrial products in agro-business and industrialized agriculture.

1. Many manufactured products can be misused and cause individual cases of health damage or hurt from accidents. Most industrial products are harmless in normal use. Some manufacturers are careless of design and market products in which the health or accident risks are high as a result. Our concern is where a whole range of products may be marketed which carry unacceptably high environmental health risks. Therefore we have been highly selective in our choice of products to study.¹
2. Two topics are selected for this overview, first, the question of food additives, contaminants and residues of chemical inputs of early production stages and second, the problem of the possible inverse relation between the growth of staple foods processing industries and the nutrition of less well off people.
3. The first topic can be itself subdivided between the deliberate use of food additives and the unintentional acceptance of contaminants and residues, mainly from earlier production stages. The deliberate use of food additives occurs not only with the food processing manufacturing industry but also the fast growing industrialized agricultural production sector where vertical integration in association with the forward stage processors is encouraging solutions to marketing problems which may involve unduly high health risks. The second problem of food contaminants and wastes is aggravated by the understandable pressure to use chemicals to irradiate diseases like malaria as well as to rapidly increase the supply of basic staple foods, especially in tropical or sub-tropical regions.
4. The applicability of international standards and national enforcement procedures to developing countries is due for general review. The rapid growth of food industries in developing countries may not be matched by parallel standard setting and enforcement procedures. It is also not clear whether the import needs of developing countries are met with products conforming to content standards of the country exporting them.
5. The second topic can also be subdivided. There is first the problem covering all the family, of processed staple foods, sometimes being

¹We have for instance omitted consideration of the drug and tobacco industries because concerns have already received more adequate expression.

made more attractive for cooking and easy to prepare, but having low nutrition value in relation to cost and income of the less well off purchasers. The second problem area applies to babies and weaning infants who are being given diluted or unhygienically dispensed bottle-feeds and proprietary foods because of mothers increasing participation in the labour force.

Section 3 Activities of International Organizations

This section of the overview will consist of a review of the activities of international organizations presented in the light of the previously identified impacts of industrialization on environmental health (section 2). This review would constitute the most significant section of the report and should be given high priority.

At the moment six agencies are participating in the project and it is hoped that each agency would prepare a contribution for this section of the overview. It should summarize their activities as related to the previously identified impacts. Where possible, examples of the types of attention which are given to environmental problems would be highlighted. It would be desirable if this section could be organized in a format similar to section 2. After the individual contributions have been prepared they will be collated for a uniform presentation.

Section 4 and 5 Gaps and Recommendations

These sections of the overview paper will attempt to highlight the major gaps which need to be addressed. Recommendations will be made in this regard.

ANNEX

Main topics summarized (Numbers do not correspond to chapters)

1. Introduction Chapter

- 1.1 The pattern of industrial growth
- 1.2 Some general issues of industrialization as background topics

2. Working Conditions

- 2.1 Changing patterns of work *X Ind. LDCs*
- 2.2 Changing pattern of risks (health, stress, accidents) *X* *less
emphasis than
env't.*
- 2.3 Prevention procedure effectiveness and coverage
- 2.4 Effectiveness of National policies *→ guidelines - ? ?*

3. Migration and Health Infrastructure

- 3.1 Industrialization as cause of migration
- 3.2 Case studies of migration and disease
- 3.3 Case studies of migration and stress, uprooting, acculturation
- 3.4 Migration and environmental health infrastructure

4. Industrialization and the Spread of Health Risks

- 4.1 Small scale and informal sector industry and environmental health damage from pollution ; *>> heavy inv. for unit product*
- 4.2 Large scale modern urban industry and pollution health damage *DFC*
- 4.3 Resource based industries and health damage *—*
- 4.4 Health risks of large scale agricultural development projects *— irrigation, as* *malware
shisho
sancho*
- 4.5 Indirect impact through damage to food sources
- 4.6 Selected health aspects of different forms of pollution *—*

5. Uses and Misuses of Industrial Products in Agribusiness and Industrialized Agriculture

- 5.1 Deliberate use of food additives
- 5.2 Unintentional acceptance of contaminants and residues in foods
- 5.3 Processed staple foods and lowered nutrition
- 5.4 Reduction in breast feeding and industrially produced baby foods.

5.5. Pesticides — (the guidelines)



THE UNIVERSITY OF NORTH CAROLINA
AT
CHAPEL HILL

The School of Public Health
Department of
Environmental Sciences and Engineering

The University of North Carolina at Chapel Hill
Rosenau Hall 201 H
Chapel Hill, N.C. 27514

919/966-1023

April 24, 1978

Publishing Department
World Bank
1818 H Street
Washington, DC 20433

Dear Sir:

Under contract with the US Agency for International Development we have been conducting an International Program on the Environmental Aspects of Industrial Development (IPEAID) for officials from developing countries. In connection with this program we have prepared looseleaf bound manuals as references for those participants.

We are now preparing this manual for the use of those who might be in position to organize such seminars in their own countries. These manuals are to be distributed at no charge to selected government officials in developing countries.

We hereby request your permission to include the material listed below in our manual:

World Bank. The World Bank, Industrial Development and the Environment, World Bank, Washington, D. C.

World Bank. Manual on General Environmental Protection for the Industrial Sector, The World Bank, Washington, DC (1977).

Your cooperation in this is very much appreciated.

Sincerely yours,

Daniel A. Okun

Daniel A. Okun
Kenan Professor of
Environmental Engineering, and
IPEAID Director

DAO:pc

Phone May 25 H

I said that we'll answer around June 15 H

S - Environment & Health

Phone June 13 H after seeing

OK 76 Hwy location source

H June 13 H

RECEIVED

1978 APR 27 PM 3:16

INCOMING MAIL UNIT



CONSUMERS ASSOCIATION OF PENANG

Talipon 63516

Our ref : CAP 200/78/R

24 April 1978

Dr Robert J A Goodland
Department of Environment Assessment
Chairman
Cary Arboretum
New York Botanical Gardens
New York
New York
UNITED STATES OF AMERICA.

Dear Dr Goodland

The Consumers' Association of Penang (CAP) takes note of a recent reference in an article in The Ecologist that you have carried out environmental studies in Malaysia, and we shall be very grateful if you will kindly forward us copies of your Study which may be of interest to our activities.

2. To introduce ourselves, the Consumers' Association of Penang (CAP), unlike most product testing consumer bodies, has been campaigning, for the last eight years of its existence, for a better environment. Within our developing country, highlighting the effects of industrialization, we have continually questioned this unplanned growth and have educated young people, housewives and teachers about the consequences of this intrusion. We have also organised peasants and fishermen against capital-intensive industries which have had direct detrimental effects on their livelihood.

3. We also do a great deal of research and publications and we would like to forward some copies of our recent publications which may be of interest to you.

4. The Consumers' Association of Penang and the School of Biological Sciences of the University Sains Malaysia are organising a five-day Symposium on the Malaysian Environment in the third week of September, from 16 - 20 of the month.

5. This Symposium is planned as a follow-up of the Seminar on 'Modernization and the Environment' which was held on March 30 and 31, 1974, in Penang. The last Seminar, which was organised jointly with the Penang branch of the Malayan Nature Society, was received with great enthusiasm by the public and has gone a long way in establishing much of the environmental awareness that is seen in our country.

6. The other major achievements of the 1974 Seminar was the 'Declaration on the Malaysian Environment' and the subsequent introduction of the Environmental Quality Act, 127, 1974 by the Federal Government and the setting up of the Division of Environment, under the Ministry of Science, Technology and the Environment, recently.

..2/=

When Replying Please Quote Our Reference

24 April 1978

Dr Robert J A Goodland.

7. Since then, much activity has taken place in the name of development in Malaysia. Problems of pollution have also been on the increase and are seriously affecting a significant proportion of our people and initial signs of other environmental problems, probably more serious ones, are being brought to light through research activities of our Association and the Academicians.

8. The proposed Symposium and one of its major highlight is our attempt to bring together research personnel, Government officials, other concerned persons on the Environment, as well as people from affected areas in the local context so that synthesis of research findings can be done, and that such findings can be translated into practical terms for the understanding and benefits of the ordinary man in the street and the village. Plans for the Symposium will also include a half-day session with representation of views from representatives of affected areas (case studies), and a one-day field trip as part of the session on Experiential Learning.

9. Identification of environmental problems have also become a necessity for an increased awareness campaign. The urgency to find practical solutions with economic implications is also understood. Hence, the importance of this Symposium.

10. Plans for a schools' exhibition and a photography competition on the Malaysian Environment has been drawn up in conjunction with the 5-day Symposium.

11. CAP is also interested in involving the participation of representatives from environmental groups from other countries, with preference to Third World Groups (NGO Level), who may contribute in sharing their experience on environmental activities and methodologies.

12. CAP would also like to take this opportunity to account for this letter as an invitation to you, to be present at our Symposium which is fixed to run from 16 - 20 September, 1978. It would also be an honour for CAP to have an experienced personnel on environmental issues as you at our Symposium, and also present a paper of your interest.

13. Due to funding limitations to the Symposium, we would be very grateful if you could finance your travel to and fro. All internal travel, as well as accommodation, will be met with by CAP. Enclosed, please find second circular on the Symposium that has been sent out to the various institutions and organisations.

14. Dr M G Royston, Faculty Member, Environmental Management, Centre for Education in International Management in Geneva, has already accepted our invitation and agreed to present 2 papers.

Your early reply will be greatly appreciated.

Thanking you.

Yours sincerely


(RAJEANDRAN)
Research Officer.

R/k

Seminar on modernisation and the environment



Organised jointly by the
Penang Branch of the Malaysian Nature Society
and the Consumers Association of Penang
30TH. — 31ST. MARCH, 1974
Dewan Sri Pinang, Penang, Malaysia

DECLARATION

THE Seminar on "Modernisation and the Environment" HAVING MET at Penang from 30th to 31st March 1974 and HAVING CONSIDERED the need for a common outlook and for common principles to inspire and guide the Government and the people of this country in the preservation and enhancement of the environment they live in,

PROCLAIM

1.1. In our development and the opportunity to the better quality of life. Wrongly or heedlessly applied, the same power can do incalculable harm to human beings and the environment at large. We see around us growing evidence of man-made harm: varying levels of pollution in water, air, earth and living beings; undesirable disturbances to the ecological balance of the biospheres; destruction and depletion of irreplaceable resources; deficiencies harmful to the physical, mental and social health of man, in the living and working environment.

1.2. The protection and improvement of this environment of ours is a major issue which affects the well-being of the people and economic development throughout the country; it is the urgent desire of the people of this country and the duty of the government.

1.3. In this country, as in most developing nations of the world, environmental problems are caused both by development and under-development. Much of the rural populations still live far below the minimum levels required for a decent human existence, deprived of adequate nourishment and clothing, shelter and education, health and sanitation. Therefore, a developing country, such as ours, must direct her efforts to development, bearing in mind her priorities and the need to safe-guard and improve her environment, and considering the fact that modernisation through industrialisation and technological development also generate environmental problems.

1.4. A point has been reached when we must shape our actions with a more prudent care for their environmental consequences. Through ignorance and indifference we can do massive and irreversible harm to our environment on which our life and well-being depend. Conversely, through fuller knowledge and wiser action, we can achieve for ourselves and our posterity a better life in an environment more in keeping with human needs and hopes. For the purpose of attaining freedom in the world of nature, man must use knowledge to build in collaboration with nature a better environment. To defend and improve the environment for present and future generations has become an imperative goal for mankind — a goal to be pursued together with, and in harmony with, the established and fundamental goals of peace and of world-wide economic and social development.

1.5. To achieve this environmental goal will demand the acceptance of responsibility by citizens and communities and by enterprises and institutions at every level, all sharing equitably in common efforts. Individuals in all walks of life as well as organisations in many fields, by their values and the sum of their actions, will shape our environment of the future. The government will bear the greatest burden for large-scale environmental policy and action within its jurisdictions. Agriculture will have to progress to feed the masses and industries will have to play a vital role in the economy of the nation. The aesthetic value of a clean environment, nevertheless, should not be disregarded. This Seminar now calls upon the Government and the people to exert common efforts for the preservation and improvement of the environment we live in for the benefit of all and for their posterity.

PRINCIPLES

2. STATES THE COMMON CONVICTION THAT

2.1. The people of this country have the fundamental right to adequate conditions of life, in an environ-

ment of a quality which permits the improvement of the environment for present and future generations.

2.2. The natural resources of this country including the air, water, land, flora and fauna and especially representative samples of natural ecosystems must be safe-guarded for the benefit of present and future generations through careful planning or management as appropriate.

2.3. The capacity of our environment to produce vital renewable resources must be maintained and wherever practicable restored and improved.

2.4. The non-renewable resources of our environment must be deployed in such a way as to guard against the danger of their future exhaustion and to ensure that benefits from such deployment are shared by all.

2.5. The discharge into the environment of toxic or dangerous substances or of other substances, especially if they are persistent in the environment such as heavy metals and organochlorine compounds, in such quantities or concentrations as to exceed the capacity of the environment to render them harmless, must be minimised or totally halted in order to ensure that serious or irreversible damage is not inflicted upon human beings or ecosystems.

2.6. All possible steps should be taken to prevent pollution of the seas and inland waters by substances that are liable to create hazards to human health, to harm living resources and aquatic life, to damage amenities or to interfere with other legitimate uses of the aquatic habitat.

2.7. The people of the country have a special responsibility to safeguard and wisely manage the heritage of wildlife and its habitat which are now gravely imperilled by a combination of adverse factors. Nature conservation including wildlife must therefore be given due regard in the planning for economic and social development.

2.8. Environmental deficiencies generated by the conditions of underdevelopment and natural disasters pose grave problems and can best be remedied by accelerated development through the transfer of substantial quantities of financial and technological assistance by the Federal Government as a supplement to the domestic efforts of the individual states.

2.9. The environmental policies of the Government should enhance and not adversely affect the present or future development potential of this country, nor should they hamper the attainment of better living conditions for all.

2.10. In order to achieve a more rational management of resources and thus to improve the environment, there should be an integrated and co-ordinated approach to development planning so as to ensure that development is compatible with the need to protect and improve the environment.

2.11. Planning must be applied to human settlements and urbanisation with a view to avoiding adverse effects on the environment and obtaining maximum social, economic and environmental benefits for all.

2.12. Modernisation through economic and social development is essential for ensuring a favourable living and working environment for man and for creating conditions that are necessary for the improvement of the quality of life.

2.13. Appropriate national institutions must be entrusted with the task of planning, managing or controlling the environmental resources of the country with the view to enhancing environmental quality.

2.14. Science and technology, as part of their con-

tribution to modernisation through economic development, must be applied to the identification, avoidance and control of environmental problems.

Education in environmental matters, for generation as well as adults, is essential to broaden the basis for an enlightened and responsible conduct by individuals, enterprises in protecting and improving the environment. It is also essential that mass dissemination avoid contributing to the development of an environment, but, on the other hand, in order to enable

2.16. Science and development and multi-disciplinary problems, both in the context of the environment, must be sought to be sought in a wide dissemination of knowledge and information by all, on a multi-lateral basis, appropriate to the prevention, reduction of effects resulting from the spheres.

2.17. The environment of individuals, big or small, by all, on a multi-lateral basis, appropriate to the prevention, reduction of effects resulting from the spheres.

2.18. Man and the environment, effects of a development, save the environment, move when the environment is deplorable.

2.19. Early action, save the environment, move when the environment is deplorable.

2.A. The Government should strengthen the wider representation of the interests of the people in the guarded

ACTION PROPOSALS

3. SPECIALLY RECOMMENDED GOVERNMENT

3.1. The Environmental Quality Commission and its members should be formed immediately in order to carry out the centralised planning functions in the centralised planning control programmes and to coordinate all concerned parties (viz. research, Government and quasi-Government, private sector) in a nation-wide environmental pollution in the atmosphere and aquatic regimes.

3.2. The Government adopts the public hearings, at State and National levels, of all interested and considered and disseminated public measures in the implementation of the environment.

3.3. The Environmental Quality Commission strengthened by adding to its Secretary General of the Ministry of Fisheries or his authorised representative Ministry deals primarily with function directly dependent on the environment and aquatic environment.

ment of a quality which permits a life of dignity and well being, and a solemn responsibility to protect and improve the environment for present and future generations.

2. The natural resources of this country including the air, water, land, flora and fauna and especially representative samples of natural ecosystems must be safeguarded for the benefit of present and future generations through careful planning or management appropriate.

3. The capacity of our environment to produce renewable resources must be maintained and wherever practicable restored and improved.

4. The non-renewable resources of our environment must be deployed in such a way as to guard against the danger of their future exhaustion and to ensure that benefits from such deployment are shared.

5. The discharge into the environment of toxic or corrosive substances or of other substances, especially those which are persistent in the environment such as heavy metals and organochlorine compounds, in such quantities or concentrations as to exceed the capacity of the environment to render them harmless, must be controlled or totally halted in order to ensure that no irreversible damage is not inflicted upon the environment or its ecosystems.

6. All possible steps should be taken to prevent pollution of the seas and inland waters by substances liable to create hazards to human health, to damage living resources and aquatic life, to damage the environment or to interfere with other legitimate uses of the marine or aquatic habitat.

7. The people of the country have a special responsibility to safeguard and wisely manage the natural resources and its habitat which are now threatened by a combination of adverse factors. Conservation including wildlife must therefore be given due regard in the planning for economic and social development.

8. Environmental deficiencies generated by the process of underdevelopment and natural disasters and problems and can best be remedied by development through the transfer of technology, financial and technological resources from the Federal Government as a supplement to the efforts of the individual states.

9. Environmental policies of the Government should be such as not adversely affect the present and potential development of this country, nor hamper the attainment of better living standards for all.

10. To achieve a more rational management of the environment and thus to improve the environment, there must be an integrated and co-ordinated development planning so as to ensure that the environment is compatible with the need to protect the environment.

11. Environmental planning must be applied to human settlements with a view to avoiding adverse effects on the environment and obtaining maximum economic and environmental benefits for all.

12. Development through economic and social progress is essential for ensuring a favourable environment for man and for the well-being of the nation and for the improvement of life.

13. National institutions must be established for the task of planning, managing or conserving the natural resources of the country and enhancing environmental quality.

14. The application of modern technology, as part of their conservation to modernisation through economic and social development, must be applied to the identification, avoidance and control of environmental risks and the solution of environmental problems.

15. Education in environmental matters, for the younger generation as well as adults, is essential in order to broaden the basis for an enlightened opinion and responsible conduct by individuals, enterprises and communities in protecting and improving the total environment. It is also essential that mass media of communications avoid contributing to the deterioration of the environment, but, on the contrary, disseminate information in order to enable man to develop in every respect.

16. Scientific research and development in the context of environmental problems, both national and multinational must be promoted. In this connection, the free flow of up-to-date scientific information and transfer of experience must be supported and assisted, to facilitate the solution of environmental problems; environmental technologies should be sought on terms which would encourage their wide dissemination without constituting an economic burden on the country.

17. The protection and enhancement of the environment should be the special responsibility of individuals, communities, institutions and enterprises, big or small, and be handled in a co-operative spirit by all, on an equal footing. Co-operation through multi-lateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres.

18. Man and his environment must be spared the effects of all means of mass destruction.

19. Early action on environmental protection would save the country much more than to attempt such a move when the situation has deteriorated into a deplorable state.

20. The Environment Quality Council should be strengthened by increasing its membership to include wider representation from the community, so that the interests of the citizens are adequately safeguarded.

ACTION PROPOSALS

3. SPECIALLY RECOMMENDS TO THE GOVERNMENT THAT

3.1. The Environmental Quality Act and the regulations and orders made thereunder be brought into force immediately in order to carry out the primary functions in the centralised planning of pollution control programmes and to coordinate activities of all concerned parties (viz. research establishments, Government and quasi-Government bodies and the private sector) in a nation-wide effort to control environmental pollution in the atmospheric, terrestrial and aquatic regimes.

3.2. The Government adopts the practice of having public hearings, at State and National levels, at which opinions of all interested and concerned parties are considered and disseminated prior to any specific measures in the implementation of the Act.

3.3. The Environmental Quality Council be strengthened by adding to its membership the Secretary General of the Ministry of Agriculture and Fisheries or his authorised representative since his Ministry deals primarily with food production, a function directly dependent on the quality of terrestrial and aquatic environments.

3.4. The Government draws up a complete inventory or registry of pollution to record all sources (industrial, agricultural and otherwise) contributing to environmental deterioration. This inventory should besides listing the sources, also identify and record against each source all pollutants emitted or released in their wastes, the rates and quantities of discharge and whether such sources have incorporated control measures to minimise pollution and if so the type of controls. The inventory would somewhat help to define the status of pollution in this country, and also to forecast the environmental situation in the years to come.

3.5. Baseline studies be carried out, rallying the support of all research establishments in the country, to establish levels of pollution in atmospheric, terrestrial and aquatic regimes, and in particular toxic pollutant residues accumulated in living organisms right down to the primary producers and in animal feed and food consumed by human beings.

3.6. A major effort be undertaken to develop monitoring and research programmes, following upon the Pollution Inventory and Baseline Studies, to keep a constant vigil so as to be able to detect deteriorating trends in the pollution situation and to take appropriate measures to check such trends. Monitoring programmes will mainly be centred around water quality in inland and coastal areas, air quality in inland and coastal areas, air quality in industrial estates, urban areas and highways, the process of land erosion resulting from mining and forest clearance, the accumulation of persistent toxicants in aquatic and terrestrial life, meteorological conditions, etc.

3.7. Nature conservation be given full regard in the national physical planning, demarcating areas for the preservation and conservation of nature and wildlife against exploitation. Areas of special scientific and recreational value, to mention a few, the breeding grounds of fish in inland and coastal waters, geological formations, sanctuaries of birds and other wildlife and plants, the little disturbed upper reaches of riverine watersheds and coral beds in coastal waters, should be declared as nature reserves, and where significantly important, as national parks.

3.8. The island group of Pulau Paya, Pulau Kacha, Pulau Lumbu and Pulau Segantang be declared as Malaysia's first Marine National Park. These coral islands are Malaysia's only clear water representative of the Indian Ocean environment. They are uninhabited and, being positioned between two major developing tourist centres of Penang and Langkawi, can become an important element of the tourist industry.

3.9. Investigations be carried out on the contamination of primary human food commodities, either raw or processed, and in particular, grain derivatives, fish, meat, milk and vegetables and from a study of levels of acceptability for human consumption established elsewhere, declare local standards by prohibiting the sale or consumption of food carrying levels of contamination that can be a threat to human health.

3.10. Legislation be enacted to set up minimum standards of dress, conduct and hygiene for persons involved in the preparation, handling and supply of matter meant for human consumption.

3.11. In the physical planning of the country adequate parks and recreational areas be provided for the common benefit of all. Industrial estates should be sited in areas remote from and having least conservation or recreational interests. They should not be sited in the vicinity of areas valuable to human habitations. The development of beach resorts with the construction of a large number of massive hotels just

to promote tourism and to provide pleasure and recreation for the affluent foreigners at the expense of destroying our scenic beaches and thereby depriving the people of this country the pleasures of such recreational areas, should be totally discouraged.

3.12. Positive steps be taken to ensure the development and preservation of greenery in urban areas, and in particular, the indiscriminate cutting down of trees be prohibited.

3.13. The activities of construction companies, such as clearing of land for buildings or other structures, singly or in groups, be regulated by enforceable laws which ensure that environmental damage is minimised and that common damages be legally made the fiscal responsibility of the contractor and/or his agents. All such construction company activities be required by law to include environmental repair or improvement, including "Green Belt" and other planting clauses.

3.14. The clearance of primary forests for land development and the exploitation of timber be carried out with extreme caution and increased control, to avoid the risks of irrecoverable loss of valuable top soil from erosion, the increasing threats of flooding in riverine areas due to excessive silting, and the irrecoverable loss of aquatic life in both riverine and coastal areas, to ensure adequate reservations of catchment areas and the maintenance of oxygen-carbon dioxide balance in the environment. The excess of cutting over regeneration in our permanent forest reserves should be stopped for good.

3.15. Extreme caution be exercised in inviting foreign investments into the country for the setting up of industries, particularly those whose main objective is to produce end products at minimal costs and at the expense of polluting our environment and resulting in the displacement of local industries using natural grown material. To mention a few, the paper and pulp, chemical and petrochemical, and the plastic industries, all of which have already been branded as the main polluters of the environment in industrialised nations, are now faced with the problem of high production costs due to stringent legislation requiring them to have efficient control devices to minimise pollution. Industrialists in these advanced countries are therefore looking forward to investment opportunities in the developing nations of the world where environmental legislation is weak or altogether non-existent.

3.16. Environmental education be introduced in the curriculum of educational institutions at all levels to instil in the young and old a sense of concern for the problems faced by the environment they live in. In this respect environmental topics should be highlighted through the mass media.

3.17. The presently inadequate human resources, in the form of scientists and other specialists primarily concerned with the understanding, management, recovery and amelioration of the environment, be officially recognised and that a commitment be made to augment the supply of such specialists.

3.18. To be prepared for accidental oil spills in our harbours and coastal waters the immediate responsibility to combat oil pollution be jointly vested on such coastal authorities as the navy, the marine police, the customs, the fisheries patrol and the port administration, who should be well equipped with stores and staff trained for the purpose.

3.19. The emission of unacceptable quantities of exhaust fumes from automobiles and other internal combustion machines, resulting from incomplete combustion, should be strictly prohibited and owners

of such automobiles be subjected to heavy penalties for being responsible for the act of polluting the clean air we breathe. In this respect regulations should be brought into force requiring all such machines to undergo annual compulsory checks for fuel combustion apart from other safety features.

3.20. The discharge of untreated or partially treated refuse and sewage, into aquatic receptacles should be controlled as far as possible, so as to prevent a build up of pathogens in the aquatic environment as well as in aquatic organisms which serve directly or indirectly as food to man. Methods of sewage treatment prior to discharge should be improved, ideally to the level of tertiary treatment so that the sludge and other organic substances resulting from the treatment, when allowed to compost together with substances like sawdust, can serve as valuable organic fertilizer.

3.21. A check be made into the type of detergents imported from overseas and those sold in local markets for domestic use. Generally two types of detergents are produced by the petrochemical industries in advanced nations - those that are biodegradable in water and hence are desirable for use since they do not have prolonged toxic effects on aquatic organisms, and those that are non-biodegradable in water thereby having persistent toxic effects on aquatic organisms. The sale and use of the latter type has been banned in certain countries producing them owing to their prolonged deleterious effects on aquatic life and hence this detergent has been sold at low costs to countries that are indifferent to the type of detergents used.

3.22. The import, production and sale in the open market and use of highly potent pesticides and other drugs, for agricultural pest control, weed eradication, human health treatment and health vector control, should be strictly controlled or totally banned where applicable until it has been demonstrated that their release will not give rise to unacceptable risks, or their consumption will not lead to addiction, or unless their use is essential to human health or food production. In this respect the practice of spraying toxic fungicides on harvested vegetables in this country so as to fetch better market prices should be totally disallowed. The use of Thiodan (an organophosphorus compound highly toxic to fish) against padi stem borers in this country should be banned.

3.23. In the interests of health and to protect non-smokers, smoking be banned in public places and all places to which the public has access. In this respect legislation should be enacted, firstly, to require a health warning on all tobacco and cigarette containers, and secondly, to curtail all forms of advertisement promoting the use of tobacco.

3.24. Research programmes in the biological control of agricultural and other pests be promoted and strengthened in this country as a step towards discarding the popular practice of pest control by the use of chemical pesticides.

3.25. A National Environment Fund be set up with Government subsidies and gathering the full support of industries and other polluting agents in the private sector to make annual compulsory contributions (as in the case of the Rubber Research Cess) towards the Fund. This Fund shall be used for the operation of the national machinery for environmental pollution control, including research.

3.26. A new chapter be introduced under the framework of ASEAN to seek regional cooperation in environmental pollution control. Pollution knows no national or political boundaries, since contaminated air and water move over greater distances and over several nations in a region.

WLD CIRCULAR

5 DAY SYMPOSIUM : THE ENVIRONMENT IN MALAYSIA

Proposed date : 16 - 20 September, 1978

Venue : Penang

Organised by : Consumers' Association of Penang and School of Biological Sciences, University Sains Malaysia, Penang, Malaysia.

Dear Friends

The first circular of the Symposium was out a few months ago. We have now consolidated many of our ideas concerning the Symposium and other associated programmes. We shall be pleased if you or one of your friends whom we might have missed sending a circular, could contribute to this Symposium. Please write to us if you would like to know about the Symposium.

Objectives :

The Seminar on Modernization and the Environment was held on March 30 and 31 1974 in Penang with much enthusiasm. Since then much had taken place in the name of development in Malaysia. As a follow-up of the last Seminar, a five-day Symposium on the Environment in Malaysia is planned in the third week of September 1978. The aims are to assess :-

- i. the damage to the environment
- ii. public awareness of the deterioration of the environment on the quality of life and
- iii. to formulate a responsible plan for action in which all Malaysians can contribute to a higher quality of life.

Subjects

The Symposium would welcome original/review papers with action proposals on the environment with special reference to Malaysia. Papers should be regulated to the following broad topics :-

- a. Aquatic and Terrestrial Resources and the Natural Habitat
- b. Agriculture, Forestry and the Environment
- c. Industrialization and the Environment
- d. Conservation of the Environment and future prospects
- e. Economic aspects and Legislation on the Environment.

Submission of Papers

Approximately 30 selected papers will be read with 10 minutes for presentation of each paper. Other accepted papers will be discussed during the appropriate sessions. Authors of papers are given the opportunity to participate in the discussions.

Intending authors are requested to submit the full titles of their papers and abstracts (not more than 200 words) before 15 July 1978. On notification of acceptance of the abstracts, authors must send in their full text (typed double-spaced) together with all illustrations, to reach the Secretary before 15 August 1978.

Preprints

Preprints will be distributed to participants during the Symposium. The proceedings of the Symposium will be published shortly after the Symposium.

Registration

Registration is free for participants.

Accommodation

Economic rates of accommodation could be arranged.

Venue

The Symposium will be held in Penang in the third week of September 1978.

Financial Support

There is a good possibility that partial monetary support be made available for outstation speakers.

Correspondence

The Secretary, Symposium on the Environment in Malaysia
c/o Consumers Association of Penang, 21-C Codrington Avenue, Penang.
Telephone No : 63516/20361

- * The proceedings printed as 'The Battle for the Environment - the Malaysian Experience' and can be obtained from CAP at \$7.50¢ per copy.

TO :



The 6th Technicon International Symposium on
Environmental Changes and Biological Response

Sextum Technicon Inter Gentes Symposium de
Ambientalis Mutationibus et Biologicis Responsis

July 7-9, 1978, International Convention Hall, Sasakawa Hall, Tokyo

S. Environment & Health

Mr. James A. Lee
Environmental and Health Adviser
Office of Environmental and Health Affairs
World Bank
1818 H Street N.W.
Washington, D.C.
20433 U. S. A.

21st April, 1978

Dear Mr. Lee,

According to our letter of April 7, we are not in receipt of your abstract yet and therefore kindly let us have your abstract promptly as previously mentioned in our telex of April 7 that an abstract booklet may be printed in the end of April for distribution to attendance. However, if you have already sent your abstract, please ignore this reminder.

Furthermore, we would be grateful if you kindly prepare a full manuscript according to the enclosed instructions. The requested full manuscript shall be presented to the simultaneous interpreters in advance for the Medical Economics Session held on July 7, so that a good interpretation may be carried out to your satisfaction. Your full manuscript shall appear on the Symposium Book to be edited later.

At the same time, could you please send us a small profile photograph of yourself which may be used for the printed matter of the Symposium.

Enclosed please find the revised program for your reference.

Yours sincerely,

K. Kawasaki

Preparatory Committee for The 6th
Technicon International Symposium

c.c.: World Bank, Tokyo Branch

Preparatory Committee for The 6th Technicon International Symposium

Hazama Building, 5-8 Kita-Aoyama 2-chome, Minato-ku, Tokyo 107 Japan

Telephone: (03)-405-7311 Telex: 242-3592 TECHJA J Cable Address: AUTOANAL TECH

Instructions for Manuscript

1. Use letter size paper and submit to:

Preparatory Committee for the 6th
Technicon International Symposium

Hazama Building,
5-8, Kita-Aoyama 2-chome
Minato-ku, Tokyo
107 Japan

2. Manuscript shall be in English within 3,000 words
and be typed double spaced with 2 to 3 cm
margins on left and right.
3. Each tables, illustrations and graphs shall not be
counted as within the above limitation of words.
4. References and bibliographies shall be confined
to the minimum.
5. Deadline for submission is June 15, 1978.
6. Submitted manuscript shall not be returned.

Notabilia for 35mm Slide Film

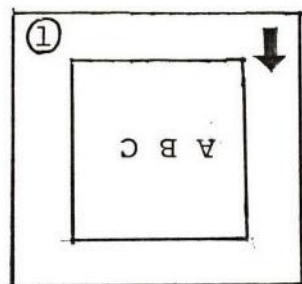
In case where 35mm slide(s) is used while reading a paper at the session, please submit them to Preparatory Committee, strictly attending to the following matters:

1. Indication of top and bottom

Indicate the direction of slide by an arrow to be inserted down into film holder of projector as in the figure below.

2. Indication of order

Indicate the order to be projected by a numeral at the upper left side.



(The front is the side of
luminescent source)

3. 35mm slide film shall be returned later from
Preparatory Committee.

5-Env + Health

April 18, 1978

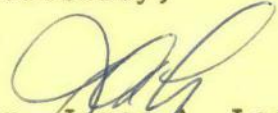
Dear Mr. Toenniessen:

✓ April 11/78

I am in receipt of your recent letter regarding Dr. Goodland's participation in your conference on sustained productivity in tropical rain forests.

Depending upon Dr. Goodland's availability on May 18, I would be pleased to see him join with you and your colleagues in this meeting. He is presently out of the country and I am uncertain as to his work/travel schedule for that date. Upon his return you can expect to hear from him.

Cordially,



Dr. James A. Lee
Director
Office of Environmental
and Health Affairs

Mr. Gary H. Toenniessen
Assistant Director
The Rockefeller Foundation
1133 Avenue of the Americas
New York, N.Y. 10036

cc: Dr. Goodland

JAL:on

Dr James A Lee
Director
Environmental & Health
Affairs
World Bank

1 Denning Road
London NW3

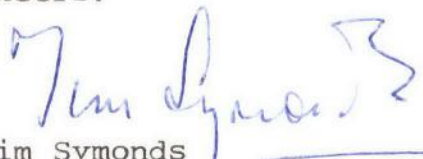
April 18th 1978

Dear Dr Lee

Many thanks for your courteous letter of April 12th. I am sorry Mr McNamara is not able to attend: I have been aware of his activities from his Detroit days when I was an undergrad at UCLA. However, I enclose the typed schedule and a new more imposing schedule has already been prepared. There was some doubt about Dr Ba getting funds (can you believe this nonsense - the Director of the Sahel Institute unable to get to Europe to brief us!) but I believe that has been settled. My next moves involve a possible African Heads of State meeting in London to sign an agreement to cooperate across national borders and I expect a communication soon from the Presidents of Niger and Senegal setting out their expectations if such a meeting were to take place. I believe they will require an a priori firm offer of funds before assenting, funds which will be more than merely 'earmarked' but actually released. Anything you can let me have on this side of affairs could help significantly. I have been in touch with appropriate personnel in the European Communities to the same effect. May I ask you to let your contacts know that Dr Brennan of Kew is hosting a specialist event on May 16th to cover jojoba, quayule, and so on. Finally, I am in touch with President Duvalier and am considering going to Haiti this year to set up a specialist institute designed to bring in jojoba and the other Sonora shrubs of potential value, working closely with Arizona. Can you let me know where your Office might help in this I think worthy matter? I will need a great deal of help to make the institute both sound in agronomy and permanent.

I hope Spring has arrived in the Capital. It is doing its best here.

Cheers.


Tim Symonds

ROYAL GEOGRAPHICAL SOCIETY

In conjunction with the

ROYAL SOCIETY OF ARTS

Technical Meeting to be held at

The Royal Geographical Society

1 Kensington Gore

London SW7 2AR

Monday 15th May at 9.45 am

"SAHEL ECOLOGY: POSSIBLE IMPROVEMENT?"

Tentative list of speakers

Subject

9.45 am	Introduction by Chairman <u>Professor J P M Brenan</u> Director, Royal Botanic Gardens, Kew	
10.00 am	<u>Dr Gerald Wickens</u> Royal Botanic Gardens, Kew	Environmental Introduction
10.50 am	<u>Professor A T Grove</u> Department of Geography University of Cambridge	Geographical introduction to the Sahel
11.40 am	<u>Dr Jean-Claude Menaut</u> Laboratoire de Zoologie Ecole Normale Supérieure, Paris	Botanical researches in the Lamto Savannah
12.30 pm	<u>Dr Kenneth E Foster</u> and <u>William H Brooks</u> Office of Arid Land Studies University of Arizona	Agronomic aspects of jojoba and its potential in the Sahel
1.20 pm	LUNCH AT IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY	
2.30 pm	<u>Dr J Schechter</u> Director, Applied Research Institute University of the Negev, Israel	Vegetative propagation of woody species of the desert
3.20 pm	<u>Professor François Bourlière</u> Faculté de Médecine de Paris-Ouest Paris	Impredictibility & res- ilience. A Sahelian eco- system under stress: The Fété-Olé site, 1969-76
4.10 pm	<u>Dr William G McGinnies</u> Director Emeritus Office of Arid Land Studies University of Arizona	The potential of guayule in the Sahel
5.00 pm	TEA	

- 2 -

5.30 pm	<u>Dr Oumar Ba</u> Director, Institut du Sahel Bamako, Mali	The work of the Sahel Institute
6.20 pm	<u>Professor J L Cloudsley-Thompson</u> Department of Zoology Birkbeck College, London	Human activities and desert expansion
7.10 pm	CLOSING REMARKS BY CHAIRMAN	



Monitoring and Assessment Research Centre

Chelsea College

University of London

Postal address: MARC, The Octagon Building, 459A Fulham Road, London SW10 0QX
Telephone 01- 351 3577 Telex 915407 Cables ENVIROMOLE London SW10

W.14.2.7.

17 April 1978

Dear Chairman,

The Monitoring and Assessment Research Centre (MARC) of Chelsea College, University of London, is organizing a course on "Environmental Impact Assessment and Development". This course is designed for senior personnel from developing countries with responsibilities relating to the environment and development. The course will be held in September 1978. Details are contained in the attached brochure which is being widely circulated.

The funds involved in the preparation and organization of the course are fully covered by our core funds. However, we do anticipate that many good candidates, particularly from less developed countries, will only be able to participate if the cost of their travel fares and/or their course fees are covered. While we anticipate some help from United Kingdom and international sources, there is likely to be a shortfall in this area.

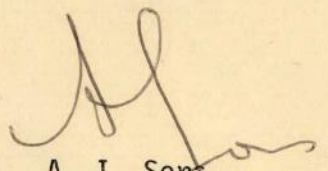
I am thus writing to inquire whether your organization would consider contributing towards the bursaries and travel scholarships needed to facilitate participation by developing countries. Details of these are contained in the brochure.

I attach some information on MARC, including a copy of its research programme. Please let me know if you require further information to reach a decision.

I look forward to hearing from you and very much hope you will be able to give this your favourable consideration.

Yours faithfully,

The Chairman
International Development Assoc.
1818 H Street,
N.W.
Washington D.C. 20433
U.S.A.


A. I. Sors
Acting Director

AIS/MBY

MONITORING AND ASSESSMENT RESEARCH CENTRE

Chelsea College, University of London

Three-week Course 3 - 23 September 1978

London and Aberdeen

ENVIRONMENTAL IMPACT ASSESSMENT AND DEVELOPMENT



Monitoring and Assessment Research Centre
The Octagon Building
459A Fulham Road, London SW10 0QX

Course organizers

The course is organized by the Monitoring and Assessment Research Centre (MARC) at Chelsea College, University of London, in collaboration with Project Appraisal for Development Control (PADC), University of Aberdeen.

Course applicants

The course is primarily designed for people with responsibility in government for co-ordinating planning of specific development projects or for those responsible for the co-ordination of environmental aspects of development. Applicants should be from developing countries.

Aims and objectives

The aims of the course are to review the principles and methods of environmental impact assessment and to examine and discuss the impacts of major development projects. The environmental, economic and social implications as well as administrative factors will be taken into account. Data and information requirements for feasibility studies on such projects and their alternatives will be considered.

It is intended that participants completing the course will be equipped to

- give guidance to government departments on the organization of environmental impact assessment and factors to be considered in relation to proposed development projects;
- direct consultants (e.g. from university departments, private companies, etc.) who may be responsible for data gathering or field investigations for the environmental impact assessment of a major development project;
- evaluate environmental impact assessment reports.

Course content

The course will take the form of lectures delivered by experts, followed by discussion, and participants will be encouraged to describe environmental problems of development drawn from their own experience. Group seminars, management games and field visits are also included. Contributions to the course will be made by personnel from universities, public bodies and consultants, most of them with considerable experience of major development projects in developing countries and of their effects on the environment.

Topics to be covered will include:

1. A brief review of the origins and principles of environmental impact assessment; current policy and procedures of selected countries (e.g. the U.S.A. and U.K.) and international agencies (e.g. the World Bank, the European Economic Community); and an appraisal of the effectiveness of impact assessment in certain countries.
2. Methods of environmental impact assessment: checklists, matrices, networks, systems analysis, quantitative methods, cost-benefit analysis and qualitative approaches. The role of impact assessment in resource management with emphasis on modelling.
3. Scope of impact assessment; the types and characteristics of environmental, social and economic impacts and the associated information requirements.
4. Relevant aspects of resource conservation.
5. Case history studies of the environmental impact of major development projects to include the following:
 - a description of the known main effects of the project on the environment and on man (including public health and socio-economic effects). Effects will be categorized as beneficial or adverse, direct or indirect, and short- or long-term.
 - an inventory of essential information requirements including any additional research and monitoring needs, both from the pre- and post-audit viewpoint. Details will be given of the most likely sources of existing information and of the methods to be used in the collection of additional data and information.
 - management techniques for the prevention or correction of any adverse effects on man and the environment with an indication of the increased costs, both direct and indirect, of implementing the techniques recommended. Techniques may include, for example, the installation of

pollution control equipment, or the use of land evaluation techniques (including remote sensing) to site the project in the optimum location.

Alternatives to the proposed project will be considered, including intermediate technology and low-cost/labour-intensive options.

Development projects to be examined may include:

- dams, irrigation schemes
- roads, airports, ports and harbours, pipelines
- power stations, hydroelectric schemes
- mining, including open cast, ore and coal extraction, offshore oil exploitation
- industrial projects, including iron and steel, textiles, pulp and paper, oil refineries

Applicants will be asked to indicate their preferences for case study and every effort will be made to accommodate these in the programme.

6. Management games. Participants will adopt the roles of planners, administrators, statutory authorities and environmental scientists and will be faced with the problem of assessing the environmental and socio-economic effects of a particular project. In this process, alternatives to the suggested project will also be considered. On the basis of their findings, the group will decide whether or not to go ahead with the project. If the decision is to go ahead, they will devise a management plan which will detail the measures to be taken to protect man and the environment and allow optimum conservation of resources. If the decision is not to go ahead, the alternatives will be examined in greater detail. If at all possible, it is hoped in this section to use case studies based on actual projects in which individual participants may have been involved.
7. Seminars on the implementation of environmental impact assessment. The group will discuss collectively and individually the value of environmental impact assessment in their country and how, if found relevant, it could be incorporated into their existing governmental machinery.
8. Visits will be made to specific development projects and works concerned with pollution control and to other relevant sites in the London and Aberdeen areas.



MONITORING AND ASSESSMENT RESEARCH CENTRE
Chelsea College, University of London

ENVIRONMENTAL IMPACT ASSESSMENT AND DEVELOPMENT

Three-week course: 3 - 23 September 1978
London and Aberdeen

APPLICATION FORM

1. Full name

2. Date of birth

3. Nationality

4. Address

5. Qualifications: Institute/University

Degree/Diploma

Institute/University

Degree/Diploma

6. Professional employment:

Current employment : Employer's name and address

Position

Description of duties

Previous employment : Employer's name and address

Position

Description of duties

7. Proficiency in English:

Reading	Fair <input type="checkbox"/>	Good <input type="checkbox"/>	Excellent <input type="checkbox"/>
Writing	Fair <input type="checkbox"/>	Good <input type="checkbox"/>	Excellent <input type="checkbox"/>
Speaking	Fair <input type="checkbox"/>	Good <input type="checkbox"/>	Excellent <input type="checkbox"/>

8. Do you wish to apply for (a) a MARC bursary YES/NO

(b) a MARC travel scholarship? YES/NO

(c) a TCTP bursary referred to on page 4 of the brochure? YES/NO

If YES to one or more of the above, please obtain
your employer's endorsement in the space provided

Signature of Employer

Signature of Applicant

PLEASE COMPLETE REVERSE

PLEASE GIVE THE FOLLOWING ADDITIONAL INFORMATION:

9. Have you been involved with the planning of development projects, particularly those to be covered in the course? YES/NO

Do you intend to be involved in such projects in the future? YES/NO

If YES, please indicate:

(a) the type of project

(b) which of the projects outlined in the brochure you are particularly interested in

(c) whether you would be able to bring with you maps, plans and other relevant information relating to a particular project in your country with which you have been concerned YES/NO

10. Provision is made for an extra week at the end of the formal course (24 - 30 September) to be spent visiting institutions of particular interest to the participant. Please indicate whether you are likely to make use of this extra week. YES/NO/MAYBE

If YES, please indicate

(a) your field of special interest

(b) any specific institute or organization you wish to visit

THE COMPLETED FORM MUST BE RECEIVED BY 1 JULY 1978 AND SHOULD BE ADDRESSED TO:

THE COURSE CO-ORDINATOR
MONITORING AND ASSESSMENT RESEARCH CENTRE
459A FULHAM ROAD
LONDON SW10 0QX

Telephone 01-351 3577
Telex 915407
Cables ENVIROMOLE London SW10

Course information

Numbers

There are vacancies for 20 participants

Fee

The fee for the course is £350. This includes the cost of lectures, excursions and field trips and accommodation for 21 days.

Accommodation and meals

Course participants will be accommodated in individual study bedrooms in the University of Aberdeen (3 - 8 September) and in Chelsea College (9 - 23 September). Breakfast and dinner are included but participants will make their own arrangements for lunch.

Bursaries

A limited number of bursaries to cover the course fee will be available through MARC. Applications for these bursaries should be addressed to MARC. In addition to the bursaries offered by MARC, candidates may apply through their government departments to the Technical Co-operation and Training Programme for bursaries which may be available from the British Government or from a Commonwealth source of finance or similar funding..

Travel Scholarships

A limited number of travel scholarships to cover the return excursion fare to the United Kingdom will be available through MARC. In addition, it may be possible in certain cases to obtain a scholarship from the local British Council office. For further information, candidates should address enquiries through their government department to the nearest British Council office.

Additional field trips

In addition to the excursions and field trips scheduled within the three-week course, candidates will be given the opportunity to extend their stay by a further week to visit institutions of interest to them. The cost of these visits

will be in addition to the course fee and will vary according to each candidate's requirements. Candidates are asked to indicate their interest in this optional extra week when making application.

Applications

Applications to join the course should be made on the form provided with this brochure. Applications must be received in London by 1 July 1978 and should be made to the following address:

The Course Co-ordinator
Monitoring and Assessment Research Centre
The Octagon Building
459A Fulham Road
London SW10 0QX

General information

The *Monitoring and Assessment Research Centre* (MARC) was established at Chelsea College, University of London in 1975. It is sponsored by the United Nations Environment Programme (UNEP), The Rockefeller Foundation and receives scientific support from the Scientific Committee on Problems of the Environment (SCOPE).

The broad objective of MARC is to undertake the evaluation of major environmental problems, particularly those of global and regional concern. Much of the effort at present is aimed at making assessments of the long-term regional impacts of certain pollutants in order to evaluate possible future harm to man and to ecosystems from present practices and, in addition, to specify more precisely what monitoring programmes are needed to make better estimates of future harm. At the same time, parallel work is done on environmental monitoring data systems and on a compilation of current national monitoring and assessment activities.

MARC is staffed by 10 full-time scientists supplemented by a continuous supply of visiting scientists from around the world who spend some three to nine months at the Centre.

Project Appraisal for Development Control (PADC) is part of the University of Aberdeen and is sponsored by the United Kingdom government to conduct research on certain aspects of environmental planning. An important objective has been to develop a manual to help planners assess the environmental, social and economic impacts of major industrial proposals. This manual was issued as an interim consultative document and will be modified and extended in the light of its use by planners. In addition, research is being conducted on the role of impact assessment in forward planning.

Proficiency in English

Participants in the course must be proficient in English. They should be able to follow and take part in English conversation. This is essential if they are to derive maximum benefit from attendance.

Accommodation

The accommodation offered is for the duration of the course and extends from the date of arrival in Aberdeen (3 September) to the date the course terminates (23 September), both dates inclusive. MARC will assist in accommodation arrangements for candidates wishing to avail themselves of the optional extra week referred to above; otherwise, no provision is made for accommodation before or after the course. Participants wishing to extend their stay in the United Kingdom will do so at their own expense.

Travel arrangements

Participants who are granted travel scholarships from MARC should note that these will be arranged by pre-paid tickets issued on instructions from London. The ticket will be the return excursion fare with minimum/maximum time limits, direct between two points, and will not allow for stop-overs *en route*. Any arrangements which participants wish to make outside these conditions will be for their own account.

Duration of course

Participants will arrive in Aberdeen on 3 September and will leave London on 24 September. Further details will be given when the final programme is circulated to participants, not later than 7 August 1978.

Provision is made for an optional extra week (24 - 30 September) for candidates wishing to avail themselves of the opportunity to visit institutions or organizations of special interest to them.

Cancellation of course

MARC reserves the right to cancel the course, without notice and without indemnity, subject to the return of fees already paid.

Selection

MARC will be responsible for selecting participants in consultation with aid-giving organizations as appropriate. Participants will be notified of their selection by 14 July 1978. Selected participants must submit their confirmation in writing by 1 August 1978 together with the course fee, where appropriate.



Monitoring and Assessment Research Centre

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GENERAL INFORMATION

C.31

The Monitoring and Assessment Research Centre (MARC) was established at Chelsea College, University of London, in 1975.

For the initial contract period, which ends on 30 April 1978, a total of some 1.1 million dollars was allocated to the Centre by the United Nations Environment Programme (UNEP) via the Scientific Committee on Problems of the Environment (SCOPE), by the Rockefeller Foundation, by Chelsea College and, for a separate project, by the United Kingdom Department of the Environment.

The broad objective of the Centre is to undertake the evaluation of major environmental problems, particularly those of global and regional concern. Much of the effort at present is aimed at making assessments on the long-term regional impact of certain pollutants in order to evaluate possible future harm to man and to ecosystems from present practices and, in addition, to specify more precisely what monitoring programmes are needed to make better estimates of future harm. At the same time, parallel work is done on environmental monitoring data systems and on a compilation of current national monitoring and assessment activities.

The Centre is staffed by about eight full-time scientists but relies for much of the scientific assessment work on a continuous supply of visiting scientists from around the world who spend some three to six months at the Centre.

A management committee was established to formulate the general scope of the work programme of MARC, to appoint and advise the director and to act as a liaison with national and international organizations with responsibilities for environmental matters. The management committee is made up of representatives from UNEP, SCOPE, The Rockefeller Foundation, the United Kingdom Department of the Environment, The Royal Society and Chelsea College.

September 1977

BJOB/AIS/MH

MONITORING AND ASSESSMENT RESEARCH CENTRE

WORK PROGRAMME

1 MAY 1978 TO 30 APRIL 1981

Monitoring and Assessment Research Centre
The Octagon Building
459A Fulham Road
London SW10 0QX

MONITORING AND ASSESSMENT RESEARCH CENTRE

WORK PROGRAMME FOR THE PERIOD 1 MAY 1978 TO 30 APRIL 1981

GENERAL OBJECTIVES OF THE PROGRAMME

The broad objectives of the programme are to increase knowledge about the movement and effects of pollutants in the environment, to such a degree that it will be possible to predict present and future harm resulting from given pollutant releases. The MARC programme will therefore develop environmental models of pollutant transport, from source to sink, and in addition will seek to determine the strength of the resulting effects on target organisms and ecosystems. Where present data, both on environmental levels and on effects, are found to be deficient, the gaps in our knowledge that are identified will be used to design future monitoring programmes.

In this way MARC will fulfil an existing need and will provide the scientific community as well as national and intergovernmental agencies with methods of predicting the long-term impact of pollutants upon the environment, as well as some selected assessments based upon these methods. In particular, it will continue to make an important contribution to the assessment programme of UNEP (Earthwatch).

BROAD PLAN OF ACTION TO REALIZE THE OBJECTIVES

The advisory committee for MARC met in London on 15 July 1977 and agreed upon some general points regarding the work programme for the three-year period, 1978 - 1981:- In view of the rather limited resources of MARC, the programme should be confined to a small number of topics in the assessment area and during this three-year period the emphasis should be on pollutants. MARC should attempt to recruit a few good scientists to lead and co-ordinate the work within each area throughout the contract period and thus ensure continuity between the efforts of visiting scientists.

It is planned that the above objectives will be achieved by means of a work programme containing three main work areas. Each work area would require the presence at MARC of a full-time senior scientific leader who would work in the area concerned and who would act as a link between visiting scientists to ensure that their effort contributed to the objectives of the particular programme area.

The first work area is concerned with the development and use of environmental transport models that will enable the total exposures of important target receptors to be estimated, both at the present time and also in the future, assuming present levels of industrial emissions.

This will build upon work already carried out at MARC during the past two years under themes three and four of the original work programme. 1/

The second area of work concerns evaluation of the effects due to the exposure of certain targets to particular pollutants. Dose-effect relationships will be determined for a selected number of pollutants using information presently available. Assessments will be made both for cases where the target receptor is man and where it is some ecological resource such as soil. Consultations will be made with WHO and FAO to ensure that the work undertaken at MARC is complementary.

The third major area of work involves the compilation and critical review of existing monitoring and assessment systems in selected countries. This study will concentrate on those areas of existing systems that generate and assess data useful as inputs for making assessments at MARC within the first two work areas.

In addition to the above work areas, MARC will continue to provide outlines and curricula for training programmes and in certain cases will organize training courses. It will draw upon experience gained in the first two years of operation and call upon experts present at the Centre.

MAJOR PROGRAMME OUTPUTS DURING THE THREE-YEAR CONTRACT PERIOD

The output from the first work area will be a series of reports that will elucidate methods and provide estimates of the exposure to man and other biota from a selected number of pollutants, resulting from human activities. Using appropriate models that have been subjected to validation, both present and future exposures will be predicted. In those cases where present monitoring data are insufficient to determine model parameters and for verifying models, monitoring programmes that would provide these data will be specified.

The output from the second work area will be a series of reports which assess the dose-effect relationship for a selected group of pollutants. The group of pollutants would essentially be the same as those studied in the first work area. Again, where present data are insufficient for this purpose, monitoring and/or research programmes will be proposed.

By the end of the three-year contract period it is planned to have completed and published reviews of the monitoring and assessment activities of three or four countries. This will be of use to those at MARC and elsewhere engaged in gathering data for assessments in the first two work areas. Thus, where existing data are deficient, these

1/ In the original work programme, theme three was 'the development of the dose-commitment concept for the analysis of environmental problems'. The fourth work theme was 'time perspectives of environmental change'.

reports will pin-point what organizations, by modifying their current programmes, could easily provide the necessary monitoring and research information. In addition, such assessments would be useful for UNEP and as an input to training programmes initiated at MARC.

OTHER GENERAL POINTS ON THE PROGRAMME

A number of other topics, in response to specific needs which may periodically arise, would also be addressed during the contract period. These would in general be of a short-term nature. Some such proposals are included in the description of the first and third work areas. The work programme will be kept sufficiently flexible to enable some studies to be undertaken on specific problems that may be requested by the sponsors, including UNEP.

No laboratory facilities will be provided at MARC but, where relevant, important measurement programmes will be suggested and an attempt will be made to stimulate such activity at existing laboratories.

MARC will maintain communication with national SCOPE committees, ICSU unions and the various National Academies of Science, particularly when trying to identify expert personnel, environmental information, new developments in analysis and existing monitoring data. In appropriate cases, when a notable expert is visiting MARC to report on an important issue, national committees and national academies may be invited to send experts to take part in a workshop on that topic and, where relevant, scientists from developing countries would also be invited to attend. A close liaison will also be made with other international institutes, such as IIASA, engaged in related work. An example of possible collaboration is that proposed by the Czechoslovakian national committee which has offered to host a workshop on a designated monitoring problem in 1979.

DETAILED DESCRIPTION OF THE WORK PROGRAMME

1. The assessment of environmental pollution by using environmental transport models to estimate exposures and exposure commitments

(a) Exposure commitment assessments

Introduction

During the period 1975-1977, considerable progress has been made at MARC in applying the so-called dose-commitment concept to the transport of pollutants through various environmental pathways. A theoretical basis has been developed to enable long-term human exposures to be estimated and several models to account for the regional atmospheric transport of pollutants, up to a thousand kilometres, have been constructed. The method has been applied to the assessment of human exposure from lead, cadmium, zinc and mercury. Data have also been assembled for vanadium, selenium, DDT and the PCBs and assessments using this model approach will be published by the end of April 1978.

A workshop was held in London in July 1977 to review this work. The workshop noted the importance of this approach as a method of assessing the potential harm to man and his resources from pollution and made a number of recommendations for future work. In proposing the following programme, we have taken note of these recommendations.

In conjunction with the work programme outlined below, one of the most pressing needs is to review and evaluate what is known about dose-effect relationships, both to man and other biota, and to ecosystems as a whole, and how these can be quantified for use in predicting harm from a given exposure commitment. This will in general require experts trained in different fields from those concerned with the assessment of exposures. This work forms the subject matter of the second work area - "evaluation of effects" - outlined in section 2.

Work Programme

It is expected that assessments, using the dose-commitment model, for all pollutants listed in the first paragraph above will be published before the beginning of the 1978-1981 period. Since these assessments are being made with a somewhat deficient data base, it is proposed that during the 1978-1981 period data will continue to be collected from the literature, and where necessary, updated evaluations of exposure commitments will be made for selected pollutants. SCOPE National Committees and other national agencies will be approached in order to identify existing data and parallel investigations being undertaken elsewhere.

Work carried out so far indicates that the present data base is in some places inadequate for the purpose of predicting future human exposure on a regional and global scale. In addition, present monitoring programmes do not give sufficient information to validate existing atmospheric transport models. By the end of 1978, a report will be produced specifying the data and methods required for this type of assessment and what types of monitoring programmes could generate this information.

The dose-commitment methodology will be extended to deal with synergisms between different pollutants and to incorporate weighting factors to account for different population groups and/or critical groups. Further submodelling will be carried out, particularly concerning ocean transport and the oceanic food chain. Case studies will be undertaken, in which parameters will be varied, to assess the sensitivity of the exposure commitment prediction to inaccuracies in the data base. These will take account of the joint USSR-USA simulation modelling project. An inquiry will be made as to whether or not the proposed study could be done in collaboration with IIASA. Another study will be carried out for a case where the detrimental effect is on some resource - for example, a reduced yield of an important crop. Initial reports on all these topics should be produced before the end of the contract period.

(b) Time perspectives of environmental change

Introduction

For certain environmental processes, the picture obtained from current monitoring activities may be misleading, particularly when substances are undergoing cycles over a long time scale. Past levels of environmental pollutants can often be inferred by determining their concentrations profile in some suitable substrate. Some reviews of the current literature have already been undertaken or are in progress and will have been published by the beginning of the second contract period. This material concerns measurements made in the ice cores, ocean and lake sediment cores, tree rings, etc. Some aspects of this work will need further study, in particular, those needs exposed during analysis of pollutant transport via the exposure commitment model.

Work Programme

One of the outputs from the first phase of this work already completed is a report giving a comparison of the strengths and weaknesses of different methods used in the past. On the basis of this, a report will be produced outlining desirable measurement programmes for the future. The target date is April 1979. These programmes would be aimed at establishing more precisely past environmental levels of certain pollutants; establishing their pre-industrial flux rates; and, in some cases, establishing critical parameter values for use in the exposure-commitment model. An example of such a parameter would be the mean effective residence time of heavy metal in certain environmental compartments.

With the co-operation of national agencies and international scientific unions, information will be collected on the location and character of existing stored samples, suitable for making retrospective studies of pollution contamination in the recent past. Such samples include soil profile cores, sediment cores and ice cores. The need for establishing a network of sample store banks, for use in future investigations, will be examined and, if it is felt there is a need, a detailed specification for sample collection and storage will be written. During the contract period an attempt will be made, by calling upon the aid of national agencies and the various scientific unions, to identify a few existing long-run sets of stored samples in one or two media and, if suitable, to help instigate a programme to measure the concentrations of important pollutants.

(c) Units and quantities used in environmental assessment

Any new methodology introduced to assess the state of the environment and its changes may require a new terminology, together with new quantities and units. The question of the need for some international committee to deal with this problem was raised at the July workshop on the dose-commitment model. It is proposed that a report addressed to this question be produced by MARC (in consultation with appropriate scientific unions) and if this indicated a sufficient need, a small workshop would be held to recommend appropriate further action at the international level. The details of this study would depend upon progress of studies under (a) above and would be carried out in the second half of 1979.

2. Evaluation of effects, particularly for low level chronic exposure

Introduction

Although assessment of large-scale chronic pollution situations by use of the exposure-commitment and other models will in general result in reasonable predictions of future exposures to various biota including man, some knowledge of the exposure-harm relationship is needed in order to assess future and total environmental harm, due to continuing pollution practices. In some cases the harm will be a specific effect on one species - for example, man - while in others a whole ecosystem will be threatened, or other indirect effects such as climate change may occur.

For some substances, the potential harm occurs near the source and is fairly obvious, whereas in other cases potential harm can only be gleaned after the movement of the substance through environmental pathways is fully understood, e.g. the effect of increased atmospheric carbon dioxide levels on climate. In the past, attention has in general been directed to those cases where the dose-effect response was fairly obvious, and where the answer could be easily obtained. There are a number of other situations for which the available data have not received sufficient scrutiny, particularly where effects take place over a long time period or where there is a considerable time lapse before effects occur. This is a very broad topic, with an extensive literature, and MARC will therefore aim to assess dose-effect information on a selected group of pollutants. MARC will draw upon the experience of those who have been involved in the ecotoxicological programme of SCOPE and will also consult with WHO and FAO to ensure that there is no duplication. In general, the aims of the MARC assessments will be different from such programmes: they will attempt to provide information in such a form that it can be used in conjunction with the dose-commitment model.

Work Programme

In order to make total assessments of future harm, using the dose-commitment model particularly for chronic exposure, presently available information about the dose-effect relationship will be reviewed for a limited number of pollutants.

One part of this study will be concerned directly with the so-called dose-effect relationship; that is, specific effects on man due to exposure to a particular pollutant. A review of present knowledge about dose-effect relationships for certain heavy metals, organochlorines and other pesticides, will be undertaken and the first review should be completed by the end of 1978. An attempt will be made to determine what is known about the effects of chronic, low dose rate exposure and whether the relationship is stochastic in nature; e.g. are there carcinogenetic or mutagenetic effects; whether it is linear; and whether there is a threshold. Important gaps in our knowledge will be noted. Reviews for a number of important pollutants should be completed by April 1981.

When we consider more complicated ecosystems - soils, for example, and possibly certain aquatic ecosystems - the initial effects of a pollutant stress are often difficult to interpret. For example, a certain pollutant may reduce the yield of some crops and increase the yield of others, and in other cases no overt effect on yield will initially be observed. Moreover, there are many different types of soil, each of which may react somewhat differently to a pollutant stress. The pollutant stress may have an effect upon the biological health of the soil itself.

One way to determine such overall effects is by studying an intact system including selected elements of flora and fauna and noting changes in those processes of primary ecological importance e.g. overall energy and nutrient flux rates. Although this approach is still in its infancy, some work has been done on soil and aquatic model ecosystems or microcosms. The MARC study will make use of methodological suggestions in the SCOPE ecotoxicology project and will review what data are currently available on the effects of pollutant stress, particularly on soil ecosystems, and priorities for future work will be noted. If the necessary experts can be recruited this could be completed by April 1979.

Another part of this work area will be concerned with a survey of environmentally sensitive species and environmental indicator organisms, again in relation to the more common pollutants. This would involve a literature review to establish what flora and fauna, particularly for terrestrial and aquatic ecosystems, are sensitive to selected pollutants and which of these would act in some way as a surrogate for man; for example, the effects of air pollution on lichens in relation to effects on the human lung. Some attempt will be made to review the effects of pollution on productivity, particularly of arable lands and forests. This is a large field and we will be very selective on what topics are studied, and the ones chosen would to some extent depend upon what experts can be recruited, and what help can be obtained from national academies and scientific unions.

An eventual extension of this work would involve assessments of the relative risk or harm caused by the movement of substances along different environmental pathways. In some cases the pathways may be complicated and the use of an exposure commitment or other model may be needed to quantify the alternative routes. However, there are other instances where the movements are more easily understood and where different practices may give rise to very different risks or harm. Any output on this topic would depend very much upon what progress is made in the first work area and upon progress made in the topics of work area 2 given above.

3. Summary of monitoring programmes

- (a) Compilation and review of monitoring and assessment activities in selected countries

Introduction

Earthwatch is to be developed as an operational framework to guide and co-ordinate research, monitoring, information exchange and evaluation by governmental, intergovernmental and non-governmental organizations.

Within the Earthwatch research activities, one of the three goals is concerned with "the evaluation mechanisms, procedures and specific steps required to assess the state of the environment and the changes taking place in it". ^{1/}

In various countries, environmental monitoring and evaluation systems have often evolved on an ad hoc basis as needs arose, and as a result often differ markedly from each other. Monitoring is undertaken at local, regional and national levels, for a variety of purposes, and this often generates separate, unco-ordinated data bases, only some of which are utilized in the assessment of environmental problems.

Work Programme

This project will be concerned with reviewing information on monitoring and assessment activities in a selected number of countries. The review will concentrate on the following points:

- (i) past, ongoing and planned monitoring activities, their purposes, and the allocation of resources for different monitoring programmes;
- (ii) the types and quality of data bases generated by these monitoring programmes;
- (iii) the flow of monitoring data and, where relevant, the procedures used for assessment;
- (iv) the allocation of responsibilities for research, monitoring network design, measurement, quality control, information exchange, evaluation and review;
- (v) the legal, economic and technical framework within which monitoring and assessment activities take place will be noted.

Where possible, MARC will rely upon national studies of these aspects of monitoring and will in any case call upon IRS where necessary.

The level of detail entered into for each case or sector will be a matter of judgement. For example, it is anticipated that routine surveillance or enforcement monitoring programmes will receive less attention than speculative or research monitoring, particularly where the latter generates data of possible regional or global significance. An attempt will be made to identify specially expert laboratories or individuals, and organizations holding significant sets of important monitoring data. The initial target will be to complete reviews for three or four countries by April 1981.

In addition to being of use for MARC's assessment work and for UNEP's Earthwatch and environmental management activities, this continuing review should be of value to developing countries currently in the process of establishing their monitoring and assessment systems.

^{1/} UNEP GC/90

(b) Proposal for a speculative monitoring system

Introduction

Today there is an ever-increasing variety and quantity of chemical substances being produced, either for consumption by industry or by the general population or as intermediate products in various stages of chemical synthesis. As a result, an increasing number of degradation products are finding their way into the environment. One problem is to know at an early stage just what is getting into the environment so that there remains sufficient time to take remedial action.

In the past, the significant build-up of a chemical in the atmosphere or elsewhere has often been detected by scientists engaged in a specific research programme. In other cases, attention is drawn to a chemical pollutant when some critical release occurs, which harms or threatens to harm some of the local population. Although keeping tabs on the movement of potentially harmful substances through society will help to reduce potential risks, additional surveillance is needed.

Work Programme

One way to provide additional advance warning would be to establish, at a few laboratories, a small group of scientists who would undertake to identify and measure a whole range of chemical substances in the atmosphere. Air would be sampled regularly at a few stations; perhaps only one or two stations would be necessary. It would then be analysed for the maximum number of chemical substances which can be identified, using the best and most sensitive techniques available. Such a project would not be regarded as a routine monitoring programme but would employ first-rate scientists, perhaps from some national laboratory, capable of developing and using extremely sensitive measurement techniques. It could also involve the establishment of data store banks, as noted in the work area 1 (b) above.

One can think of such stations as playing a watch-dog rôle by giving early warning on the appearance of new chemicals in the atmosphere. Important findings could be followed up by more extensive monitoring and some attempt to establish sources and sinks.

The rôle of MARC will be to establish the feasibility and usefulness of such a programme or to suggest alternative methods of attacking this problem. Working scientists and laboratory personnel will be consulted, and if considered fruitful, a small workshop will be convened by the end of 1979.

4. Training Activities

Introduction

The MARC programme ending April 1978 will have

- (i) identified some major areas of need in environmental assessment and management training, particularly for developing countries;

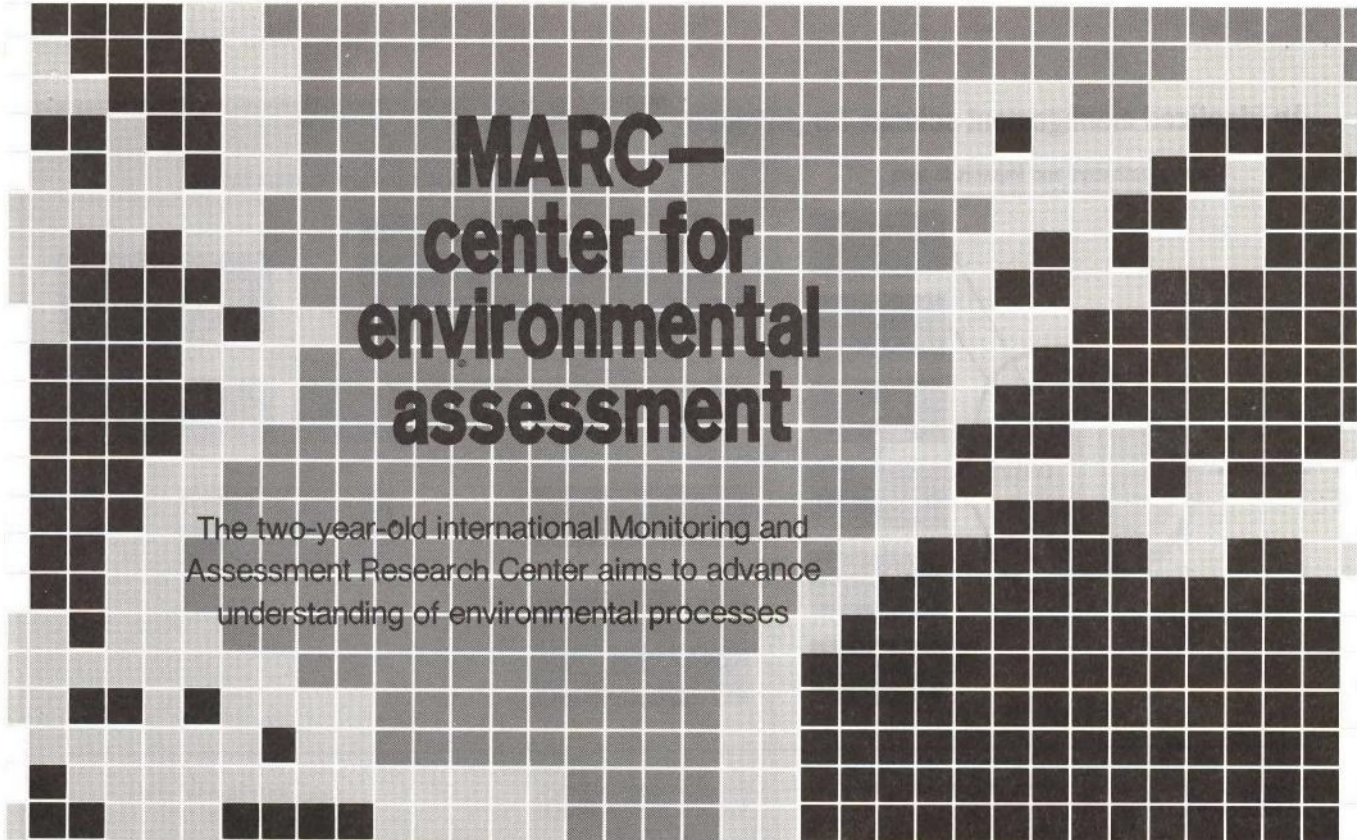
- (ii) prepared an initial review of environmental assessment and management arrangements in a number of African and European countries;
- (iii) identified the principal organizations and individuals in the above regions with specific interest in, or need for, training;
- (iv) helped fund, design, organize and evaluate a course on "Environmental Pollution Monitoring and Control". This course was held in the spring of 1977 in association with Chelsea College, Tottenham College of Technology and The Roehampton Institute of Higher Education.

The course was very well received by the participants drawn from 10 countries in Africa and Asia, many of whom are or will be instrumental in setting up ventures along these lines in their home countries. A thorough evaluation of the course and the practicability of its transfer to developing countries has been carried out.

Work Programme

On this basis, MARC proposes to carry out two functions during the 1978-1981 period:

- (i) By identifying training needs and using the data and information assessed at the Centre, together with the experts present, it is planned to develop curricula for training courses to be offered at Chelsea College and/or other university colleges in London. These would be offered for senior operational scientists and/or environmental managers from developing countries.
- (ii) In addition MARC will seek to identify unmet training needs with particular reference to regional courses in developing countries. Where appropriate, MARC will help to provide outlines and develop courses in conjunction with organizations such as UNESCO, UNEP and SCOPE.



MARC— center for environmental assessment

The two-year-old international Monitoring and Assessment Research Center aims to advance understanding of environmental processes

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During the 1960's, environmental concerns made the headlines with the publication of Rachel Carson's **Silent Spring**. Forecasts of deep uncertainty about the future for mankind appeared in **Limits to Growth** (Meadows, Additional reading), which was read by millions of people. The wide publicity following publication of this book undoubtedly stimulated governments and the international scientific community to turn their attention to the protection of the environment.

Following this period of anxiety came the present calmer and more thoughtful approach toward the problems of the environment; a major contributory factor to this has been the creation of the U.N. Environment Program (UNEP), as well as the involvement of the U.N. specialized agencies and nongovernmental organizations such as the international Council of Scientific Unions (ICSU) and its Scientific Committee on Problems of the Environment (SCOPE).

It is now recognized that well-designed, long-term research programs are required to increase our understanding of environmental processes and the way these may be adversely affected by certain activities. This understanding, by necessity long in coming, is a prerequisite for effective environmental management. In the meantime, the potentially harmful effects of man's activities must be closely watched and limited in the most prudent way possible, albeit with incomplete understanding. Thus, the monitoring of the environment has two broad functions:

- to produce data that are useful in advancing the understanding of ecosystems and their dynamics,
- to produce sufficient scientific data and information on pressing contemporary problems as are required by policy makers to assess environmental damage and contain it within generally acceptable bounds.

Environmental problems are of different magnitudes and occur on different geographical and time scales. At the global and regional levels, both UNEP and the U.N. agencies have an active

role in monitoring. The work of the agencies is coordinated through UNEP's Global Environmental Monitoring System (GEMS) Program Activity Center (see *ES&T*, 1976, p 230).

The article by Munn and Cain in this issue outlines the objectives and activities of SCOPE, and shows its connections with ICSU and with the U.N. family. One of the major program areas of SCOPE is environmental monitoring and assessment, and the focal point for this activity is the Monitoring and Assessment Research Center (MARC) at Chelsea College, London. MARC is in fact a major link between UNEP monitoring activities and SCOPE and thus, in a wider context, between the global monitoring systems being built upon the work of all the U.N. agencies, coordinated by UNEP/GEMS, and the relevant scientific work of ICSU unions and committees, coordinated by SCOPE.

The objective of MARC is to consolidate and advance the understanding of environmental processes and thereby aid in the design of monitoring systems for environmental management and research. The MARC program provides scientific support to the ongoing program of UNEP in general and of Earthwatch/GEMS in particular.

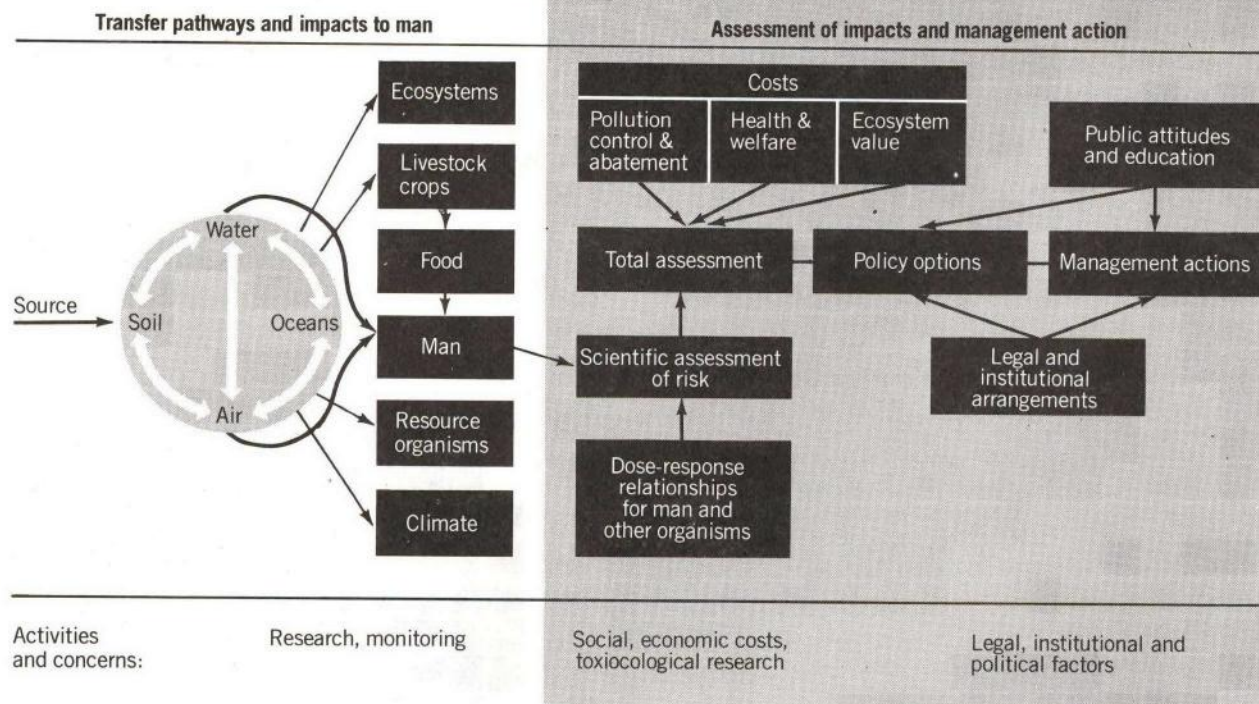
Monitoring, its definition and aims

Monitoring has been defined (SCOPE, 1977) as the systematic collection for a predetermined purpose of intercomparable measurements or observations of any environmental variable or attribute. These can be used to assess existing and past states and to predict likely future trends in those environmental features of greatest significance for human survival and well-being.

Monitoring can involve the measurement of levels of significant chemical substances in various compartments of the environment; physical, chemical or biological attributes of the compartments or media; the frequency or magnitude of effects on selected targets in the environment.

One schematic way of describing the environmental management process is to divide it into a number of interlinked

An idealized management scheme for protecting human health



functional phases, for example, problem recognition, monitoring, assessment and policy.

Problem recognition. An environmental hazard or problem may be recognized following scientific research. Research-related monitoring can often be important in this phase.

Monitoring. Following problem recognition, a survey or monitoring program may be established to provide relevant data on the overall scale of the problem in space and time or, ideally, to predict its likely onset in the future.

Assessment. This activity aims to scrutinize and evaluate the monitoring data in conjunction with other relevant knowledge such as toxicological or epidemiological information, in order to arrive at an estimation of potential risk to the affected population or resource.

Policy. Here the management objectives are formulated and the various policy options reviewed in the light of the risk estimates. However, before arriving at a decision for executive action, social, political and economic factors may be taken into account.

This sequence is not always linear but contains many feedbacks between the phases. As an example, a monitoring system may generate data resulting in a policy decision, for example, to establish legal standards of emission. The system may subsequently be modified to ensure compliance and that the standards are having the desired effect.

A schematic representation of environmental management and research activities and how these are interlinked in an idealized management system is shown above. This scheme is relevant to the protection of human health from direct threats. Similar schemes can be drawn for other goals, such as conservation of ecosystems, and protection of the oceans.

MARC: what's it all about?

The origins of MARC date back to 1970 with the establishment of the SCOPE Monitoring Commission. This was set up to respond to a request from Maurice Strong, then the Secretary-General of the U.N. Conference on the Human Environment, to "prepare a report recommending on the design, parameters and technical organization needed for a coherent global monitoring system." This report, a background document at the Stockholm Conference, subsequently appeared as SCOPE 1—"Global

Environmental Monitoring" (SCOPE, 1971).

Following the conference, the SCOPE Commission, with G. T. Goodman and R. E. Munn as co-chairmen, developed the idea of an organization to undertake assessments of the state-of-the-environment and to define important knowledge gaps that must be bridged in order to improve predictive capability. It was felt that this could best be done by groups of scientists working and collaborating at one location. Such a center would be international in character, responding to regional and global interests as well as to national needs and priorities.

UNEP expressed a willingness to provide some of the funding required, and in the autumn of 1974 two international workshops met to discuss both the work program and the operation of the proposed center. Four distinct but interrelated work themes were eventually selected.

The Center became operational in August 1975 and the full-time MARC/SCOPE staff consists of the director, scientific program officer, two research assistants and secretarial staff. UNEP appointed a senior scientific liaison officer to the Center, Dr. B. J. O'Brien from New Zealand, for a period of two years from August 1975. On 1 October 1977 Dr. O'Brien was appointed the new director of MARC. Professor Goodman, the first director, is now director of the Institute for Energy and Human Ecology (Beijer Institute) in Stockholm, Sweden.

A number of visiting professional staff, averaging about four at any one time, work at MARC for periods ranging between two and nine months. They are usually senior scientists on leave of absence or sabbatical from their parent institutions.

MARC was originally funded until April 1978, with a total of some \$1.1 million (U.S.) for this first three-year period. The financial sponsors are UNEP, through SCOPE, The Rockefeller Foundation and Chelsea College. The U.K. Department of the Environment is funding a separate but parallel project at MARC concerned with environmental monitoring data systems in the U.K. This latter project is conducted by four scientists at the Center, appointed until April 1978.

Original work program

The international workshops adopted certain criteria for selection of the MARC program. The program components or themes should, it was suggested:

- contribute to scientific understanding of environmental states or processes
- be of global or regional importance or broad international significance
- be relevant to and support UNEP, especially the early phase of GEMS
- facilitate the design, coordination, harmonization and analysis of monitoring activities by providing strategic guidelines
- be wider than the interests of a single ICSU union or committee
- be important as a demonstration project for training purposes.

On this basis, four themes were selected. Theme 1, Monitoring Data Characterization, was designed to maximize the mutually supportive value of overlapping data bases. The tendency has generally been to ignore the often highly interactive nature of apparently separate environmental problems and, therefore, to generate the data base for each problem or need in isolation. As a first step, MARC was asked to develop inventories of information needs in very wide environmental settings, which would help to establish agreed upon formats for sampling, collecting, reporting, analyzing and synthesizing environmental monitoring data. It was felt that this would help users to report and evaluate monitoring data in an agreed manner, thus avoiding sectoral misunderstanding or confusion.

Theme 2, Regional Monitoring Needs, was particularly addressed to the environmental problems of developing countries and the way in which these should be considered in global or regional monitoring systems. Proper recognition of such problems and needs and particularly of the social, economic and political setting in which they exist, would, it was considered, help to establish a truly global monitoring system.

The purpose of Theme 3 was to elucidate the transport of long-lived pollutants, such as lead, mercury, cadmium and DDT through the environment by developing empirical models.

One very relevant modeling technique available is that developed by U.N. Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) for assessing the effects of contamination from radionuclide releases. This is expressed in terms of doses to populations from a given event causing the release; for example, weapons testing. Using this procedure, known as the dose commitment concept, it is possible to estimate the harmful effects of the radioactivity to a population.

The applicability of this method to non-radioactive pollutants such as those mentioned above is being studied at MARC. The ultimate objective of this theme is to arrive at a more accurate estimate of present and future environmental harm from pollution emissions.

Theme 4, Time Perspectives of Environmental Change, was designed to obtain data, particularly on pollutant levels, and how they have changed with time. This would help to establish the "environmental norm," its natural variability, and significant departures from the norm. Such an approach would thus lead to the specification of baseline states and hence to an agreed definition of what constitutes abnormal (degraded or polluted) environmental states or trends.

Review of initial work program

The MARC Program was reviewed in September 1976 by an international scientific group including representatives from SCOPE and UNEP. The aims of this workshop were to evaluate progress in the program, suggest guidelines for work during the remainder of the present contract period and discuss possible long-term programs for MARC.

The evaluation workshop endorsed the approach adopted during the initial period and proposed that the program be continued along the same lines. However, one important modification was suggested. It was recognized that Theme 1, as originally conceived, was too broad. It was proposed that work here could most usefully focus on the development of programs related to current Earthwatch goals: MARC should undertake a

Suggestions for making MARC's programs more relevant to UNEP

- *The MARC research program focuses on global and regional pollution assessments and aims to provide crucial information for quantification of present harm and commitment to future harm from pollution practices.*
- *MARC will continue to develop and use environmental transport models to estimate present and future exposures of humans and sensitive ecosystems to important pollutants.*
- *MARC will review information on the effects of exposure to these pollutants. By establishing dose-effect relationships, assessments will be made for cases where the receptor is man or some sensitive ecological resource.*
- *Parallel with this research effort, MARC will compile and review information and data on current monitoring and assessment activities in selected countries, with emphasis on programs that generate data of regional and global significance.*
- *MARC will develop and, in some cases, channel funds into training activities, particularly for developing country personnel. Such courses will be aimed at high-level decision-makers and will seek to help examine some of the possible environmental impacts of alternative development processes.*

detailed review of existing knowledge in relation to some of these goals, select critical areas and define specific knowledge gaps. The scientific community should be widely involved in this review, particularly through ICSU/SCOPE channels.

The first 15 months

The work during the first 15 months had shown that there were considerable differences between the themes in terms of range, scope and difficulty, although this does not necessarily reflect their relative usefulness.

In the first 15 months about 20 visiting scientists spent some time working at the Center. Each has produced at least one report on his research at MARC. In addition, four projects were contracted to outside institutions, with particularly useful expertise or data.

At an early stage in the program it was recognized that any generalized approach to Theme 1 would be most appropriately based upon progress in the other three themes and in the U.K. DOE-sponsored program, which is closely related to this theme. Therefore, a number of specific projects have been carried under the general umbrella of this program.

One such project (see Additional reading MARC, 1977a) was concerned with the development of a checklist for evaluating the potential hazards from man-made chemicals being released into the environment. There are so many chemicals currently being used or being produced that full toxicological testing of every one is all but impossible. Instead, existing knowledge may be used to screen chemicals as a first approximation to obtaining potential environmental risk. The MARC scheme contains criteria such as toxicity (where known), biogeochemistry, production and use patterns, by means of which some idea of the magnitude and probability of the hazard may be gained. Each criterion is divided into measurable components; for example, for biogeochemistry: transport parameters, concentrations, stability characteristics. Most of these parameters are planned to be included in UNEP's International Register for Potentially Toxic Chemicals (IRPTC). It is hoped that this scheme will support the eventual development of an evaluation capacity for IRPTC, as well as providing a single scientific base that can be used by the many countries currently attempting to regulate the manufacture, use and discharge of new chemicals.

In addition to such screening procedures, it is clearly prudent to continually review and update our knowledge of a whole range of chemicals that are known to present potential hazards, or may be representative of biochemically active and persistent substances.

One element that is increasingly being scrutinized is vanadium, whose release into the atmosphere from the combustion of fossil fuels is likely to increase for some time. There is recent evidence that vanadium in trace amounts is a powerful inhibitor of soil enzyme activity, thus reducing the mineralization processes that are involved in nitrification and the release of plant nutrients. It may also be harmful to man and wildlife at trace concentrations. MARC has published a review of existing information on vanadium, its levels in various media, and its effects on man, flora and fauna. It is felt that such reviews can usefully be done for other substances.

Additional themes

Under Theme 2, the special environmental needs and problems of developing countries have been addressed. The work has been conducted at two levels:

- A general inventory and ranking of major environmental problems in several regions, particularly as perceived by scientists from the regions themselves. This is an ongoing program and, so far, MARC has received preliminary inputs from parts of West Africa, South America and southern Europe.
- Case studies of specific environmental problems and needs have also been done. Two of the most interesting are as follows:

In the developing world, environmental management must be kept highly cost-effective. One important factor must be the cost of gathering useful data. In this context, a report was commissioned by MARC (see Additional reading MARC, 1977a) in which the peasant farmer's knowledge of his environment, and the feasibility of utilizing this knowledge were examined. The case study was done in Nigeria where it was found that the subsistence farmer not only has useful knowledge of his local envi-

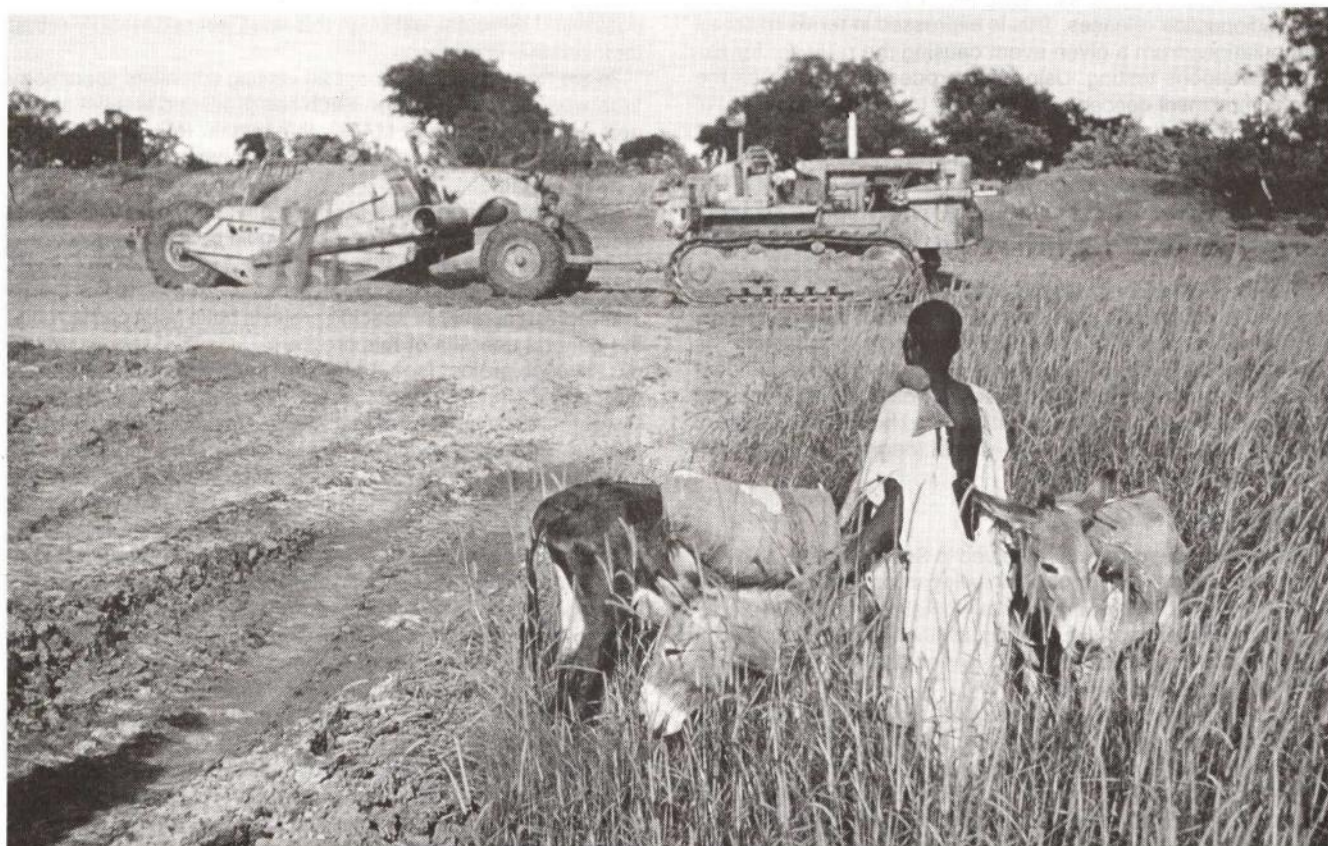
ronment but is often able to perceive subtle changes in it. It also appeared that it would be practicable to utilize this "grass roots" knowledge for environmental management at the local and national levels.

The second report on monitoring tropical forests does not propagate new concepts but gives a thorough review of the procedures and techniques available for the monitoring of these areas and points out gaps in our knowledge.

The work under Theme 3 has proceeded along two lines. First, a comprehensive review has been made of existing data on levels of pollutants (such as heavy metals and organochlorines) in the environment. These are required for the prediction of human exposure to pollution by using the dose commitment model. The second task has been to extend the applicability of the model, including some necessary conditions for its valid use, and to determine those areas in which it may prove most useful.

A number of reports have been prepared under Theme 3 that include: a descriptive and formal presentation of the concepts; preliminary application to the transport of mercury, cadmium and zinc as well as to the ozone depletion problem; and how the model may be used in the design of freshwater monitoring systems. Special aspects and problems have also been considered; for example, discharges from a point source, deposition rates from uniform area sources and how concentration-dependent pollutant-transfer coefficients may be accommodated.

Under Theme 4, a review was made of the ways in which biological materials such as sediments, ice cores or tree rings could provide information on past levels of heavy metals in the environment. An interrelated study reviewed the available data on the spatial distribution and time trends of mercury, cadmium, zinc and lead, and discussed difficulties in interpreting these data. In another project, the trends over the past 20 years in the ambient levels of 25 trace elements have been determined from measurements at a rural site in southern England. This monitoring site, operated by AERE Harwell, was originally established to measure ambient levels of radionuclides, but the well-preserved



Nigerian farmer. *His knowledge of local conditions can be used in environmental management*

measuring filters enabled analysis for non-radionuclides as well. The results of this analysis help to clarify whether a regional monitoring station with an extended program might demonstrate clear secular trends in the levels of airborne trace elements.

Summing up

MARC has now been operational for two years. During this period the strengths and weaknesses of the original structure have become apparent.

Perhaps the major problem has been in assuring the continuity of scientific input. This is primarily a consequence of the relatively fast turnover of temporary staff and the small number of "permanent" staff. In the present economic climate, many scientists find difficulty in obtaining leave of absence from their parent institutions for long periods of time. Moreover, they are often unable to time their visits so as to fit in best with the MARC program.

Nonetheless, MARC has been able to attract a number of internationally respected scientists with highly appropriate expertise who have made considerable impact during relatively short visits. The large number of scientists who have spent some time at the Center has already created a wide network is constantly expanding.

One major advantage of an institute such as MARC is its flexibility. Long-term research can be undertaken by a small core staff and via a well-planned program of visiting fellows; at the same time, short-term and specific projects, such as responses to outside requests and provision of direct scientific advice to international bodies such as the U.N. agencies, can be undertaken quickly.

What of the future? The authors believe that MARC's flexibility and proven ability to attract good scientists can continue to be utilized by UNEP, U.N. agencies and other national or international bodies, both for long-term research and for specific advice. MARC can usefully act as an ongoing, truly international forum for scientific examination of environmental problems that already exist or may arise in the future.

Additional reading

Jensen, C. E. Brown, D. W., Mirubito, J. A., Earthwatch, *Science*, **190**, 432 (1975).

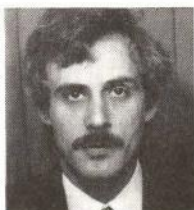
Meadows, D. H., Meadows, D. L. Randers, J., Behrens, W., *The Limits to Growth*, Potomac Associates, London, 1972.

Monitoring and Assessment Research Centre, *Suggestions for the Development of Hazard Evaluation Procedure for Potentially Toxic Chemicals*, MARC Report No. 3, London, 1976 (a).

Monitoring and Assessment Research Centre, *Vanadium in the Environment*, MARC Report No. 2, London, 1976 (b).

Monitoring and Assessment Research Centre, *The Relevance of the Peasant Farmer's Knowledge in the Monitoring of Agricultural Resources—A Nigerian case study*, MARC Report No. 4, London, 1977 (a).

Scientific Committee on Problems of the Environment, *Environmental Issues*, 1976, SCOPE Report 7, Paris, 1977.



Andrew I. Sors is scientific program officer at MARC. Dr. Sors is a materials scientist with some industrial experience, and, previous to his appointment at MARC, worked for the Environment Directorate of the European Common Market Commission.



Gordon T. Goodman is director of the International Institute for Energy and Human Ecology (The Beijer Institute) in Stockholm, Sweden. Prof. Goodman was director of MARC and professor of applied biology at London University until September 30, 1977.

Coordinated by LRE

5 - Env. + Health

IIED INTERNATIONAL INSTITUTE FOR ENVIRONMENT AND DEVELOPMENT

President: Barbara Ward (Baroness Jackson of Lodsworth, D.B.E.)

April 14, 1978

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Dr. James Lee, Director
Office of Environmental and Health Affairs
World Bank - Room E-1005
1818 H Street, N.W.
Washington, D.C. 20433

Dear Dr. Lee: 

On April 4 we sent you a copy of the draft final report of the IIED's assessment project team Banking on the Biosphere. We very much look forward to receiving your comments. Given the short time involved, I would ask that we receive your comments by May 15 rather than May 1. I hope that this extra time will lessen any difficulty caused by the earlier date.

Yours sincerely,



Robert E. Stein

RES/hh

1970 APR 19

TO: DIRECTOR, FBI
FROM: SAC, NEW YORK
SUBJECT: [illegible]
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Mr. Aklilu Habte, EDC

April 14, 1978

H. Reitze, Office of Environmental
and Health Affairs

Draft of UNEP Paper for Meeting of Inter-Agency Joint
Program on Environmental Education and Training

Following our telephone conversation of this afternoon, I am enclosing a copy of a portion of a document on Environmental Education and Training currently being prepared by the United Nations Environment Programme (UNEP). This document will be the basis for discussions at a forthcoming inter-agency meeting in Paris from 24 to 26 April, 1978. I would appreciate receiving your comments and/or suggestions at your earliest convenience.

cc: Dr. James A. Lee

JB
HR/ag

In the field of Health Education, WHO is promoting and providing assistance in the incorporation of health education into the training of all categories of health and health-related personnel, and the development of a core of specialists in health education. Vital elements of such help include: the development and strengthening of institutions involved in the training of health specialists, help in curriculum development and strengthening of the teaching of health education in all schools for health workers, and the utilization of field training for trials of health education on materials and methods that will be particularly useful in the development of primary health care services and the training of voluntary and village health workers. Furthermore, in line with the emphasis of the Sixth General Programme of work on the health problems of the developing and least developed countries, WHO will intensify its activities in this field and the following related areas: health education component of primary health care, health education aspects of basic health measures and health education in the promotion of family health.

In addition, WHO's health education unit has intensified its efforts to arouse public interest in environmental health. The Organization is also giving high priority in all regions to the strengthening of the environmental health capabilities with special emphasis on the exchange of information on the effects of health of conditions in the environment and on the strengthening of regional centres capable of undertaking and assisting in the identification of environmental health problems and the transfer of technology for rural water supply and sanitation in all regions. Moreover, WHO assists governments in the education and training of environmental health personnel including sanitary engineers and symposia and special courses.

WHO activities relevant to environmental education and training include: public health engineering courses, course on public health with emphasis on rural health, course on environmental pollution and air pollution, environmental health engineering courses, post-graduate training in environmental sciences, training course on Coastal Water pollution control (WHO/DANIDA), training courses in Water Quality Analysis and Management, training course in Environmental Planning, training of health inspectors, sanitarians, nurses and public health engineers, training centres for Water and Sewage works operators, sanitary engineering and municipal programming, study of the regional training needs on environmental health, study on Manpower requirements in Environmental Health, study on operation and maintenance of water treatment plants, study on planning and design of Waterworks, study on water sanitation, inspection and control, regional seminar on Solid Wastes Management and seminar on Environmental Health Manpower Development.

3.13 International Bank for Reconstruction and Development (IBRD)

The World Bank Group's involvement in environmental affairs started in earnest in 1970. Together with other international development agencies, the World Bank Group is presently using and developing improved detailed environmental considerations, criteria and standards,

levels, which should be taken into account during the appraisal stages of development projects.

All of the World Bank Group's projects are scrutinized and for appropriate environmental precautions and opportunities. All of the Bank's environmental activities are related and to individual projects.

Within the context of its economic development assistance, similar clauses for environmental education and training are incorporated into specific projects. In line with this, the Economic Development Institute of the World Bank Group has provided support for environmentally-oriented education and training activities as part of its overseas training programmes, and has produced teaching materials on environment and development.

✓ EDC

EDC

The following are some of the approved education projects for Bank and IDA assistance in fiscal 1976 and in 1977 which have included, where necessary individual environmental considerations:

Cameroon: This third education project was designed to assist the Government in the creation or expansion and improvement of agricultural, rural health, and technical education facilities (1976).

Morocco: Enhancement of Morocco's comprehensive strategy for rural education through the expansion and reorganization of the country's general, rural health, and agriculture extension education (1976).

Paraguay: Expansion of training programme of the National Vocational Training Service to meet the urgent needs of the economy for skilled and managerial workers. Accelerated training for rural youth, and in-plant training and management training have been emphasized (1976).

Tanzania: Provision of training for 1,500 managers of Ujamaa village through a Village Training Programme, the first comprehensive programme for in-service training in village development in the country (1976).

Yemen Arab Republic: Four new district training centres provide courses in literacy, basic occupational skills, and agriculture; in addition, women receive instruction in health, hygiene, nutrition, child care and domestic crafts (1976).

Bolivia: Assistance in finding cost effective ways of increasing access to primary education, in developing more appropriate curricula, and in designing a community education programme for the non-school-age population. Vocational training will also be expanded (1977).

Liberia: This third education project supports the country's manpower development efforts by providing assistance for industrial and vocational training, forestry training, manpower planning, educational architecture, and science and technology education at the secondary school level (1977).

Philippines. Strong national centres in forestry, animal science, and veterinary medicine will be established at the University of the Philippines at Los Baños, and the Visayas State College of Agriculture will be upgraded. In addition, a national system for in-service training of field extension workers and non-formal training of farmer leaders will be developed through the establishment of training centres for rural development (1977).

3.14 World Meteorological Organization (WMO)

In accordance with the decision of the Seventh World Meteorological Congress (WMO), activities in the field of education and training continued to receive high priority. As in the past, the main features of these activities consisted in preparation of training syllabi publication of training compendia of lecture notes, establishment of national and regional training centres, organization of regional and inter-regional training seminars/symposia, conferences and granting of fellowships.

The WMO "Guidelines for the Education and Training of Personnel in Meteorology and Operational Hydrology" contains syllabi and training programme for no fewer than 15 fields of meteorological applications. Based on these syllabi numerous training text books and compendia of lecture notes have been published by the Organization for the use of students and the instructors alike. Special attention has been paid to fields such as agrometeorology, climatology and operational hydrology. A catalogue of available training facilities in meteorology around the world has been published by WMO and kept continuously up to date. The WMO training seminars and symposia cover a wide range of fields of theoretical and applied nature. All these activities are co-ordinated by a special Panel of Expert established by the WMO Executive Committee.

WMO's environmental education and training programme gives special attention to the meteorological aspects of atmospheric marine pollution. In collaboration with UNEP and other UN agencies, during the recent years, the Organization has conducted a number of regional training courses on the measurement of atmospheric background pollution. In collaboration with its Members, WMO is also organizing similar courses for the benefit of the students from the developing countries.

In the context of the education and training activities in the field of the protection of the environment, the following specific events should be mentioned:

- (a) The organization of a world wide "Conference on Education and Training in Meteorological Aspects of Atmospheric Pollution and related Environmental Problems" (February 1977);

5 - Env + Health

Mr. Raymond Frost, EDI

April 13, 1978

H. Reitze, Office of Environmental
and Health Affairs

Draft of UNEP Paper for Meeting of Inter-Agency Joint
Program on Environmental Education and Training

Following our telephone conversation of this afternoon, I am enclosing a copy of a portion of a document on Environmental Education and Training currently being prepared by the United Nations Environment Programme (UNEP). This document will be the basis for discussions at a forthcoming inter-agency meeting in Paris from 24 to 26 April, 1978. I would appreciate receiving your comments and/or suggestions at your earliest convenience.

cc: Dr. James A. Lee


HR/ag

OFFICIAL FILE COPY

OEHA Files

April 13, 1978

H. Reitze, Office of Environmental
and Health Affairs
State of the Environment Report 1982--Meeting with
Professor Buzzati-Traverso

On Wednesday, March 22, Dr. James A. Lee and I met with Professor Buzzati-Traverso, at his request, to discuss the above-mentioned project, of which he is the coordinator.

Professor Buzzati-Traverso briefed Dr. Lee on the support being received for this project from various agencies. UNEP would be contributing approximately \$0.5 million; the Rockefeller Foundation and the Mellon Foundation each have agreed to an unspecified contribution; the Agnelli Foundation would also be providing some significant support; Fiat would be providing office space; and the Japanese government (?) would be contributing approximately \$0.5 million. The French government would be channeling funds through non-official channels.

According to Professor Buzzati-Traverso, the long-term objective is "to keep under review the world environment situation to insure that emerging problems of wide international significance receive appropriate and adequate consideration" (G.A. Resolution 2997; see attached project outline). The immediate objective of this project would be to prepare the first Quinquennial State of the Environment Report as required by UNEP's Governing Council Decision 47. These objectives can be said to be twofold: (a) to prepare an analytical and comprehensive State of the Environment Report governing the ten-year period since the Stockholm conference; and, (b) to prepare a popular version of the previous report directed to the public at large.

Specifically, he is requesting that the Bank: (1) provide information which may relate to the detection of changes in selected parameters of the world environment to date; (2) act as the project's fiscal agent; and, (3) provide direct financial support. He also inquired as to whether or not Bank financial support could be channeled through such regional centers as the Venezuelan Institute of Scientific Research (Instituto Venezolano de Investigaciones Cientificas--IVIC).


After some general discussion on these subjects Dr. Lee suggested that a formal and very specific request ought to be addressed by Professor Buzzati-Traverso himself or UNEP's Executive Director, Mr. M. Tolba, to the Bank's President or to the CPS Vice President on this particular matter. He said that if the Bank were to consider taking any specific role in this project, his preliminary feelings were that the Bank, under certain conditions, would favorably consider providing available information to be used for this purpose, as stated in (1) above; however, the Bank would need to carefully assess the appropriateness of undertaking any fiscalizing and/or funding role for a project of this nature, as stated in (2) and (3) above. He expressed serious

April 13, 1978


doubts as to the viability of Professor Buzzati-Traverso's suggestion of channeling funds through a third-party like the IVIC. Finally, he argued in favor of calling expert panels (sectoral workshops) which may enhance the overall credibility of the work being implemented.

Professor Buzzati-Traverso took note of Dr. Lee's observations and said he would begin preparations for a more formal request to the Bank as Dr. Lee suggested.

cc: Dr. James A. Lee
Messrs. R. Goodland
R. Overby
J. Tikhon

HR/ag

THE WORLD BANK

ROUTING SLIP		DATE: May 2, 1978	
NAME		ROOM NO.	
Dr. Lee			
<input type="checkbox"/>	APPROPRIATE DISPOSITION	<input type="checkbox"/>	NOTE AND RETURN
<input type="checkbox"/>	APPROVAL	<input type="checkbox"/>	NOTE AND SEND ON
<input type="checkbox"/>	CLEARANCE	<input checked="" type="checkbox"/>	PER OUR CONVERSATION
<input type="checkbox"/>	COMMENT	<input type="checkbox"/>	PER YOUR REQUEST
<input checked="" type="checkbox"/>	FOR ACTION	<input type="checkbox"/>	PREPARE REPLY
<input type="checkbox"/>	INFORMATION	<input type="checkbox"/>	RECOMMENDATION
<input type="checkbox"/>	INITIAL	<input type="checkbox"/>	SIGNATURE
<input type="checkbox"/>	NOTE AND FILE	<input type="checkbox"/>	URGENT
<p>REMARKS:</p> <p>I have already called their coordinator (Ms. Hellen Adwards) to inform them. They will send us copy of the agenda as soon as it is ready. They regret that you cannot join the ED's and Director's luncheon.</p>			
FROM: H. Reitze 		ROOM NO.:	EXTENSION: 76940

9:30

4/21/78

HR

Helen Edwards of IDA (634-8775)
called - they want to print the agenda.
Could you call her as soon as possible
to let her know who is going.

ON

~~Lee~~ _____

Nash _____

~~Overby~~ ✓ _____

Tixhon _____

Goodland _____

Brown _____

Golladay _____

Liese _____

Robinson _____

Jasazza _____

Ueber _____

Dement _____

(TDR) _____

~~Reitze~~ ✓ _____

~~Luke~~ _____

Who is going — ↑
I forget ?

Helen E. Edwards IDB
634-8775



INTER-AMERICAN DEVELOPMENT BANK
WASHINGTON, D.C. 20577

EXECUTIVE VICE PRESIDENT

April 12, 1978

CABLE ADDRESS
INTAMBANC

Dr. James A. Lee, Director
Office of Environmental and Health Affairs
International Bank for Reconstruction
and Development (IBRD)
1818 H Street, N.W.
Washington, D.C. 20433


Dear Dr. Lee:

I am pleased to confirm our invitation to your Office to participate in the upcoming Seminar on Environmental Management, sponsored by the Inter-American Development Bank. The Seminar will be held on Tuesday, May 9, 1978, in the Andres Bello Auditorium at Bank headquarters. We especially look forward to having your designated representative address the afternoon session of the Seminar, on "The Organizational Response to Environmental Issues in Development." This panel presentation will include also representatives from USAID, OAS, and the IDB.

We expect this Seminar to be an occasion for frank discussion of various environmental issues, particularly as they pertain to programs and projects undertaken by international development institutions. As the IDB develops its own policy approach to these issues, we welcome the continued opportunity to maintain a close collaboration with your Office and its work in this area.

The Seminar coordinators will be in direct contact regarding final details and arrangements of the meeting. In the interim, please accept our appreciation for your cooperation in this endeavor.

Sincerely yours,



Reuben Sternfeld

Allen Edwards.

express

issues

encl report

Board of Directors (or) City President
for the acceptance.

15-20 min.

20-25 people

statement received

intend city w. board / July.

Miss?

Gen. Analysis?

Comp-wise?

Geordie Weir / PD

K. Rogers / BAS / Sammie.

Alfred Sta. buy / UNCL

H. Bled 11/59

E. Hershfeld / San Mateo

Co de Tech Ambient.

End of week

± Panel Analysis

2-3 apr

5

[634-8775]

1230-2

April 12, 1978

Mr. Tim Symonds
1 Denning Road
London, S.W.3.
ENGLAND

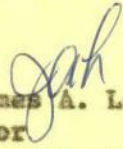
Dear Mr. Symonds:

Thank you for your letter of January 22, 1978, to Mr. McNamara, which has been forwarded to this office for reply.

I regret to inform you that Mr. McNamara will be unable to attend the symposium on desert revegetation scheduled for next May 15 in London. As you may know, this is a matter to which the Bank gives much attention. As a multilateral development finance institution, the World Bank finances priority projects in its member countries - a fact that frequently constrains other non-project endeavors. Currently, the Bank is concerned with several projects of direct assistance to drought-stricken Sahelian countries, while at the same time its agriculture development projects in these countries often include such desertification control measures as reafforestation, livestock and rangeland management, and related undertakings.

While I have no other suggestions to offer at this time, please let me wish you and your colleagues every success in this endeavor.

Sincerely,


Dr. James A. Lee
Director
Office of Environmental and
Health Affairs

cc: Mr. John Hemming,
Royal Geographical Society, London

Messrs. J.L. Maddux, IPA
M.M. Yudelman, AGR
H. Reitze, OEHA

JAL/HR:on

OFFICIAL FILE COPY



The 6th Technicon International Symposium on
Environmental Changes and Biological Response

Sextum Technicon Inter Gentes Symposium de
Ambientalis Mutationibus et Biologicis Responsis

July 7-9, 1978, International Convention Hall, Sasakawa Hall, Tokyo

April 11, 1978

Mr. James A. Lee
Environmental and Health Adviser
World Bank, Office of Environmental and Health Affairs
1818 H Street N.W.
Washington, D.C. 20433
U. S. A.

Dear Mr. Lee,

n/end
Enclosed please find some printed matters relating to
The 6th Technicon International Symposium for your reference.

n/alt
Also we attached herewith a tentative Symposium Schedule
as of April 10, which is subject to further change.

Appreciating your cooperation and support for the
Symposium,

M. Narita
Preparatory Committee for The 6th
Technicon International Symposium

INCOMING
APR 11 1978
TECHJ
RECEIVED

Preparatory Committee for The 6th Technicon International Symposium

Hazama Building, 5-8 Kita-Aoyama 2-chome, Minato-ku, Tokyo 107 Japan

Telephone: (03)-405-7311 Telex: 242-3592 TECHJA J Cable Address: AUTOANAL TECH

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1978 APR 14 AM 9:41
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5- Env + Health

The Rockefeller Foundation

1133 AVENUE OF THE AMERICAS, NEW YORK, N.Y. 10036

Natural and Environmental
Sciences

CABLE: ROCKFOUND. NEW YORK
TELEPHONE: (212) 869 - 8500

April 11, 1978

Dear Dr. Lee:

The Rockefeller Foundation is presently exploring the possibility of a new initiative under our Conquest of Hunger program which would focus on sustained productivity for marginal lands and fragile environments. As a component of this exploration we are examining the potential for and problems associated with food, fiber and fuel production in tropical rain forests. To assist us in making a preliminary assessment and in formulating a procedure which will lead to a more thorough analysis and if appropriate to a strategy under which programmatic activities would be supported, we plan to hold a small conference on sustained productivity in tropical rain forests. Dr. Robert Goodland of your office has already provided us with advice on this topic and we would very much appreciate it if he could join us for this one day preliminary assessment and planning session. He has indicated his willingness to do so but also suggested that we seek your approval.

It will be a small conference involving only five or six outside experts and an approximately equal number of Foundation officers. However, there should be a broad range of disciplinary expertise represented including agronomy, ecology, forestry and economics. Hopefully this will lead to a lively and substantive discussion. We believe that Dr. Goodland can bring an experienced ecological perspective to the discussions.

The conference is scheduled for 9:30 A.M. to 4:30 P.M. on May 18, 1978. It will be held in the Foundation's New York offices. The Foundation will reimburse Dr. Goodland for all expenses incurred.

We have found our previous conversations with Dr. Goodland most productive and hope that he will be able to join us on May 18th.

Dr. James Lee
Page 2
April 11, 1978

Thank you for your assistance.

Sincerely yours,



Gary H. Toenniessen
Assistant Director

Dr. James Lee
Office of Environmental and
Health Affairs
The World Bank
1818 H St., N.W.
Washington, D.C. 20433

GHT:mj

S. Environment



The 6th Technicon International Symposium on
Environmental Changes and Biological Response

Sextum Technicon Inter Gentes Symposium de
Ambientalis Mutationibus et Biologicis Responsis

July 7-9, 1978, International Convention Hall, Sasakawa Hall, Tokyo

Mr. James A. Lee
Environmental and Health Adviser
Office of Environmental and Health Affairs
World Bank
1818 H Street N.W.
Washington, D.C.
20433 U.S.A.

April 7, 1978

Dear Mr. James A. Lee,

It is our great honor indeed to invite you as a special guest to the coming 6th Technicon International Symposium on "Environmental Changes and Biological Response" scheduled in Tokyo from July 7th to 9th this year.

We believe that the Symposium will certainly evoke keen interests among every attendance, since it offers great opportunities to see and hear our outstanding contemporaries in respective field of sciences.

Meanwhile, we are much obliged if you kindly confirm our understanding that you are ready to read a paper at the Symposium, by making out an abstract according to the attached instructions.

At the same time, please fill in the enclosed FORM and return the same to us, so that reservations for your airflight and hotel accommodations may be readily arranged through Japan Travel Bureau, Inc. to your satisfaction.

Yours very truly,



K. Kawasaki
Preparatory Committee for The 6th
Technicon International Symposium

c.c.: World Bank, Tokyo Branch

Preparatory Committee for The 6th Technicon International Symposium

Hazama Building, 5-8 Kita-Aoyama 2-chome, Minato-ku, Tokyo 107 Japan

Telephone: (03)-405-7311 Telex: 242-3592 TECHJA J Cable Address: AUTOANAL TECH

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1978 APR 17 PM 1:42

INCOMING MAIL UNIT

April 7, 1978

Dr. P. L. de Reeder
Akzo NV
P.O. Box 60
Arnhem, Holland

Dear Dr. de Reeder:

Thank you for your letter of January 26, 1978, to Dr. James A. Lee enclosing your pamphlet entitled "Environmental Programmes of Intergovernmental Organizations".

The World Bank is actively concerned with the environmental dimensions of its activities and has been formally incorporating such considerations into its projects since 1970. As you correctly stated in your letter, the Bank does not have "an environmental action or research programme in the narrow meaning of these words..." Indeed, since such a large percentage of Bank-financed projects deal with some form of environmental manipulations or other, all projects need to be designed and scrutinized from a sound environmental perspective. This activity is implemented through (a) curative (pollution control measures), as well as (b) preventive (resource management) approaches; thus not only minimizing potential negative environmental consequences, but also maximizing positive environmental opportunities.

Following your request, I am here sending you a copy of the following Bank documents:

1. Environmental, Health and Human Ecologic Considerations in Economic Development Projects
2. Environment and Development
3. The World Bank's Role in Schistosomiasis Control
4. Forestry--a Sector Policy Paper

"Environmental, Health and Human Ecologic Considerations in Economic Development Projects" and "Environment and Development" are currently being updated in some respects but not so substantially as to render them obsolete.

Dr. P. L. de Reeded

-2-

April 7, 1978

We appreciate the interest which you have taken in enquiring about the environmental aspects of World Bank projects. Please let us know if we can be of any further assistance concerning your work with the survey of environmental programmes of intergovernmental organizations.

Sincerely yours,

H. Reitze
Office of Environmental
and Health Affairs

Enclosures

bcc: Dr. James A. Lee (To be circulated to J. Tikhon, R. Overby, R. Goodland)

HR HR/ag

OFFICIAL FILE COPY

April 7, 1978

Dear Dr. Dieterich:

Please accept my apologies for this late reply to your letter of December 23, 1977, inviting comments on your draft policy statement on the health aspects of water resources development projects. We do not have any comments to offer at this time.

With best regards,

Sincerely yours,

H. Reitze
Office of Environmental
and Health Affairs

Dr. B. H. Dieterich
Director
Division of Environmental Health
World Health Organization
1211 Geneva 27
Switzerland

bcc: Dr. James A. Lee

 HR/ag

April 7, 1978

Dear Mr. Tsubo:

Thank you for your letter of January 10 inviting us to participate in the 6th Technicon International Symposium on "Environmental Changes and Biological Response."


While we are interested in the subject matter of this symposium, we are unfortunately not in a position to send a Bank representative on this occasion. We would, however, appreciate receiving any proceedings you may publish from the session.

Sincerely yours,

H. Reitze
Office of Environmental
and Health Affairs

Mr. Takeshi Tsubo
Chairman
Preparatory Committee for the
6th Technicon International Symposium
International Convention Hall
Bazama Building
5-8 Kita-Aoyama 2-chome
Minato-Ku
Tokyo 107, Japan

bcc: Dr. James A. Lee

 HR/ag

April 7, 1978

Dear Mr. Rodriguez:

Thank you for your letter to Dr. James A. Lee of February 6, 1978, and enclosing the document which outlines the upcoming workshop of PRIMOPS.

This document has now been evaluated by staff both in- and out-side this Office. While it appears to be a most worthwhile and interesting project, the Bank would be precluded from active participation in it at this stage. Main reasons behind this standing are: (1) the Bank's Research Program only finances studies and research which are directly related and linked to specific country projects; and (2) in order to warrant Bank financing, there must be some degree of active staff involvement in the particular research project.

All our references about the PRIMOPS program are indeed excellent. Therefore, we would appreciate being kept informed of developments in the program with an eye to possible future active Bank participation.

I wish to take this opportunity to wish you and your guests and participants a most successful workshop.

Sincerely yours,

H. Reitze
Office of Environmental
and Health Affairs

Mr. Jaime Rodriguez
Director Programa
PRIMOPS
Universidad del Valle
Division de Salud
Departamento de Medicina Social
Apartado 2188
Cali, Colombia

bcc: Mr. F. Cabezas, LC2
Mr. A. Choksi, DED
Mr. O. Grimes, Jr., URB
Dr. James A. Lee, OEHA (To be circulated to all OEHA Health Staff)

HR/ag

OFFICIAL FILE COPY

HARVARD UNIVERSITY
SCHOOL OF PUBLIC HEALTH

DEPARTMENT OF
TROPICAL PUBLIC HEALTH

TEL. (617) 732-1201

CABLE ADDRESS: TROPHEALTH, BOSTON

665 HUNTINGTON AVENUE
BOSTON, MASSACHUSETTS 02115

6 April 1978

Dr. James A. Lee, Director
Office of Environmental and Health Affairs
The World Bank
1818 H Street, N.W.
Washington, D.C. 20433

Dear Jim:

This is a reminder that we are expecting you on Friday, April 21, at 10:30 a.m. The visiting lecturer talks for an hour and then there is general discussion. A course schedule is attached.

Please as soon as possible provide me with one or two short references (or better, reprints thereof) of papers that would be good background required reading. This year we hope that "home-work" will be done by the students prior to the appearance of the speaker.

Please let me know if we can help with travel arrangements, housing, etc.

I see we will be together in Lima, Peru.

With warm regards,

Tom Weller

Thomas H. Weller, M.D.
Richard Pearson Strong Professor of
Tropical Public Health and
Chairman of the Department

W

Enclosure

UNITED STATES DEPARTMENT OF JUSTICE

FEDERAL BUREAU OF INVESTIGATION

WASHINGTON, D.C. 20535

APR 12 1978
FBI - NEW YORK
APR 12 1978

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DEPARTMENT OF TROPICAL PUBLIC HEALTH
Harvard School of Public Health

Spring - 1978

Tropical Public Health 203d

Perspectives in Tropical Health

Seminars, Fridays 10:30 a.m. - 12:30 p.m.

Kresge Bldg. - Auditorium G-2
677 Huntington Avenue

- April 7 Interactions between tropical agriculture and health
- Dr. Hugh Popenoe
Director, Center for Tropical Agriculture
University of Florida
- April 14 Current activities of the Agency for International Development
in the field of health
- Dr. Lee Howard
Director, Office of Health
Development Support Bureau
Agency for International Development
- April 21 Health and the development process as viewed by the World Bank
- Dr. James Lee
Director, Office of Environmental and Health Affairs
The World Bank
- April 28 CDC and international health
- Dr. William Foege
Director, Center for Disease Control
- May 5 Squatter settlements and urbanization in Latin America:
associated health problems
- John A. Steffian
Professor of Architecture
Department of Architecture and Architectural Engineering
University of Miami
- May 12 Nutrition and the health of nations
- Dr. Nevin Scrimshaw
Chairman, Dept. Nutrition and Food Science
Massachusetts Institute of Technology

Dr. N.R.E. Fendall
Professor and Head
Department of Tropical Community Health
Liverpool School of Tropical Medicine

Dr. David Sencer
Vice President
Becton-Dickinson Company



UNITED NATIONS ENVIRONMENT PROGRAMME
PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT



Cable Address: UNITERRA, Nairobi
Telex No. 22068
Telephone: 33920 333930

P. O. Box 30552,
Nairobi.

HR Am - Env + Health

412 0700 6 April 1978

Ref. No. PRO 150/33

Dear Mr. Lee,

.....

I am enclosing herewith, excerpts from a draft paper which is currently under preparation for the Inter-Agency Joint Programming on Environmental Education and Training, which has been scheduled to take place in Paris from 24-26 April 1978.

I would be grateful for your comments and suggestions as to the entry under item 3.13.

Yours sincerely,

Yusuf J. Ahmad
Deputy Assistant Executive Director,
Bureau of Fund and Administration

Dr. James Lee
World Bank
1818 H. Street, N.W.
Washington D.C. 20433
U.S.A.



1978

.....
The High Commissioner for Refugees has the honor to acknowledge the receipt of your letter of 14 April 1978, in which you requested that the United Nations Office of the High Commissioner for Refugees be kept informed of the progress of the work of the Commission on the Status of Women in the field of the rights of women and girls.

The Commission on the Status of Women is a subsidiary body of the Economic and Social Council of the United Nations, which was established in 1946. It is the only international body devoted exclusively to the promotion of the status of women.

Handwritten signature

Very truly yours,
[Signature]

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1978 APR 13 AM 11:51
INFORMAL MEETING

In the field of Health Education, WHO is promoting and providing assistance in the incorporation of health education into the training of all categories of health and health-related personnel, and the development of a core of specialists in health education. Vital components of such help include: the development and strengthening of institutions involved in the training of health specialists, help in curriculum development and strengthening of the teaching of health education in all schools for health workers, and the utilization of field training for trials of health education on materials and methods that will be particularly useful in the development of primary health care services and the training of voluntary and village health workers. Furthermore, in line with the emphasis of the Sixth General Programme of work on the health problems of the developing and least developed countries, WHO will intensify its activities in this field and the following related areas: health education component of primary health care, health education aspects of basic health measures and health education in the promotion of family health.

In addition, WHO's health education unit has intensified its efforts to arouse public interest in environmental health. The Organization is also giving high priority in all regions to the strengthening of the environmental health capabilities with special emphasis on the exchange of information on the effects of health of conditions in the environment and on the strengthening of regional centres capable of undertaking and assisting in the identification of environmental health problems and the transfer of technology for rural water supply and sanitation in all regions. Moreover, WHO assists governments in the education and training of environmental health personnel including sanitary engineers and symposia and special courses.

WHO activities relevant to environmental education and training include: public health engineering courses, course on public health with emphasis on rural health, course on environmental pollution and air pollution, environmental health engineering courses, post-graduate training in environmental sciences, training course on Coastal Water pollution control (WHO/DANIDA), training courses in Water Quality Analysis and Management, training course in Environmental Planning, training of health inspectors, sanitarians, nurses and public health engineers, training centres for Water and Sewage works operators, sanitary engineering and municipal programming, study of the regional training needs on environmental health, study on Manpower requirements in Environmental Health, study on operation and maintenance of water treatment plants, study on planning and design of Waterworks, study on water sanitation, inspection and control, regional seminar on Solid Wastes Management and seminar on Environmental Health Manpower Development.

3.13 International Bank for Reconstruction and Development (IBRD)

The World Bank Group's involvement in environmental affairs started in earnest in 1970. Together with other international development agencies, the World Bank Group is presently using and developing improved detailed environmental considerations, criteria and standards,

and tolerance levels, which should be taken into account during the planning and appraisal stages of development projects.

Thus, ^{in principle} all of the World Bank Group's projects are scrutinized and monitored for appropriate environmental precautions and opportunities. Similarly, all of the Bank's environmental activities are related and tailored to individual projects.

Within the context of its economic development assistance, particular clauses for environmental education and training are incorporated into specific projects. In line with this, the Economic Development Institute of the World Bank Group has provided support for environmentally-oriented education and training activities as part of its overseas training programmes, and has produced teaching materials on environment and development. ✓ EDC

The following are some of the approved education projects for Bank and IDA assistance in fiscal 1976 and in 1977 which have included, where necessary individual environmental considerations: EDC

Cameroon: This third education project was designed to assist the Government in the creation or expansion and improvement of agricultural, rural health, and technical education facilities (1976).

Morocco: Enhancement of Morocco's comprehensive strategy for rural education through the expansion and reorganization of the country's general, rural health, and agriculture extension education (1976).

Paraguay: Expansion of training programme of the National Vocational Training Service to meet the urgent needs of the economy for skilled and managerial workers. Accelerated training for rural youth, and in-plant training and management training have been emphasized (1976).

Tanzania: Provision of training for 1,500 managers of Ujamaa village through a Village Training Programme, the first comprehensive programme for in-service training in village development in the country (1976).

Yemen Arab Republic: Four new district training centres provide courses in literacy, basic occupational skills, and agriculture; in addition, women receive instruction in health, hygiene, nutrition, child care and domestic crafts (1976).

Bolivia: Assistance in finding cost effective ways of increasing access to primary education, in developing more appropriate curricula, and in designing a community education programme for the non-school-age population. Vocational training will also be expanded (1977).

Liberia: This third education project supports the country's manpower development efforts by providing assistance for industrial and vocational training, forestry training, manpower planning, educational architecture, and science and technology education at the secondary school level (1977).

Philippines. Strong national centres in forestry, animal science, and veterinary medicine will be established at the University of the Philippines at Los Baños, and the Visayas State College of Agriculture will be upgraded. In addition, a national system for in-service training of field extension workers and non-formal training of farmer leaders will be developed through the establishment of training centres for rural development (1977).

3.14 World Meteorological Organization (WMO)

In accordance with the decision of the Seventh World Meteorological Congress (WMO), activities in the field of education and training continued to receive high priority. As in the past, the main features of these activities consisted in preparation of training syllabi publication of training compendia of lecture notes, establishment of national and regional training centres, organization of regional and inter-regional training seminars/symposia, conferences and granting of fellowships.

The WMO "Guidelines for the Education and Training of Personnel in Meteorology and Operational Hydrology" contains syllabi and training programme for no fewer than 15 fields of meteorological applications. Based on these syllabi numerous training text books and compendia of lecture notes have been published by the Organization for the use of students and the instructors alike. Special attention has been paid to fields such as agrometeorology, climatology and operational hydrology. A catalogue of available training facilities in meteorology around the world has been published by WMO and kept continuously up to date. The WMO training seminars and symposia cover a wide range of fields of theoretical and applied nature. All these activities are co-ordinated by a special Panel of Expert established by the WMO Executive Committee.

WMO's environmental education and training programme gives special attention to the meteorological aspects of atmospheric marine pollution. In collaboration with UNEP and other UN agencies, during the recent years, the Organization has conducted a number of regional training courses on the measurement of atmospheric background pollution. In collaboration with its Members, WMO is also organizing similar courses for the benefit of the students from the developing countries.

In the context of the education and training activities in the field of the protection of the environment, the following specific events should be mentioned:

- (a) The organization of a world wide "Conference on Education and Training in Meteorological Aspects of Atmospheric Pollution and related Environmental Problems" (February 1977);

IIED INTERNATIONAL INSTITUTE FOR ENVIRONMENT AND DEVELOPMENT

President: Barbara Ward (Baroness Jackson of Lodsworth, D.B.E.)

Suite 501
1302 Eighteenth Street, NW
Washington, DC 20036
(202) 462-0900
Telex: IIEDWASH64414

April 4, 1978

Dr. James Lee, Director
Office of Environmental and Health Affairs
World Bank - Room E-1005
1818 H Street, N.W.
Washington, D.C. 20433

Dear Dr. Lee:

not encl.
A copy of the final draft report of the IIED Assessment Team reviewing the environmental assessment programs of multilateral lending agencies is enclosed. We are planning to publish this report and would very much appreciate receiving any comments in advance of publication. We expect to go to press on May 1 and hope to receive your comments in advance of that time, to permit us to take them into account.

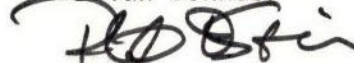
On behalf of the IIED Assessment Team, we would like to thank you and other officials and staff of the World Bank for your time and cooperation. We hope that we have accurately reflected the work that is being done by the World Bank.

With kind regards,

Yours sincerely,



Brian Johnson



Robert E. Stein

Project Co-Directors

cc: Warren Baum

April 3, 1978

Baron Leon de Rosen
United Nations Environment Programme
17 Rue Margueritte
75017 Paris
FRANCE

Re: Workshop on Environmental Aspects of
Iron and Steel Industry

Dear Leon:

Dr. James A. Lee has forwarded to me your March 2nd letter. As soon as we receive the 1st phase report, we shall circulate it among our steel specialists and they will directly send their observations to you.

As far as the meeting in October, 17-20, 1978 in Geneva is concerned, it is still too early to decide who should go. If the scheduled meeting coincides with a mission that includes a steel specialist, we will be pleased to participate.

Best personal regards.

Sincerely,



Jean M.H. Tixhon
Office of Environmental
and Health Affairs

cc: Dr. J. A. Lee
Mr. H. Reitze
Mr. R. King
Mr. J. Jaffe

JTixhon/md

April 3, 1976

Mr. Klaus-Heinrich Standke
Director for Science and Technology
United Nations
New York, New York 10017

Dear Mr. Standke:

With reference to your request for comments on the Environment chapter of UNEP's World Plan of Action document, and as relayed to us by Mr. H.A. Burney of our International Relations Department, I am hereby conveying to you some of the comments made by staff members of our Office.

The World Plan of Action's chapter on environment laudably aims at improving the development process. Ostensibly, this document tries to achieve this objective in two ways:

1. By educating unenlightened developers, and/or
2. By the distillation of crystal-clear, tightly prioritized, specific calls for action.

In our view, the educational objective is unlikely to take place if its aimed readership (unenlightened developers) is turned off with an academic, insipid, non-operational and lengthy document. The call-for-action objective is even less likely to occur, we believe, since the so-called "priorities for action", apart from not being priorities at all, are quite the opposite of being action-oriented. For example, page 69 lists 43 different items under the rubric of "Priorities for Action". They are neither ranked nor prioritized, besides being far too numerous to prompt any specific action. Thus, any "action" resulting from the unimpassioned exposure to these "priorities" is likely to be accidental.

Should UNEP desire to stimulate action, it is recommended:

1. To stringently edit the commendable points in the prose to the point where it will hold the interest of non-coerced readers.
2. To reshape the Action Priorities idea in order to make it slimmer, pragmatic, action-oriented, specific and achievable. Those sections without action priorities should be provided with one.

3. To decide and define most precisely the target audience. One document will not suffice for environmentalists and developers alike.

We offer these comments to you in the broadest spirit of cooperation and genuine interest in affecting our mutually shared goal of helping the less developed nations of the world with environmentally sound economic development assistance.

Sincerely,

Hernan Reitse
Interagency Liaison Officer
Office of Environmental and Health Affairs

HR
HR/fb

cc: Dr. James A. Lee
Messrs. Eagnar Overby; Robert Goodland; Jean Tixhon & Mahmud Burney

Dr. James A. Lee, Office of Environmental and
Health Affairs

April 3, 1978

L. J. Casazza, Office of Environmental and Health Affairs

NIGERIA - Working Paper for Preparation of Health Component--
Urban Development Project I

1. In accordance with terms of reference dated January 31, 1978, I participated in a mission headed by Mr. Michael Cohen, URB, to identify a health component for the first Nigerian Urban Development Project. The mission took place from February 6-24, visiting Lagos and the States of Bauchi and Imo. The cities considered for upgrading and sites and services under the project are Bauchi and Gombe in Bauchi State and Owerri, Aba and Umuahia in Imo State. This report will cover the highlights of the visit regarding the following points:

- I. The national health policies and programs.
- II. The current status of health program implementation in Bauchi and Imo States with particular attention to the target cities for the project.

More in-depth information on the federal and state health programs can be found in the documents listed in Attachment I on file in the Office of Environment and Health Affairs.

I. The National Health Policies and Programs

2. In response to a request from Government, WHO assisted the Nigerian Federal Ministry of Health to undertake a comprehensive health programming exercise in 1976. Not unexpectedly, the most serious health problems and the most urgent need for services were among the rural poor (70% of the total population) and the urban poverty groups. The total population of 75 million (1975 est.) growing at a rate of 2.5% annually has an estimated birth rate of 45 per 1000 and a crude death rate of 20/1000. While there are no data available to allow for an accurate picture of the health status of Nigeria, it is possible to estimate the main health problems on the basis of existing partial statistics. Using Lagos City Council mortality data for 1973, we find that 50% of the total deaths were in the 0-4 year old age group. Of these, 203 or 3.2% were due to neonatal tetanus and more than half of the deaths at 1-11 months were due to diarrhea and pneumonia. Measles accounted for at least 10% of the deaths in the first year. Effective action against these conditions entails immunization, adequate nutrition, readily available but simple curative care for the sick and basic health education for the mothers. Basic health services aimed at the 1-4 years age group should be similar with the addition of a malaria control program since in some holoendemic areas, 50% of the 1-4 year deaths are due to this disease. Malnutrition, malaria and gastroenteritis are likely to be all the more important for the morbidity load they impose. Basic health services must cope with this as well.

April 3, 1978

3. In April 1975, the Third National Development Plan was launched. It included a budget allocation for the Basic Health Services Scheme (BHSS) which has as its objective the extension of health coverage from the current 25% to nearly 60% for 1980. This requires the establishment of 400 basic health units (a BHU consists of 1 comprehensive health center, 4 primary health centers, 20 health clinics and 5 mobile clinics) to be proportionately distributed throughout the 19 states. A schematic for a BHU is shown in Attachment II. The objective of the BHSS is to deliver mainly out-patient medical treatment, in-patient maternity care and preventive family health care including MCH, family planning and nutrition services. While the concept is logical, the package of services appropriate and the need obvious, the standards for construction are extravagant and in the new states particularly, no trained manpower are available to launch the program. The 1976 WHO country programming exercise attempted to downscale the civil works but was criticized for advocating "second-class" services. At the same time, the elaborate hospital construction program in the Plan was moved ahead, further centralizing available services, personnel and financial resources.

4. Health manpower shortage is the critical constraint to the health sector development. So far the most significant output of the BHSS has been the establishment in all states of Schools of Health Technology to train new low-level health care providers. With curricula already developed and trainers now in place, the manpower training for the program can begin. Population ratios based on the existing and projected health manpower and infrastructure for the country are shown in the following table.

CURRENT RESOURCES AND TARGETS FOR HEALTH MANPOWER AND FACILITIES TO 1980

A. HEALTH MANPOWER	1972	1980
Doctor per population	1/22,000	1/14,000
Dentist per population	1/548,000	1/400,000
Registered midwife per population	1/4,200	1/3,000
Registered nurse per population	1/4,400	1/3,000
Community nurse per population	1/69,000	1/40,000
Pharmacist per population	1/68,000	1/40,000
Laboratory technologist per population	1/283,000	1/100,000
Radiographer per population	1/567,000	1/100,000
B. HEALTH ESTABLISHMENTS		
TOTAL	4,958 (42,698)	10,000 (87,000)
Bed per population	1/1,700	1/1,000
Teaching Hospitals	6 (2,798)	18 (11,000)
General Hospitals	339 (25,307)	450 (52,600)
Health Centres	239 (1,310)	1,650 (23,100)
Health Clinics	1,605 (---)	7,230 (28,920)

Note: The figures in parentheses refer to number of beds available.

Source: WHO Country Profile, Federal Republic of Nigeria, September 1976.

5. In addition to primary care delivery, the Government's Plan calls for establishing the necessary infrastructure to control malaria throughout the country. An allocation of ₦20 million has been provided for the program which is designed to reduce mortality and morbidity by 25% before 1980. Provisions have been made to establish epidemiological units at the central level in each state. These units should enhance the efficiency of the disease control programs. Also, targets for improvement of environmental health care are included in the Plan. Piped water for all communities of 20,000 or more, a minimum of 25 gallons of water per capita a day for urban centres and substantially more bore holes for the dry rural areas are called for. With regard to sewerage, drainage and refuse disposal, the "pail" system of collecting human waste in urban areas should be replaced with water system toilets and septic tanks. Finally, existing refuse disposal services should be improved and extended to new settlement areas. The BHSS will employ sanitary inspectors at the primary care centers to coordinate these local programs.

6. In all the states it is the State Commissioner of Health who is responsible to the State Executive Council for meeting the annual targets of the health program. He is assisted by a Permanent Secretary and the following professional heads: Chief Medical Officer (curative services), Chief Health Officer (preventive services), Chief Pharmacist and Chief Nursing Officer. While the Federal Ministry is responsible for all teaching, psychiatric and orthopedic hospitals throughout the Federation, the State Ministry has charge of all other health institutions in its area of jurisdiction (hospitals, health centers and training institutions for allied professional and auxiliary health personnel). Each state enjoys almost virtual autonomy in running the health services in its area. The National Council on Health, the highest advisory body of the Government, does exercise a coordinating role through its membership of all State Commissioners of Health and their Permanent Secretaries. Both at the federal and state levels there is still no effective intersectoral collaboration between the Ministry of Health and the other ministries. There is some indication that grass-roots coordination will occur through the mechanism of Local Government Authorities. To ensure coordination of health component activities at the state and federal levels, the Bank must recommend the convening of special preparation committees with multi-ministerial representation to plan its urban and rural development projects.

7. During wrap-up talks with Federal level officials of the Ministry of Health, I learned that recurrent budget constraints were plaguing any major attempt to implement the BHSS. So far, each state has received three mobile units from the Federal government in addition to the investments in training. For FY 79, each state will begin a pilot BHU with ₦5 million (roughly ₦4 million for construction and ₦1 million for equipment) from the federal budget for this purpose. Sadly enough, political influences have disrupted the siting pattern for the health clinics to the extent that management and referral support from the higher level facilities will be most difficult. The original target number of BHU's in the Third Plan has been reduced to 20 by 1980 with no incremental increase anticipated in the Fourth Plan. While the BHSS was originally to be 100% financed by the Central level, at this time the federal contribution is 70% with 25% required from the states

and 5% from local government authorities. Now government is willing to scale down to some degree the standards for construction and has a more realistic picture of the manpower training problem.

8. More positively, the BHSS does provide a national model for primary care delivery in the country which is compatible with the objectives of the Bank's Health Sector Policy. This is useful in that a national reference point exists for inserting multiple health components into future urban and rural development projects for Nigeria. The major constraint to this effort will be the limited recurrent budget resources since Government refuses to charge for any health services. Also, the absorptive capacity of each state to undertake the training, construction, supervision and logistics support necessary for success must be carefully assessed. This situation varies greatly between states with the new states being particularly disadvantaged.

II. Health Programming in Bauchi and Imo States

A. Bauchi

9. Bauchi State was carved out of the former North Eastern State of Nigeria in February 1976. The principal occupation of its estimated 3.2 million people is farming. Except for a few pockets of wealth in the main towns of Bauchi, Gombe, and Azare, the people are rural poor (85% live in rural areas). About 50% of its population are under 15 years of age. The infant mortality is estimated at 120/1,000 live births with about 10% of total pregnancies ending in stillborns or abortions. Data on morbidity and mortality rates by cause are generally unreliable but good approximations are given in the Bauchi BHSS preparation proposal (available in OEHA files). What is most impressive is the high utilization of the existing hospital facilities which draw widely from surrounding rural areas. In the absence of adequate intermediary facilities, the Gombe General Hospital in 1977 was called upon to care for 8,248 in-patients and 75,543 out-patients. This work load was borne by 5 physicians and 11 nurses supported by 3 midwives and 47 orderlies. The leading killers were malaria in children, respiratory and intestinal infections and accidents. The need for more primary and secondary levels of care is apparent.

10. The immediate constraint to providing adequate services in Bauchi is lack of manpower needed to train and supervise the health work. Thirty-six BHU's had been planned for Bauchi in the Third Five-Year Plan, but only one will be built. The project manager for the BHSS, a most capable professional, has been transferred to head the new Health Management Board to be formed in April. All the statistical staff have left for better pay in the private sector. The Chief Medical Officer must serve also as the Chief Health Officer. There is a great need for more technical staff for teaching in the new School of Health Technology as well as the Schools of Community Midwifery and Nursing. Dispensary staff are rarely supervised by hospital staff (the only available supervision personnel). Considerable investment in training for trainers and health workers should be the first step in order to break the cycle of the present situation.

11. Discussions with the Chief Medical Officer, Bauchi State, highlighted the weak administration and planning capacity of the Ministry. Key administrative posts must still be filled with expatriates due to the lack of available locals. Bauchi, a new state, nevertheless feels compelled to pattern its administrative organization and health-related institutions on the federal model. With the existing manpower already stretched to the breaking point, the State is about to establish a third training school and a new Health Management Board (functions as yet unidentified). Fiscal resources for service programs are also a serious problem. Major portions of the capital and recurrent budget are absorbed by the hospital programs. The only attempt at cost recovery is a 20 Kobo (US \$0.32) charge for a clinic registration card. Drugs are dispensed free in clinics when available and local governments in some areas are just beginning to contribute medical supplies. This alternative, if it becomes more widespread, has the added advantage of bypassing a clumsy government logistics system.

12. On the positive side, there is a commitment at the state level to provide primary care on a more decentralized basis and to train up para-professionals to deliver the services. There was enthusiasm, particularly from those involved in training, to set up a health component for Bauchi and Gombe towns under the first Bank-assisted urban project. The local staff identified the need for five urban health clinics in Bauchi town and one maternal and child welfare center in Gombe where sufficient dispensary facilities already exist. The preliminary description and the guidelines for further preparation are found in the Back-To-Office Report dated March 16, 1978. In addition to providing decentralized health facilities, the new infrastructure proposed under the component would add easily-accessible field training sites for the School of Health Technology. Training fellowships for new trainers would be included. Furthermore, this component would be a useful first phase for possible future investment in BHSS expansion which may be included in the upcoming rural development project. The itemized budget for the Bauchi State Health component is shown in Attachment III.

B. Imo State

13. In contrast to Bauchi, Imo State (the core of the former Biafra) is in a much stronger position to undertake a health component. While time did not permit the extensive data collection and interviewing possible in Bauchi, it is safe to presume that the mortality, morbidity picture is much like that described for Bauchi, if not worse. Discussions with the well-seasoned staff of the Imo Ministry of Health indicated a high level of expertise and enthusiasm to prepare a component in the towns of Owerri, Aba and Umuahia. As in Bauchi, Imo had set out to implement its BHSS proposal, but so far only had plans for the first BHU in FY 79. There is a full time BHSS project officer assigned who will be most helpful in preparing the Imo health component. The BHSS package of services will be similar to that in Bauchi except in Imo, family planning seemed more openly discussed and encouraged than in the Moslem north. The Imo Ministry of Health readily admitted that the BHSS civil works were overdesigned and proposed a new clinic design costing approximately 50% of the original estimate.

14. At the present time, about 5% of the state budget goes to health, roughly about half of the state's allocation for education. The health budget in Imo has likewise been oriented to hospital construction; the FY 78 year saw eight general hospitals and a new 300-bed specialist hospital added. Administratively, all staff positions are filled in Imo with the Chief Health Officer taking the lead in preventive health programming. Many of her staff have trained abroad and feel frustrated that the federal government budget restricts them from implementing programs which the State obviously needs. Finally, according to the federal plan, Imo has established a Health Management Board which for now will be restricted to management of hospitals only.

15. As in Bauchi, the aim of the urban project health component in Imo is to decentralize the overutilized hospital out-patient departments and to increase the acceptance of preventive health practices by making them more readily available in the target neighborhoods. Currently, Owerri has one 250-bed hospital and one maternal-child welfare center (not located in the proposed project areas), Umuahia has no clinics outside the town hospital, while Aba has four maternal-child welfare centers in a dilapidated condition since the Civil War. The health component calls for six health clinics in Owerri (2 in the old city and 4 in the sites and service area), 4 in Aba and 2 in Umuahia. In addition, it is proposed that about 1,150 households in the old town section of Owerri will be converted from "pail" to septic tank waste disposal. The Aba Schools of Health Technology and Community Midwifery can easily undertake the added manpower training requirements. The staffing patterns and the itemized budget for the Imo component are shown in Attachment IV. As in Bauchi, detailed steps for component preparation were left with the health staff as well as for the consultant team who will assist with project preparation in the state. These can be found in the Imo State Aide Memoire shown in the March 17, 1978 Back-To-Office Report. Two additions were made to the Aide Memoire which do not appear in the original: first, school health would be added to the package of services to be provided out of the clinics; second, a plan for conversion of Owerri central city from "pail" to septic tank waste disposal would be prepared by the team for submission to the Bank before appraisal.

III Summary

16. Despite serious difficulties in travelling about in Lagos and to the project states, the mission was successful in identifying a health component for the first Nigerian Urban Projects. It is admittedly an ambitious component (about \$ US 4 million) in view of the current difficulties in implementing the BHSS and the recurrent budget constraints. An added risk is the apparent reluctance of the Federal Ministry of Works to mount a urban housing project which attempts to recover costs. Yet it is recommended to undertake a component of this magnitude in view of the expertise and resources at the State level who are eager to expand their BHSS programs. The components represent significant early steps needed to gain experience in training and supervising BHSS staff in the field. Evaluation of these component efforts would be useful indicators for the states to plan future expansion of their

Dr. James A. Lee

- 7 -

Ypc
April 3, 1978

BHSS withor without additional Bank assistance.

17. The next preparat~~ion~~ mission is scheduled for May, 1978. This Office will not participate in that mission but the project officer, Mr. M. Cohen, will follow up on component preparation with particular attention to the recurrent cost tables and the funding mechanisms proposed for meeting that requirement. OEHA will participate in the pre-appraisal mission tentatively scheduled for August, 1978.

cc and Clearance Mr. M. Cohen, URB

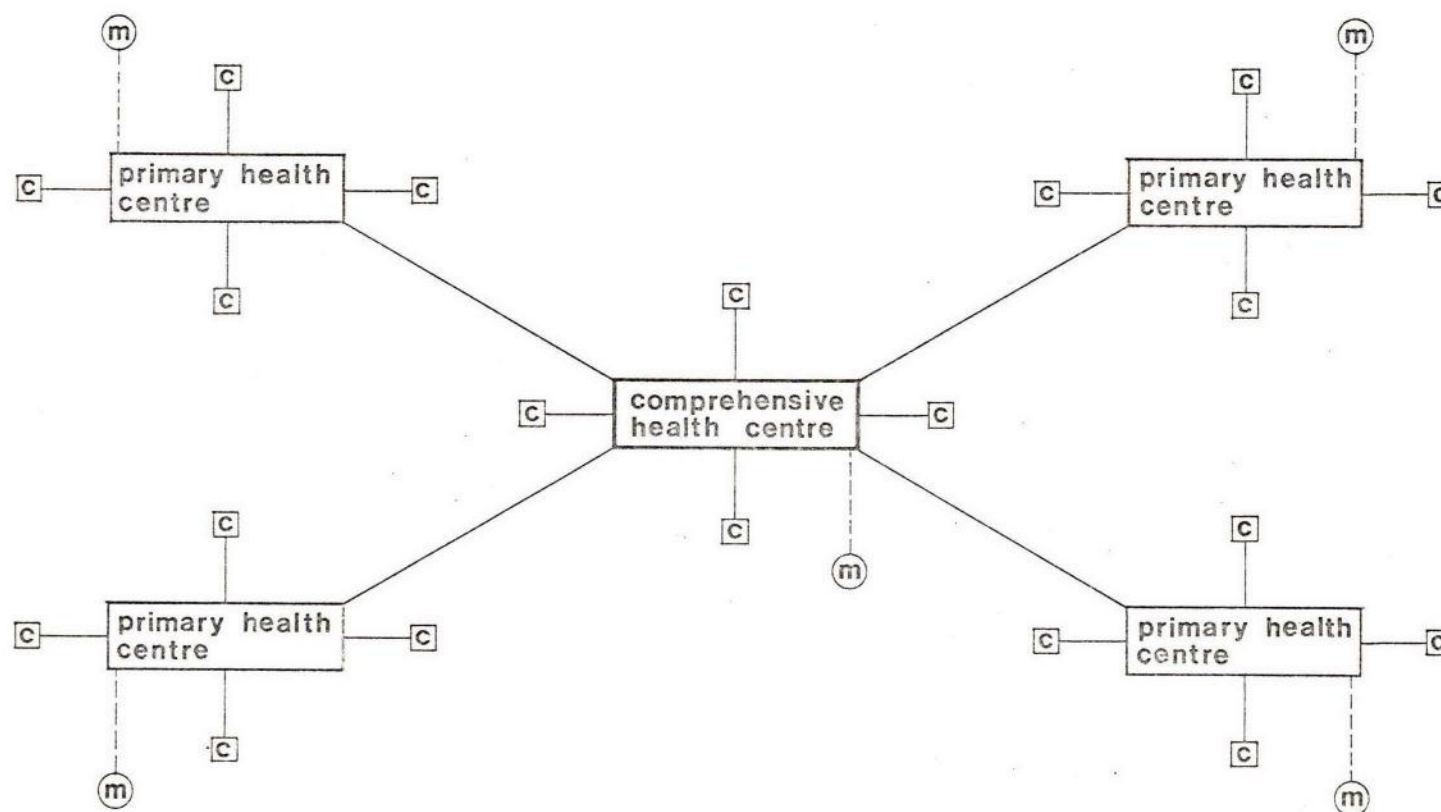
cc: Dr. B. Liese, OEHA
Mr. H. Messenger, POP
Mr. W. Thalwitz, WAP
Mr. R. Grimshaw, WAP
Mr. D. Singh, URB
Mr. E. Waycox, URB
Mr. A. Churchill, URB
Mr. N. Lethbridge, URB
Mr. A. Stone, URB
Mr. J. Ford, URB
Mr. L. Pouliquen, WAP
Mr. A. Cole, WAP
Mr. W. Cosgrove, WAP

LCasazza/md

Documents relating to Nigerian Health Sector

1. WHO Country Profile, Federal Republic of Nigeria, September 1976.
2. Report by Federal Ministry of Health and Watkins, Gray Woodgate (Nigeria) in "Development of Basic Health Services in Nigeria", 1975.
3. 1977 Revised Salary Scales
4. Vital Statistics - Lagos City (1968-1975)
5. Health Establishments by State and Type in Nigeria, December 1975
6. Health Manpower and Facilities in Nigeria (1960-1975)
7. Population estimates (1980-1999) by State and their implications for social welfare services.
8. Mid-year population projections by states (1963-2000).
9. Capital Health Projects in Third National Development Plan (1975-80).
10. Sample curriculum for Community Health Officer for Basic Health Services Scheme (BHSS).
11. Major Causes of Morbidity and Mortality in Nigeria (1974-76), by State and Disease
12. The Role of Nutrition Services of the Federal Ministry of Health with the States of the Federation.
13. Bauchi State Ministry of Health - List of Dispensaries, Maternity and Child Welfare.
14. Curriculum Planning Brochure - Bauchi State Community Nurses Training School.
15. District Map of Bauchi State
16. Bauchi State Plan for Implementation of BHSS (1975-80)
17. Summary of Medical and Health Institutions in Bauchi together with personnel manning them.
18. Summary of 1977 Annual Report - Bauchi General Hospital.
19. Final Annual Report - Gombe General Hospital.
20. 1976 Annual Report from Bauchi State Ministry of Health
21. 1977 Annual Malaria Control Report - Bauchi State

22. Implementation Proposal for the BHSS of the Federal Republic of Nigeria - 1976
23. Bauchi State BHSS Program Proposal - 1976
24. Report on the Family Health Project of the Institute of Child Health, University of Lagos, 1976.
25. Miscellaneous related newspaper clippings.



c = health clinic
m = mobile clinic

BASIC HEALTH UNIT
FOR A POPULATION OF 100,000

BAUCHI STATE HEALTH COMPONENT BUDGETBauchi and Gombe Towns

A. Capital Costs

1) Civil Works (N1.5 sq. meter)	<u>AMOUNT</u>
a) 5 health clinics at N30,000 each	150,000
b) 1 maternal-child welfare center at N50,000 each	<u>50,000</u>
Subtotal	N 200,000
2) Equipment and Vehicles	
a) Equipment for 5 clinics at N5,000 each	25,000
b) Equipment for 1 maternal-child welfare center at N7,000 each	7,000
c) 2 vehicles/facility at N5,000 each	<u>60,000</u>
Subtotal	N 92,000
3. Training Costs	
a) Equipment for new School of Health Technology	10,000
b) Traineeships for new trainers	10,000
c) Training costs for new staff	
--12 health assistants (2 per facility) at N2,300 each	27,600
-- 5 health inspectors (one per clinic) at N6,500 each	32,500
-- 7 community midwives (one per clinic and 2 per center) at N7,000 each	49,000
-- 12 health aides(two per facility) at N1,500 each	18,000
-- 2 supervisory health sisters (one per town) at N3,500 each	<u>7,000</u>
Subtotal	N 154,100
Total	N 446,100 or
	US\$ 713,760

- B. Recurrent budget will be calculated on further preparation since real incremental increases in manpower and supplies were not available. Recurrent costs would be the responsibility of the state.

IMO STATE HEALTH COMPONENT BUDGETI. OWERRI

A. Capital costs

	<u>AMOUNT</u>
1) Civil Works	
a) 6 health clinics at N30,000 each (N1.5 per sq. meter)	180,000
Subtotal	180,000
2) Equipment and Vehicles	
a) Equipment for 6 clinics at N5,000 each	<u>30,000</u>
b) 2 vehicles/clinic at N5,000 each	60,000
Subtotal	90,000
3) Training Costs	
a) 12 health assistants (2 per clinic) at N2,300 each	27,600
b) 6 public health inspectors at N6,500	39,000
c) 6 community midwives (one per clinic) at N7,000 each	42,000
d) 12 health aides (2 per clinic at N1,500 each	18,000
e) 1 supervisory health sister at N3,500 each	<u>3,500</u>
Subtotal	130,100
4) Environmental Sanitation	
a) Conversion of 1,142 households from "pail" to septic tank at N1,000 each	<u>1,142,000</u>
Subtotal	1,142,000

B. Recurrent Costs

Prescise recurrent costs table to be worked out by preparation team for next mission vi it in July, 1978. Recurrent costs to be borne by the state budgets.

II. ABA

A. Capital Costs

1) Civil Works	
a) 4 health clinics at N30,000 each	<u>120,000</u>
Subtotal	120,000

ABA Continued

2) Equipment and Vehicles

a) Equipment for 4 clinics at N5,000 each	20,000
b) 2 vehicles/clinic at N5,000 each	<u>40,000</u>
Subtotal	60,000

3) Training Costs

a) Training equipment for School of Health Technology	10,000
b) Staff Training	
--4 health assistants (one per clinic) at N2,300 each	9,200
--4 public health inspectors (one per clinic) at N6,000 each	24,000
--4 community midwives (one per clinic) at N7,000 each	28,000
--8 health aides (2 per clinic) at N1,500 each	12,000
--1 health sister supervisor at N3,500	<u>3,500</u>
Subtotal	86,700

B. Recurrent Costs to be worked out and costs borne by government.

III. Omuahia

A. Capital Costs

1) Civil Works

a) 2 health clinics at N30,000 each	<u>60,000</u>
Subtotal	60,000

2) Equipment and Vehicles

a) Equipment for 2 clinics at N5,000 each	10,000
b) 2 vehicles/clinic at N5,000 each	<u>20,000</u>
Subtotal	30,000

3) Training Costs

a) 2 health assistants (1 per clinic) at N 2,300 each	4,600
b) 2 public health inspectors (one per clinic) at N6,000 each	12,000
c) 2 community midwives (one per clinic) at N7,000 each	14,000
d) 4 health aides (2 per clinic) at N1,500 each	6,000
e) 1 health sister supervisor at N3,500	<u>3,500</u>
Subtotal	40,100

B. Recurrent Costs

Cost tables to be prepared for next mission.

IV. General

1) Technical assistance for improving primary care management information system	20,000
2) Technical assistance for Clinic supply logistics study	<u>20,000</u>
Subtotal	<u>40,000</u>
Total	N <u>1,978,900</u> or
	US\$ 3,166,240

Health Component Grand Total

Bauchi State Component	N 446,100
Imo State Component	N <u>1,978,900</u>
	N <u>2,425,000</u> or
	US\$ 3,880,000

LIST OF PERSONS METLagos

1. Mr. Nsefik, Deputy Permanent Secretary for Health,
Federal Ministry of Health (FMOH)
2. Dr. Sulaiman, Director of Health Planning, (FMOH)
3. Mr. Ilo, Assistant Secretary for Planning, (FMOH)
4. Dr. Dada, Chief Statistician, (FMOH)
5. Dr. E. Smith, Director of Public Health Services, (FMOH)
6. Dr. Jumoke Aromasodu, Assistant Director of Public Health Services, (FMOH)
7. Dr. Nsolo, Director of Medical Services and Training, (FMOH)
8. Professor Q. Ransome-Kuti, Director Basic Health Service Scheme, (FMOH),
and Institute of Child Health
9. Mr. Ibidunne, Nutrition Division, (FMOH)
10. Dr. Williams, Consultant in Occupational and Environmental Health, (FMOH)
11. Mr. Lufadeju, Federal Ministry of Works and Housing
12. Mr. Abayomi Fajobi, Central Planning Office, Federal Ministry
of Economic Development
13. Dr. Cecile Desweemer, Population and Health Coordinator, Ford Foundation
14. Dr. Duale, WHO Acting Coordinator

Bauchi State - Bauchi Town

1. Mr. Skehu Awak, Permanent Secretary of Finance, Bauchi State
2. Mr. Usiman Shehu Wunti, Commissioner, Ministry of Works, Bauchi
3. Mr. Ali Gombe, Permanent Secretary, Ministry of Works, Bauchi
4. Mr. Sidhu, General Manager, Urban Development Board, Bauchi State
5. Mr. Ahmed Nusa, Permanent Secretary, Ministry of Health, Bauchi
6. Dr. N. A. Sajid, Chief Medical Officer, Ministry of Health, Bauchi
7. Dr. M. Bishara Saad, Principal Medical Officer for Preventive Health,
Ministry of Health, Bauchi
8. Dr. A. Katagum, Director, Health Management Board, Bauchi;
formerly project officer, Basic Health Service
Scheme, Bauchi

Bauchi State - Bauchi Town continued

9. Dr. A. Jumba, Principal Health Officer (Rural Health), Bauchi
10. Dr. Guanzon, Epidemiologist, Ministry of Health, Bauchi
11. Dr. Nagar, PMO, General Hospital, Bauchi
12. Miss Ambe, Principal, School of Community Midwifery, Bauchi
13. Miss Frazier, Principal, Nursing School, Bauchi
14. Miss Boyakilla, Directress, State Nutrition Unit, Bauchi

Bauchi State - Gombe

1. Dr. Dost Mohammed, Senior Medical Officer, Gombe General Hospital
2. Mr. A. Abdulkadir Abuballan, Secretary, Gombe General Hospital

Ino State - Owerri

1. Mr. Ohajunwa, Deputy Permanent Secretary, Ministry of Works
2. Mr. Obialo, Chief Town Planner
3. Mr. Peter Nwogu, staff, Town Planning Office
4. Mr. Joseph Udeogu, staff, Town Planning Office
5. Dr. Roland Asobie, Commissioner, Ministry of Health
6. Mr. Chidi Ebere, Permanent Secretary, Ministry of Health (MOH)
7. Dr. Nwoza (Nkele) Chief Health Officer, MOH
8. Dr. K. O. Ofondu, Director of Health Services, Interim Secretary,
Health Management Board
9. Mrs. Grace Nzeribe, Project Manager, Basic Health Services Scheme,
Isno State
10. Dr. C. O. Nwosu, Health Planner, and designated manager for possible
health component

Fundación Instituto de Investigaciones Científicas y Técnicas
(Resolución 6535 de Diciembre 19 de 1974)

SECRETARIADO
II CONGRESO IBEROAMERICANO
DEL MEDIO AMBIENTE

Bogotá, D.E., marzo 28 de 1978

Señor Doctor
ROBERT McNAMARA
Director General BIRF
1818 H Street
Washington, D.C. 20433 USA

Señor Director:

Entre los días 4 y 8 de septiembre de 1978, Bogotá será la sede del II Congreso Iberoamericano del Medio Ambiente. Este evento congregará al Sector Productivo Privado, al Sector Productivo Público y a la Comunidad Científica Iberoamericana, a fin de pronunciarse acerca de políticas, estrategias y nuevas tecnologías que permitan ejercer efectivamente una prevención y control de la contaminación ambiental.

Conocedores del énfasis que el BIRF da en sus prospectos de labor a temas relacionados con la protección del ambiente y de los recursos naturales, es de comprender que la participación de esa entidad será en este foro de países de habla hispana, fundamento para que los asistentes al Congreso conozcan las tesis que en estas materias sustenta la Organización que Usted regenta.

A fin de adelantar en este sentido las comunicaciones del caso, acompaño a la presente, la información preliminar del Congreso. Más adelante, comunicaré a Usted la fecha en que el Presidente del Congreso, Doctor Manuel M. Quevedo lo visitará en su despacho, con el propósito de detallar la participación de esa Institución y, si es posible, la asistencia de Usted a la sesión inaugural del evento el día 4 de septiembre, a las 11 de la mañana del presente año en Bogotá.

Reciba Señor Director, un cordial saludo,

JUAN CARRANZA

Secretario II Congreso Iberoamericano
del Medio Ambiente

Estimado Delegado:

Con el objeto de facilitar su inscripción al II CONGRESO DEL MEDIO AMBIENTE, gustosamente suministramos la siguiente información:

I. VALOR Y FECHA DE INSCRIPCION:

Delegados	US\$ 100.00	ANTES DEL 25 DE ABRIL DE 1978
	US\$ 120.00	DESPUES DEL 25 DE ABRIL DE 1978
Acompañantes*	US\$ 30.00	

II. SEDE DEL CONGRESO: Hotel Tequendama Intercontinental.

III. IDIOMA OFICIAL: Español.

IV. DEBE ENVIAR LA INSCRIPCION Y RESERVA HOTELERA ACOMPAÑADA CON SU RESPECTIVO PAGO A:

WAGONS-LITS TURISMO
Carrera 5 N° 15-91, Oficina 401
Bogotá, Colombia S. A.
Señor José Manuel Mejía, Congresos
Agencia Oficial nombrada por el Secretario del Congreso.

V. LISTA DE HOTELES: Precio por persona de Septiembre 03 al 10, 1978
(7 noches sin comidas).

	HAB. SENCILLA	HAB. DOBLE	HAB. TRIPLE
HOTEL TEQUENDAMA	US\$ 196.00	US\$ 123.00	US\$ 100.00
HOTEL BACATA	US\$ 139.00	US\$ 95.00	US\$ 78.00
HOTEL DANN	US\$ 109.00	US\$ 72.00	US\$ 60.00
HOTEL PRESIDENTE			

FORMATO PARA RESERVA HOTELERA (Favor enviarlo antes del 25 de Abril, 1978)

HOTEL DESEADO _____

NOMBRE (S) _____

DIRECCION _____

CIUDAD _____ PAIS _____

TIPO DE HABITACION SENCILLA ☐ DOBLE ☐ TRIPLE ☐

NUMERO DE HABITACIONES _____

FECHA DE LLEGADA _____ VUELO _____

FECHA DE SALIDA _____ VUELO _____