

NGO PARTICIPATION IN THE UNEP ENVIRONMENTAL EDUCATION PROGRAMME

PROJECT NO. FP/O301-77-03

TERMINAL PROJECT REPORT

From:

Environment Liaison Centre, P.O. Box 72461,
Nairobi, Kenya.

NGO PARTICIPATION IN THE UNEP ENVIRONMENTAL EDUCATION PROGRAMME

PROJECT NO. FP/O301 - 77 - 03

TERMINAL PROJECT REPORT

Prepared by Serena Zwangobani,
Environment Liaison Centre, P.O. Box 72461,
Nairobi, Kenya.

Submitted to U.N.E.P.
14 September 1978

CONTENTS

<u>Section No.</u>	<u>Subject Heading</u>	<u>Page</u>
1.00	Introduction	1
1.01	Objectives	1
1.02	Achievements	2
2.00	ELC Observers at the UNESCO/UNEP Conference on Environmental Education	3
2.01	NGO Representation at the Conference	3
2.02	NGO Activities	4
2.03	Publications Produced for the Conference	5
2.04	Conference Recommendations	5
2.05	Informing NGOs About the Conference and Environmental Education	6
3.00	The NGO Workshop for Environ- mental Education Cooperation	6
3.01	Invitations and Advance Publicity	6
3.02	Workshop Participants	7
3.03	Workshop Agenda and Time- table	8
3.04	Information Resources at the Workshop	8
3.05	Guest Speakers	9
3.06	Workshop Resolution and Recommendations	10
3.07	NGO Environmental Education Steering Committee	10
4.00	Follow-up Phase of the Project, after the Conference & Workshop	11
4.01	Information : Information Sharing on Environmental Education	11
4.02	Communication ; Developing a Communication Network Among NGOs Active in Environmental Education	13
4.03	Future Planning	14

CONTENTS

<u>Section No.</u>	<u>Subject Heading</u>	<u>Page</u>
5.00	Project Proposal for Future Support of NGO Environmental Education Activities	15
5.01	Development of the Project Proposal	15
5.02	The Project Proposal	16
6.00	Summary	17

APPENDICES

<u>Title</u>	<u>Appendix</u>
Staff and Consultants for the Project	A
Governmental and Intergovernmental Officials Who Gave Briefings to NGOs at the Tbilisi Conference	B
Brochure Inviting NGOs to the NGO Workshop for Environmental Education Cooperation	C
Press Releases Concerning the Intergovernmental Conference for Environmental Education & the NGO Workshop for Environmental Education Cooperation	D
Participants at the NGO Workshop for Environmental Education Cooperation	E
Abstracts of Papers Presented to the NGO Workshop for Environmental Education Cooperation	F
Resolution and Recommendations Adopted by the NGO Workshop for Environmental Education Cooperation	G
Publications Resulting From This Project	H
Clippings from Publications About This Project	I
Meetings Scheduled by NGOs Related to the Project, March - June 1978	J
Letters from NGO Representatives About the Project	K
Timetable of the Workshop for Environmental Education Cooperation	L
Project Proposal for Future Work in Environmental Education	M

1.00 Introduction

In August 1977, the Environment Liaison Centre (ELC) and the United Nations Environment Programme (UNEP) entered into a joint programme to strengthen global activity, and especially non-government organisation (NGO) activity, in the field of environmental education. Representatives of developing world NGOs were sponsored to the UNESCO/UNEP Intergovernmental Conference on Environmental Education held in Tbilisi, USSR, from 14-26 October 1977. Following the Conference, these same NGO representatives, as well as 45 other representatives of NGOs, attended the NGO Workshop for Environmental Education Cooperation, held in Geneva, Switzerland, 28-30 October 1977.

Recommendations coming from the Workshop were carried out by the two Project Coordinators. They divided the Follow-up Phase of the Project into two parts. One Project Coordinator developed a project proposal to encourage the development of NGO environmental education activities regionally through the publication of a bulletin after the completion of this project. The other developed the network of NGOs active in environmental education through correspondence and the production of a newsletter, 'EE Switchboard', to share news between NGOs on environmental education.

1.01 Objectives

The UNEP-ELC Environmental Education programme was designed to assist NGOs in developing countries share environmental education experiences, resources and strategies with one another, and with governmental personnel working in the field, in order to stimulate new activities and programmes on environmental education at the NGO and governmental levels. The Project activities were centred around the purpose of informing and involving NGOs in the international activities catalysed by the UNESCO/UNEP Intergovernmental Conference on Environmental Education.

The specific purposes of the Project were:-

For those NGOs whose representatives could attend the Conference and/or Workshop -

- (i) To make possible exchange of ideas and experiences among NGOs by supporting NGO attendance at the Conference, and at the post-Conference Workshop for Environmental Education Cooperation. This would strengthen the activities of each organisation represented. Each of the attendees,

being leaders in the field of environmental education in their region, had experiences which would have a definite spread effect in their home country and region.

For the NGOs who could not attend the Conference and Workshop, their involvement was included in the purposes of the Followup Phase of the Project, after the Conference and Workshop. Purposes for the Follow-up Phase were:

(ii) To encourage the development of environmental education at all levels in order to help increase consciousness and appreciation of environmental matters. This was done by:

- . supporting and encouraging the development of relevant research on environmental problems in developing countries;
- . promoting and supporting the organisation of national, regional and international symposia, seminars and workshops on environmental education.

(iii) To strengthen global activity, and especially NGO activity, in the field of environmental education following the Conference;

(iv) To establish an active network of NGOs interested in environmental education, thereby contributing to the expansion and effectiveness of global NGO activities in this field.

1.02

Achievements

As a result of the Project, the following has been achieved:

(i) Some of the information and impetus in the environmental education field resulting from the Tbilisi Conference has been shared directly by the 17 developing country NGOs represented at the Conference under sponsorship from the ELC, and also by the more than 300 NGOs communicating through this Project. An official Conference report including the recommendations from the Conference has now been published; however, through this Project at least 300 NGOs had received an ELC Conference Report and a summary of the recommendations before the UNESCO/UNEP report was available. The NGO network has also received news about global environmental education activities and publications.

(ii) Various regional centres among NGOs have been started with an NGO in those regions taking responsibility for stimulating closer working relationships among NGOs on environmental education.

(iii) A project proposal has been drawn up to assist NGOs through a regular bulletin on environmental education.

2.00 ELC Observers at the UNESCO/UNEP Intergovernmental Conference on Environmental Education.

The Conference, held at Tbilisi, USSR, from 14-26 October, 1977, was the major event in the development internationally of environmental education. However, being held far from most NGOs working in this field it looked very difficult for any but the large international NGOs to be represented. In response to this need, UNEP provided funds for the sponsorship of 20 NGO representatives from Developing Countries to attend the Conference to make sure that NGOs could be informed at the local and international levels. This sponsorship also made possible the attendance of ELC representatives who were, in the Follow-up Phase of this Project, able to spread information on the Conference to about 300 NGOs around the world. (For information on staff of the Project see Appendix B).

2.01 NGO Representation at the Conference.

Forty non-governmental organisation representatives attended the Conference. Thirty-five came from outside the USSR. Almost 50% were representatives sponsored by the ELC/UNEP. Those sponsored are shown in the list below :

*NGO Representatives Attending
The Conference and Workshop With
Sponsorship From ELC/UNEP*

*Asian Environment Council,
Thailand; Viroj na Bangchang*
*Bureau of Asian Affairs, Phil-
ippines; Amando Kapauan*
*Caribbean Conservation Assoc.,
Barbados; John Connell*
*Chamber of Architects, Turkey;
Süheyl Kircak*
*Consumers Association of Penang,
Malaysia; Irene Fernandez*
*Costa Rican Association for the
Conservation of Nature (ASCONA)
Costa Rica; Adelaida Chaverri*
*Environment Training Programme
(ENDA), Senegal;
Liberty Mhlanaa*
*Family Planning Association of
Sri Lanka;
Dayanath C. Jayasuriya*
*Indian Environment Society,
India; Desh Bandhu*

*Indian Youth Population Coali-
tion, India;
K.M. Susai Benjamin*
*International Youth and
Student Movement for the
United Nations (ISMUN),
Argentina; Delmar Blasco*
*Jeunes Science Tunis, Tunisia;
Faycal Ben Hassine Bey*
*Mauritius National Youth Com-
mittee for Environment and
Conservation, Mauritius;
Rajen Awotar*
*National Christian Council of
Kenya, Kenya; Mary Opiyo*
*National Trust for Fiji, Fiji;
Uday Raj*
*Science Education Programme for
Africa (SEPA), Ghana;
Hubert Dyasi*
*World Federation for Democrati-
c Youth (WFDY), Hungary;
Peter Reinhardt*

The ELC staff who attended the Conference were Ms. Bridget Hughes, and Ms Serena Zwangobani - Project Coordinators. Mr Richard Hughes, the Chairman of the ELC Board of Directors and representative of the International Union of Architects, also attended.

2.02 NGO Activities.

Daily meetings were held each morning by the ELC, where the NGOs reviewed Conference documents, were briefed by various invited government and inter-government officials (Appendix B) and planned strategies for input into the Conference proceeds. Valuable assistance was provided by UNEP officials, including Mr Gary Herbertson and Mr Victor Johnson. An excellent rapport was established by the NGOs with many of the speakers which led to continuing dialogue throughout the Conference.

The morning meetings were open to all NGOs and provided a focal point for NGO effort at the Conference, where they otherwise would not have had one.

The NGOs met with many of the national delegations and conveyed NGO concerns about environmental education. Many spoke to delegates representing their own countries and regions about the needs as perceived by the people in their regions. NGOs from the developing world also had great success in conveying their concerns to delegations from the developed countries. Two of the ELC/UNEP NGOs were the only people at the Conference representing their regions, Uday Raj for the Pacific and Senator John Connell for the Caribbean. Seven of the ELC/UNEP sponsored NGOs attending the Conference were the only representatives of their countries : Mauritius, Sri Lanka, Costa Rica, Barbados, Fiji and Argentina.

International NGOs affiliated to UNESCO were invited to make statements to the Conference. Four of these statements were made by ELC/UNEP sponsored representatives. They were :-

Delmar Blasco - ISMUN, Argentina

F. Ben Hassine Bey - Jeunes Sciences Tunisia, Tunisia

Mary Opiyo - Afrolit, Kenya

Peter Reinhardt - WFDY, Hungary

2.03 Publications Produced for the Conference.

(i) *'International Conferences and Getting The Most Out of Them'* by Richard Hughes, Chairman of the Environment Liaison Centre. This four-page document is a guide which was distributed to the ELC/UNEP sponsored NGOs and to other NGOs at the Conference. A copy is attached (Appendix H1).

(ii) *'Summary of Documents Prepared for the Intergovernmental Conference on Environmental Education, Tbilisi'*, prepared by Michael Lee of Nairobi. Mr Lee prepared a summary which focussed on the main Conference documents ENVED 4 to 9. This seven page document provided a brief review of the sections of the voluminous Conference documents of most concern to NGOs. It provided a valuable aid to NGOs at the Conference and was used by some Conference delegates also. The Conference documents were delayed in distribution to Conference delegates and the summary prepared by Mr Lee was most useful under the circumstances. A copy is appended (Appendix H2).

2.04 Conference Recommendations.

As a result of the NGO presence and participation the Conference was sensitized to the important role played by NGOs in environmental education. A number of recommendations were passed concerning NGOs, the most comprehensive of which was the following:

"CONSIDERING the important role of non-governmental organisations and voluntary bodies in the field of environmental education at the local, national, regional and international levels;

STRESSING the desirability of enlarging the opportunity for democratic participation in the formulation and execution of programmes in the field of environmental education;

BEARING in mind that the efficacy of the work of all inter-governmental organisations is enhanced by the activities of non-governmental organisations and voluntary bodies.

RECOMMENDS:

1. to Member States that they should encourage and support non-governmental organisations and voluntary bodies at the local, nat-

ional, regional and sub-regional level and to make the best use of their capabilities and activities;

2. to national governments that they should create and encourage environmental awareness among organisations such as professional teachers' and other non-governmental organisations which deal directly with children and youth, so as to get such organisations involved in the formulation and execution of national education strategies;

3. to non-governmental organisations that they should incorporate environmental education activities into their existing programmes;

4. to UNESCO that it should cooperate closely with non-governmental organisations and support their relevant activities in the field of environmental education.

2.05 Informing NGOs about the Conference and Environmental Education

The sponsored NGO representatives were responsible for publicising the work of the Conference and the recommendations resulting from it which related to NGOs. The extracts from 'Caribbean Conservation News', Penang Consumers Association and 'The Alliance Exchange' (Appendix I) indicate the way NGOs shared this information through their own networks. Some also gave press releases. The most important and long term development from the Conference was that many NGOs, both those whose representatives had been to Tbilisi and others, organised workshops and meetings on environmental education for late 1977 and 1978. The ELC, for the same period of the Follow-Up Phase of this Project, also coordinated the World Environment Day Project and many NGOs have used WED on which to concentrate their environmental education activities. A list of some NGO events serving an environmental education purpose and related to the Conference and/or this Project is given in Appendix J. This list is not complete but rather shows examples of events planned for March to June 1978.

To support NGOs in their development of environmental education activities after the Conference, the ELC published a report on the Conference, '*Report on the Intergovernmental Conference on Environmental Education and the Workshop for Environmental Education Cooperation*' (Appendix H6). This was distributed to at least 300 NGOs. A summary of the Conference recommendations, '*UNESCO/UNEP Intergovernmental Conference on Environmental Education: Recommendations Summarized*', (Appendix H7), was also published and distributed to the network.

3.00 The NGO Workshop for Environmental Education Cooperation.

The Workshop was held in Geneva, Switzerland, from 28-30 October 1977. The specific purposes were to :

- (i) Identify and discuss key issues from the Tbilisi Conference and consider ideas on how NGOs can be involved constructively in the Conference Follow-Up Phase.
- (ii) Develop an on-going NGO network for environmental education. To facilitate sustained contact, information exchange, and international coordination where necessary.

3.01 Invitations and Advance Publicity

To gain NGO involvement in the Workshop, invitations were sent to 1200 non-governmental organisations to participate in the Workshop. A copy of the invitation brochure is enclosed (Appendix C). Many

groups expressed an interest in attending but did not have adequate time to identify, prepare and send a representative or did not have adequate funds.

Prior to the Workshop, a press release about the Workshop and Conference was distributed to 120 media contacts around the world. A copy of the release is attached (Appendix D) Also attached are clippings from various publications reporting the event (Appendix I).

3.02 Workshop Participants.

Sixty-two participants attended the Workshop. A list is appended (Appendix E). The attendants included four representatives from United Nations Agencies. They were:

Mr Gary Herbertson, UNEP NGO Liaison Officer;

Mr Victor Johnson, Chief of the UNEP Environmental Education and Training Unit;

Mr H.Z. Evan, International Labour Organisation;

Mr Peter Kuentler, Geneva UN Youth Liaison Officer.

The 17 developing country NGO representatives sponsored to the Tbilisi Conference also attended the Workshop.

The Table below shows a geographical breakdown by type of NGO for the 51 NGOs represented at the Workshop.

TABLE 1

NGOs represented at the Workshop, by Region			
Regions	International or Regional NGOs	National NGOs	TOTAL
Africa	4	3	7
Asia & Indian Sub-Continent	2	6	8
Caribbean	1	0	1
Europe	18	8	26
Latin America	1	1	2
Middle East	0	1	1
North America	1	4	5
Pacific	0	1	1
	27	24	51
OTHER: UNEP and ILO			

3.03 Workshop Agenda and Timetable.

The Workshop was designed to be flexible regarding agenda, style and topics to be discussed. The purpose was to give participating NGOs a major part in the decisions on how the Workshop should be run. Several meetings were held among the NGOs in Tbilisi to discuss these items. A draft timetable and agenda were set and the final working groups decided on in Geneva were on the following topics:

- a. Environmental Education and NGO Strategy;
- b. Non-formal Environmental Education;
- c. Formal and Professional Environmental Education;
- d. NGO Inter-communication and the Use of Mass Media in Environmental Education;
- e. Atomic energy.

Appended is the timetable of the Workshop (Appendix L).

3.04 Information Resources at the Workshop

Papers Prepared by Participants. Each of the sponsored NGO participants was required to prepare a paper on NGOs and Environmental Education in their region. These papers along with other NGO contributions numbered 35. A list of the papers with abstracts is appended (Appendix F).

'An Overview of NGO Environmental Education Activities', prepared by Melinda Khan and Dorothy Myers for the ELC. This paper, used as the main source of information, the ELC's records of 1,440 NGOs all over the world. A copy is appended (Appendix H3).

Participants were each given a folder upon registration at the Workshop. The folders contained the following :-

- . a copy of each paper prepared by the participants;
- . 'An Overview of NGO Environmental Education Activities';
- . agendas for each Working Group;
- . name-tag identification;
- . sticker with Workshop motif.

A display area in the main meeting room of the Workshop provided the opportunity for the participants and interested NGOs to display and distribute materials about their activities. Displays were numerous and greatly varied in areas of interest, language and countries. Areas of interest ranged from youth activities, such as those of the World Federation of Democratic Youth and the World Girl Guides and Girl Scouts, to pollution control posters and hand-outs from the Environmental Protection Institute of Korea. There were displays from African, Asian, European and Latin American countries, in their national languages; and national NGOs displayed material from countries in every region of the world.

Opportunities were provided for brief talks, slide-shows and films to be presented to participants to inform them of the activities of various NGOs. Although there was little formal Workshop time for participants to inform others about their particular NGOs, observations and feedback revealed that considerable sharing took place informally among the participants. Two slide-shows were given and a number of talks. Free information material was given out on a number of NGOs also. The exchange of information by the participants on their NGO activities was one of the most fruitful parts of the Workshop and formed the basis of the network of cooperation in environmental education we had hoped to achieve.

3.05 Guest Speakers.

Two speakers addressed the Workshop. The keynote NGO speaker of the first day was Dr Liberty Mhlanga, a lecturer with the Environment Training Programme (ENDA), and consultant to the ELC. His topic was "*Environmental Education in the Context of Development - an ENDA Perspective*", (Appendix H4). Dr Mhlanga gave an outline of the environmental approach used by ENDA in developing countries which concentrates on rural and urban district eco-cultures, small sub-cultures of people affected by essential modernisation of a country, but not often able to benefit from these processes. The environmental approach involves the people who are affected and they work out ways to improve their lives and take action for themselves.

The Intergovernmental keynote speaker was Mr Victor Johnson, Chief of the Environmental Education and Training Unit, UNEP. He

reported on the Tbilisi Conference and the final recommendations made there. His topic was " *Challenges and Opportunities of the Tbilisi Intergovernmental Conference on Environmental Education* " , and is appended (Appendix H5).

3.06 Workshop Resolution and Recommendations

The Workshop participants passed a resolution and recommendations concerning the following topics:

- . Formation of a central coordinating body to develop NGO activities in environmental education;
- . Development of a global communication network in environmental education;
- . Establishment of an international Steering Committee to advise on the carrying out of the remainder of the project;
- . Non-formal Education;
- . Formal and professional education;
- . Communications and the mass media.

For the full text of these see Appendix G. The recommendations concerned NGOs specifically but were in agreement with the government recommendations made at Tbilisi.

3.07 NGO Environmental Education Steering Committee

The Steering Committee was chosen by the participants to guide the ELC in drawing up a project document to fund the suggested central coordinating body and to decide on that body's activities. The following were the members of the Steering Committee:

Faycal BEN HASSINE BEY, Jeunes Sciences Tunis, Tunisia
 Delmar BLASCO, International Youth and Student Movement of the UN (ISMUN), Argentina
 Adelaida CHAVERRI, Costa Rican Assoc. for the Conservation of Nature (ASCONA), Costa Rica
 Irene FERNANDEZ, Consumers Association of Penang, Malaysia
 Dayanath JAYASURIYA, Family Planning Association, Sri Lanka

Amando KAPAUAN, Bureau of Asian Affairs, Philippines
 Ron TEN KORTENAAR, Institute for Environmental Education Netherlands
 Liberty MHLANGA, Environment Training Programme (ENDA), Senegal
 Cyril RITCHIE, International Schools Association, Switzerland
 Birgith SLOTH, International Youth Federation for Environmental Studies and Conservation, Denmark
 ELC - one representative

4.00 Follow-up Phase of the Project, after the Conference and Workshop

The Follow-up Phase of the Project was to serve 3 main functions :

- (i) Information. Information sharing on environmental education.
- (ii) Communication. Developing a communication network among NGOs active in environmental education.
- (iii) Future Planning. Future support of NGO environmental education activities through the production of a project proposal to further NGO cooperation in environmental education after this project is finished.

4.01 Information: Information Sharing on Environmental Education.

- (a) Through Personal Contact. The seventeen NGO representatives sponsored through the ELC/UNEP Project to attend the Tbilisi Conference and the NGO Workshop were key informants on environmental education for their organisations and in their regions. Those chosen came from NGOs which have wide network contacts of their own, apart from those which were gained through this Project. These representatives were able to share information through the press, local NGO periodicals, seminars and workshops in which they have personally participated and through correspondence with others in their regions.

Mr Delmar Blasco from Argentina, was one of the sponsored ELC/UNEP representatives who went to Tbilisi and he has since joined the ELC staff to work on the World Environment Day Project (UNEP FP/0303-77-07). Mr Blasco and the two Project Coordinators for this Project - Bridget Hughes and Serena Zwangobani, have all furthered their personal contacts with some of the same NGOs whose representatives they worked with overseas during this Project. This contact has made possible further sharing of ideas on the progress of environmental education activities and served to reinforce the motivation to continue to improve these efforts. From all these contacts the ELC received practical advice which the Project Coordinators were able to use during the Follow-up Phase of the Project. Personal contact was made by ELC staff with the following NGOs and their representatives to gain advice on this Project:

Caribbean Conservation Association - Jill Sheppard, Costa Rican Association for the Conservation of Nature - Adelaida Chaverri, Environment Training Programme for West Africa - Liberty Mhlanga, National Christian Council of Kenya - Mary Opiyo, Science Education Programme for Africa - Hubert Dyasi.

In most cases these people visited us, through their travels on business, an indication of their roles as NGO representatives in their regions and internationally. However, Mr Blasco has been able to visit some contacts as part of the World Environment Day Project.

- (b) Through Postal Contact. It was most important to inform NGOs interested in environmental education of the Conference and Workshop. For this reason a report entitled *'Report on the Intergovernmental Conference on Environmental Education and the Workshop for Environmental Education Cooperation'*, was sent out to those we had in the network and all subscribers to the ELC (Appendix H6).

Widely distributed also was a summary of the recommendations which came from the Tbilisi Conference. This summary was provided as a temporary measure while awaiting the UNESCO/UNEP report on the Conference which was published later, in mid-1978. The report entitled *'UNESCO/UNEP Intergovernmental Conference on Environmental Education. Recommendations Summarized'* is appended (Appendix H7).

Another means for sharing information on environmental education as carried out by NGOs around the world was a newsletter *'EE Switchboard'*. Three issues of this were published during the course of the Follow-up Phase of the Project. Copies of *'EE Switchboard'* are appended (App.H11,12,13), and will be further discussed in 4.02 below.

- (c) Other. Both through personal contact and correspondence it has become clear that many environmental education activities of NGOs are limited because of lack of funds to carry them out. Although fund raising in itself is not an environmental activity we thought it important enough, in support of the Project purposes, to give practical assistance with this. This assistance was in the form of a printed and illustrated article entitled *'Obtaining Money From a Funding Agency - How to Write and Ask'*.

This article, which is appended (Appendix H8), outlined how to write a project proposal for a funding agency. It was designed to help NGO representatives who would be writing such proposals whether for activities requiring \$50 or \$10,000. The article has been distributed throughout the network and will be sent to NGOs who write to the ELC needing money.

4.02 Communication: Developing a Communication Network Among NGOs Active in Environmental Education.

The network of NGOs has expanded rapidly during the course of the Project, particularly in the developing countries. The core with which we have had most communication is of course the NGOs whose representatives we sponsored to attend the Conference and Workshop. After these two events we had expanded the network to include most of those NGOs who were interested enough to send representatives to either or both events. It was these 50-60 NGOs that we first concentrated our communication efforts and to whom we sent the two issues of a newsletter called '*Environmental Education Cooperation News*'. This news mostly concerned ideas which had been raised at the Conference and Workshop and with which these NGOs would be familiar and able to share ideas on. The two issues of this newsletter are appended (Appendix H 9 and 10).

By January 1978, only a bare two months after the Conference and Workshop, we had received so much correspondence from NGOs who had been unable for financial reasons to attend the Conference or Workshop that it was clear that we should actively expand the network and make the newsletter of much broader interest. We changed the name to "EE Switchboard" and included a wide variety of news which might interest NGOs active in environmental education (App.H 11,12,13). In accordance with the purposes of this Project (refer to 1.02 (iii)), the newsletter provided the opportunity to support the development of environmental education at every level; to encourage those NGO activities which lead to research and investigation providing solutions to problems in this field; and, to support the communication attempts of NGOs through meetings, seminars etc. All these kind of events were reported in 'EE Switchboard'.

The newsletter concentrated on developing country NGO activities but also included information from developed countries. Each issue had a list of addresses of NGOs or individuals who had expressed interest in the network. In the case of each article or item of information, an address was provided

to allow direct contact between the reader and the NGO mentioned in print. Serving an information purpose were articles on such topics as sharing traditional technology, using radio in rural development, and NGO projects funded in developing countries. Also provided were reviews of other periodicals and books. In these ways 'EE Switchboard' was able to give information on environmental education as well as connecting NGOs with one another by the mutual sharing of experiences through this medium.

4.03 Future Planning

The Workshop participants saw the development of environmental education as being most important at the regional, rather than at the international level. The project coordinators concurred with this view. It was decided that the best way to encourage this was to support the regional organization of networks through one central (as far as communication is concerned) NGO in each region. It has since been made clear that developed countries have already quite adequate networks among themselves and do not require any special encouragement to develop them for environmental education; and also, that among developing countries geographical regions are too large and smaller more convenient regions would be better. So far the following NGOs seem the most appropriate and responsive for the various geographical areas:

- . Caribbean - *Caribbean Conservation Association* ; .
- . Far East and South-East Asia - *Penang Consumers Association* ;
- . Latin America - *Cost Rican Association for the Conservation of Nature* ;
- . India - *Indian Group, International Youth Federation for Environmental Studies and Conservation.*

The above NGOs will develop their own communication networks in environmental education to serve wider interests in this field throughout their sub-regions. Appended are several letters concerning the possibilities and actions taken in this respect (Appendix K).

For the future of environmental education in developing countries it is essential that NGOs organize their activities within sub-regions then regions. Through this Project sub-regional and regional organization of environmental education activities was stated as a clear need by NGOs and discussed through personal contact, correspondence and 'EE Switchboard'. Work among NGOs towards this end would however, require funds which were not foreseen when drawing up this Project. It has not been possible to do more, therefore, than to encourage the NGO initiatives taken to this end and to

prepare a further project proposal (referred to in 5.00 and appended - Appendix M) which, if funded, would make possible more practical support to this end.

5.00 Project Proposal for Future Support of NGO Environmental Education Activities.

The recommendations from the NGO 'Workshop for Environmental Education Cooperation' held in Geneva, stressed the need for a central organization which would aid the development of environmental education in the regions. This concern was especially for regions with little material resources - developing country regions and for environmental education as it relates to development. Recommendation 1.2 from the Workshop for Environmental Education Cooperation (Appendix G) states :

' There is a need for a central organisation to facilitate regional work in Environmental Education.

The principal aim of this central organisation should be to encourage development of Environmental Education at the regional level...

The work of the new body should pay particular attention to the patterns of existing environmental education in each of the world regions and to facilitate inter-change between them, noting particularly the connection between environment and development.'

In consultation with the Steering Committee it was agreed that, at least for the duration of this Project, the central organisation would be the Environment Liaison Centre (ELC). The ELC would be responsible for producing a Project Proposal to continue the work of this Project after April 1978 and encourage the regional development of environmental education through the work of a central organisation. The Steering Committee were to advise the Project Coordinator concerned with the development of the Project Proposal.

5.01 Development of the Project Proposal

It proved very difficult to work with the Steering Committee who were dispersed all over the world and could be contacted only by letter. The Steering Committee had foreseen this communication difficulty and had suggested a meeting of the Steering Committee be held near the end of the Project to make final decisions on the Project Proposal and decide which funding agencies to approach. This meeting was not possible only because there was no allowance for it in the budget of this Project and without considerable funds for airfares, per diems and facilities a meeting was out of the question. An attempt was

made to raise funds for the meeting separately from the funds of this Project, however this was not found possible.

Various Steering Committee Members, & other NGO and Intergovernmental representatives, did communicate with the Project Coordinators giving advice, both by letter and in person. See Appendix K for several letters concerned with this. Those NGOs most concerned with this were:

Science Education Programme for Africa

Environment Training Programme

Caribbean Conservation Association

Penang Consumers Association

International Institute for Environment and Development

Town and Country Planning Association

Costa Rican Association for the Conservation of Nature

Afrolit

Representatives of UNEP, particularly Victor Johnson, Chief, Environmental Education and Training Unit and Gary Herbertson, NGO Liaison Officer, also provided valuable advice.

5.02 The Project Proposal

The Environment Liaison Centre is best able to serve the interests of NGOs in environmental education through continuing to provide information and communication support. Having established the need to share environmental education information between NGOs, through a periodical, we feel this should be continued.

Suggestions for the kind of articles which could be helpful, particularly for younger members of NGOs, are included in the project proposal in Appendix K.

The Environment Liaison Centre is attempting to find funds to continue the periodical 'EE Switchboard', and, in relation to this, to establish a resource centre to serve the environmental education needs in developing country NGOs.

6.00 SUMMARY

The ELC/UNEP Project was created to ensure NGO participation in the current development of environmental education internationally. Although it is usual for NGOs to observe UN Conferences, it became clear shortly before the 'Intergovernmental Conference of Environmental Education' that there would be little NGO attendance, this was especially so of NGOs from developing countries. The ELC, in cooperation with UNEP, therefore drew up this project focussing on participation of developing country NGOs in the Conference, followed by activities to develop cooperation among NGOs in environmental education.

The purposes of this Project, as stated in section 1.01 of this report, have been fulfilled. Although the time frame for the Project has been difficult, starting on the 1st August 1977 and finishing only 9 months later on 30 April 1978, developing country NGO representatives were enabled to attend the 'Intergovernmental Conference on Environmental Education' and the Geneva 'Workshop for Environmental Education Cooperation'; and a communication and information network in environmental education was set up among 350 NGOs. Provision to ensure continuation of this environmental education contact between NGOs, especially among developing country NGOs, has been made through the development of a Project Proposal for an NGO periodical on environmental education.

Environmental education at all levels has been supported by concrete information on major events in environmental education and NGO activities in this field. The emphasis has been on developing country NGOs and those working in non-formal education. There is at present no resource and news reporting system among NGOs on environmental education. There are considerable numbers of periodicals on more technical areas of environmental studies but this Project identified the need for sharing environmental education specifically, among NGOs. It was demonstrated that it is possible and useful to provide resource information and news to NGOs with a periodical from a central source, in this case the ELC.

In recognition of the need to develop environmental education on a sub-regional and regional basis, NGOs have been encouraged to identify one NGO within each sub-region which has the expertise, facilities and initiative to serve as a focal point for this in each sub-region. This Project did not have the funds to do more than share this idea and leave it to NGOs to take the initiative, which they have done. In all areas except West Asia there is now an NGO prepared to serve as a focal point in environmental education. It would require

little in funds and information supply to encourage this exciting sub-regional development further and the ELC is in a perfect position to continue to support this development.

APPENDIX A

STAFF AND CONSULTANTS FOR THE PROJECT

STAFF AND CONSULTANTS FOR THE PROJECT

- i) The ELC programme coordinators were Bridget Hughes and Serena Zwangobani.
Bridget Hughes was a Chemical physics graduate from the University of Edinburgh who has worked in education and on the ELC Profile Survey in Kenya.

Serena Zwangobani was a Social Science and Education graduate from the Australian National University with teaching and documentation experience in developing countries and experience in education policy in Australia.

Both Ms. Hughes and Ms. Zwangobani have had extensive experience as active members of non-governmental organisations prior to being hired to the programme.

- ii) Advisors to the staff included the then ELC Manager, G. Matheson, and ELC Chairman, Richard Hughes. Special consultants to the programme included Dr. Liberty Mhlanga and Richard Sandbrook.

Dr. Liberty Mhlanga is currently a lecturer in the Environment Training Programme (ENDA) Senegal. He has post-graduate qualifications and extensive experience in environmental education. His experience in education prior to his current position has involved teaching at both tertiary and secondary levels in Africa and North America. He has also served as an environmental consultant to various UN bodies.

Richard Sandbrook is a member of the International Institute for Environment and Development, London, England, and has had extensive experience with issues concerning environment and development in the developing world.

- iii) Claudine Richard and Cyril Ritchie from the International Schools Association in Geneva were contracted to prepare facilities and accommodation for the Environmental Education Workshop held in Geneva.

- iv) Richard Hughes prepared a three-page document for NGOs, 'International Conferences and Getting the Most Out of Them', a guide distributed to the ELC/UNEP sponsored NGOs and to other NGOs at the Conference. A copy is appended (Appendix H).

Michael Lee of Nairobi, was contracted to prepare a 'Summary of Reports Prepared for the Intergovernmental Conference on Environmental Education, Tbilisi', focussing on ENVED - 4 to 9. This seven-page document provided a brief review of the sections of the voluminous conference documents of most interest to NGOs. It provided a valuable aid to NGOs at the Conference. The summary was also used by Conference delegates. A copy is appended (Appendix H).

Melinda Khan and Dorothy Myers were contracted to prepare a paper entitled 'An Overview of NGO Environmental Education Activities'. A copy is appended (Appendix H).

GOVERNMENTAL AND INTERGOVERNMENTAL OFFICIALS WHO GAVE

BRIEFINGS TO NGOS AT THE TBILISI CONFERENCE

Governmental and Intergovernmental officials who gave briefings to the NGOs at the Tbilisi Conference were:

- Mr. Dwight D. Darland, National Education Association, U.S.A.
- Mr. Thomas L. Kimball, Executive Vice-President, National Wildlife Federation, Washington DC, U.S.A.
- Mr. Marshall E. Purnell, American Institute of Architects, Washington DC, U.S.A.
- Mr. H.Z. Evan, Working Conditions and Environment Department, International Labour Organisation
- Mr. Romero Lozano, Environmental Education, UNESCO, Paris, France.
- Mr. Victor Johnson, Chief, Environment Education and Training Unit, UNEP, Nairobi, Kenya.

BROCHURE INVITING NGOS TO THE

NGO WORKSHOP FOR ENVIRONMENTAL EDUCATION COOPERATION

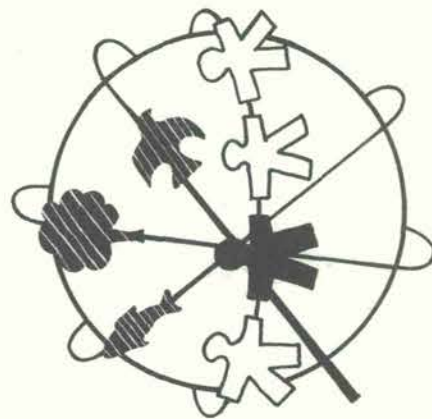
The goal of Environmental Education is to develop informed attitudes and encourage appropriate actions that will ensure a constant improvement of the quality of the environment and of life itself.

The aim of the Workshop is to build an active, on-going network of NGOs involved in Environmental Education, with regional and inter-regional connections.

The participants at the Workshop will be activators in their regions, able to widen the scope of the network beyond the Workshop.

The focus of the Workshop will be NGO resources (ideas, techniques, expertise and material resources) and strategies (goals, plans and actions) which have regional and inter-regional implications.

The success of the network will depend on the quality of communication between NGOs of different regions of the World. Attending the Workshop there will be at least 20 NGO representatives, sponsored by the ELC and knowledgeable in Environmental Education, coming from Developing Countries and from Eastern Europe. They will ensure that there will be adequate input from these regions.



WORKSHOP ON ENVIRONMENTAL EDUCATION CO-OPERATION

Provisional Workshop Programme

Thursday, 27 October 1977	
5.00 pm	Registration. Distribution of NGO Report on Tbilisi Conference
7.00 pm	Supper
Friday, 28 October 1977	
9.00 am	Registration. Distribution of NGO Report on Tbilisi Conference
10.00 am	NGO Speaker, followed by discussion and questions
11.45 am	(Inter)-government Speaker, followed by discussion and questions
1.00 pm	Lunch
2.30 pm	Working Group A — Talks by sponsored NGO representatives: identification of resources and strategies (Subgroups by environmental interest)
5.00 pm	Plenary — Working Group A — Reports from environmental interest subgroups
Saturday, 29 October 1977	
9.00 am	Working Group B1 Evaluation of resources: ● regionally ● inter-regionally (Subgroups by educational approach, e.g. primary, secondary, informal, media specialists, etc.)
11.15 am	Plenary — Working Group B1 Reports on resources
1.00 pm	Lunch
2.30 pm	Working Group B1 Arrangements for sharing resources
5.00 pm	Plenary — Working Groups B1 and B2 — Reports and recommendations
7.00 pm	Entertainment
Sunday, 30 October 1977	
10.30 am	Working Group C — Plans for future resource co-operation and application of strategies (Subgroups by geographical region)
1.00 pm	Lunch
2.30 pm	Plenary — Working Group C Report from each region. Inter-regional discussion. Recommendations for network.
5.00 pm	Conference summing up.

If you would like to participate, but are unable to attend the Workshop, send us information on your organisation's aims, activities, difficulties, resources, achievements
 — either in display form, not more than 2m x 2m (illustrations would be appreciated)
 — or as a paper of not more than 2000 words
 — or as an audio-visual presentation (if slides, not more than 20, please).

There may be funds available to help with the postage from Developing Countries. We will acknowledge receipt of your presentation and return it to you after the Workshop, but we cannot be responsible for loss or damage.

REGISTRATION SLIP

Name of NGO

Address

Name(s) of representative(s)

Please answer Yes/No as appropriate

I am able to attend the Workshop

I am unable to attend the Workshop but would like to send a presentation

a) I am able to present a paper

b) I am able to present a display

c) I have an audio-visual display

Title of a), b) or c)

Please return this slip to the ELC by 1 October. If you send it after this date, return it to:
 Claudine Richard, International Schools Association, Palais Wilson 20, 1121 Geneva 14, Switzerland.



From:
Environment Liaison Centre,
P O Box 72461,
Nairobi,
KENYA

The ENVIRONMENT LIAISON CENTRE was established in 1975 by an informal coalition of non-governmental organisations (NGOs). The Centre is based in Nairobi so that it can work effectively with the United Nations Environment Programme (UNEP). The Centre is independent of UNEP. It is funded by subscriptions, project-funding and donations.

The Centre facilitates the flow of information from NGOs to where it is most needed within UNEP.

The Centre links NGOs throughout the world, acting as a switchboard between environmentalists.

The Centre has conducted a global survey of environmental activities of NGOs.

The Centre has set up a referral service, based on the survey. NGOs can request contact lists or referrals, by country of environmental concern.

The Centre publishes the Centre Report, an English-language newsletter for subscribers, which supplies information on UNEP and on NGO activities.

The Centre undertakes special projects such as the organisation of this Workshop to set up an International Network concerned with Environmental Education.

If you are interested in the Centre and its activities, please write to:

The Environment Centre,
P O Box 72461,
Nairobi,
Kenya.

You are invited to attend an
International Workshop in Environmental Education
for
Non-governmental Organisations

"The Workshop for Environmental Education Co-operation"

This is sponsored by the ENVIRONMENT LIAISON CENTRE (ELC) with funding from the United Nations Environment Programme (UNEP). The Workshop will be held from 28-30 October 1977, in Geneva, Switzerland.

The Workshop is in the English language.

It is designed to follow immediately after the Intergovernmental Conference in Environmental Education, organised by UNESCO, with the co-operation and financial support of UNEP, to be held from 14-26 October 1977, in Tbilisi, USSR.

Some of the participants at the ELC Workshop will have attended the Tbilisi Conference as observers. The key issues at the Conference will be discussed at the Workshop.

**TRAVELLERS COMING
FROM OUTSIDE SWITZERLAND**

- You will need
- Valid passport
 - Check with the Swiss Embassy or Consulate in your country as to whether you require a visa.
- Currency
- Swiss Franc (SwFr) divided into 100 centimes
 - 1 SwFr = US \$0.42 (approx)

Accommodation

The rates for a single room with private bath in one of the de luxe class hotels would range between SwFr 80-120; for a double room with bath between SwFr 90-160. In first class hotels a single with bath costs between SwFr 45-60; a double with bath between SwFr 70-100. A single room with bath in tourist class establishments costs from SwFr 40-50; a double room between SwFr 60-85.

Pension prices range from SwFr 15 upwards (for full board you must book a minimum stay of three days).

Hostel accommodation: dormitories and single rooms start from about SwFr 12 for bed and breakfast.

The Passenger Welcome Service in the airport can advise on cost of food, but dinner or lunch in a first class restaurant will cost between SwFr 20-30. Breakfast—continental style of croissant rolls with butter, marmalade or jam, and coffee, taken outside the hotel SwFr 5.

Language

- French, but English/German/Italian often understood.

Voltage

- 220 AC.

Climate and Clothing

- Average October temperature range 58° F/15° C—37° F/3° C.

- Clothing should include woollens and shoes which completely cover the foot. A raincoat is advisable. People coming from tropical climates are likely to find it very cold.

We do not have the facilities to provide accommodation, so we cannot be responsible for your accommodation or travel, but if you need any advice contact:

Claudine Richard,
International Schools Association,
Palais Wilson 20,
1121 Geneva 14,
Switzerland

PRESS RELEASES CONCERNING THE

INTERGOVERNMENTAL CONFERENCE ON ENVIRONMENTAL EDUCATION

AND

THE NGO WORKSHOP FOR ENVIRONMENTAL EDUCATION COOPERATION

Centro de Enlace sobre el Medio Ambiente
P.O. Box 72461
Nairobi, Kenia

Centre de Liaison pour l'Environnement
P.O. Box 72461
Nairobi, Kenya

(52?)
Environment Liaison Centre,
P.O. Box 72461,
Nairobi, Kenya

Teléfono: 24770

Téléphone: 24770

Telephone: Nairobi 24770

PRESS RELEASE

For Immediate Release

October 12, 1977

Contact: Gary Gallon
Tel: 24770

Richard Hughes
UNEP, UNESCO
Secretariat
Prospekt Rustaveli
Tbilisi, USSR

ELC SENDS 20 NGOs
TO UNESCO CONFERENCE
ON ENVIRONMENTAL EDUCATION

The Environment Liaison Centre has sent 19 representatives from developing world non-governmental organisations to the UNESCO Conference on Environmental Education. The Conference will be held October 14-26, 1977 in Tbilisi, USSR. It will be one of the largest conferences ever held on environmental education, with government and non-government representatives attending from all over the world.

The ELC will also sponsor a follow-up workshop on environmental education in Geneva, Switzerland October 28-30, for NGOs in Europe and elsewhere. The 19 representatives from the developing world are also being sponsored to attend the workshop.

The entire ELC programme was made possible by a \$120,000 grant from the United Nations Environment Programme in Nairobi. The purpose of the ELC programme is to encourage and promote the development of environmental education in school curricula and to broaden the knowledge of important educators in developing nations on the state-of-the-art in Environmental education. The sponsored NGO representatives from the developing nations will present papers on current environmental education programmes in their areas.

The ELC Environmental Education Workshop will be held at the Hotel Le Grenil, 7 av. Sainte-Clothilde 1205, Geneva. The organiser is Claudine Richard with the International Schools Association. She can be contacted at Tel. 022 28 03 55. There is no registration fee for the workshop.

The attached is a list of the NGOs sponsored by the Environment Liaison Centre to attend the UNESCO Conference and the ELC Workshop.



Centro de Enlace sobre el Medio Ambiente
P.O. Box 72461
Nairobi, Kenia

Centre de Liaison pour l'Environnement
P.O. Box 72461
Nairobi, Kenya

Environment Liaison Centre,
P.O. Box 72461,
Nairobi, Kenya

Teléfono: 24770

Téléphone: 24770

Telephone: Nairobi 24770

REPRESENTATIVES FROM
NON-GOVERNMENTAL ORGANISATIONS
SPONSORED TO THE
UNESCO CONFERENCE AND THE ELC WORKSHOP
ON
ENVIRONMENTAL EDUCATION

NAME	ORGANISATION	COUNTRY
Rajen Awotar	Mauritius National Youth Committee for Environment and Conservation	Mauritius
Desh Bandhu	Indian Environment Society	India
Delmar Blasco	ISMUN, International Youth and Student Movement for the United Nations	Argentina
Susai Benjamin	Indian Youth Population Coalition	India
Adelaida Chaverri	Escuela Ciencias Ambientales	Costa Rica
John Connell	Caribbean Conservation Association	Barbados
Ben Hassine Bey	Jeunes Sciences Tunis	Tunisia
Dr. Herbert Dyasi	Science Education Programme for Africa	Ghana
Irene Fernandez	Consumers Association of Renang	Malaysia
Jayasuiriya	International Planned Parenthood, Indian Ocean Region	Sri Lanka
Amando Kapauan	Bureau of Asian Affairs	Philippines
Suheyl Kirack	Mimarlar Odasi	Turkey
Liberty Mhlanga	Environment Liaison Centre	Senegal
Viroj Na Bangchang	Asian Environmental Council	Thailand
Mary Opiyo	National Christian Council of Kenya	Kenya



NAME	ORGANISATION	COUNTRY
Uday Raj	National Trust for Fiji	Fiji
Sakey Ronuc	Yanpela Didiman	Papua New Guinea
Adres Simonyi	World Federation of Democratic Youth	Hungary
Moffat Sibanda	Kgatleng Development Board	Botswana

Centro de Enlace sobre el Medio Ambiente
P.O. Box 72461
Nairobi, Kenya

Centre de Liaison pour l'Environnement
P.O. Box 72461
Nairobi, Kenya

Environment Liaison Centre,
P.O. Box 72461,
Nairobi, Kenya

Teléfono: 24770

Téléphone: 24770

Telephone: Nairobi 24770

File: 8.25024
October 5, 1977

Dear Friends,

Coming to the Intergovernmental Conference on Environment Education in Tbilisi will be twenty Non-Governmental (NGO) Representatives from organisations active in Environment Education in the Developing World.

Each NGO Representative has been chosen for sponsorship by the Environment Liaison Centre because of a proved record as an active environmental educator belonging to a NGO with wide community participation and/or influence.

Below are examples of two of those sponsored:

Mrs. Mary Opiyo represents the National Christian Council of Kenya. She has had twenty-one years of experience in education both in rural and urban Kenya, including formal primary education and non-formal adult education. Her present position is head of the Adult Literacy Department of her organisation in which capacity she has extensive involvement with adults, mainly in rural Kenya, and prepares literature in a number of local languages as well as the national language, Kiswahili. The literature prepared is a direct reflection of the immediate needs of the rural people. So that as they learn to read they receive a basic education in such areas as health, family planning, soil erosion and chicken farming.

The special character of NGOs in that they often have very good communication with various sectors of the mass of the people, is ably illustrated by Mrs. Opiyo. In her case, the National Christian Council of Kenya has members throughout Kenya - wherever there is a group of adults who make a request for literacy classes which cannot be met by the Government, Mrs. Opiyo visits them to see how this can be organised.

Dr. Amando Kapauan, from the Bureau of Asian Affairs, in Manila, Philippines, is developing a university course in Environment Management. He has been conducting university courses in environmental pollution for chemists, and on land use for the Bureau of Lands. He is working to introduce environmental topics into university science courses, particularly for chemists. Dr. Kapauan has organised informal workshops and seminars for students on such topics as land use, environmental pollution and environmental chemistry.

Mrs. Opiyo and Dr. Kapauan are just two of the twenty NGO representatives coming with the Environment Liaison Centre, the others come from such wide distances and environments as Dr. Uday



October 5, 1977

Raj from Fiji in the Pacific, to Dr. Herbert Dyasi of Ghana, to Mr. Delmar Blasco of Argentina. The backgrounds and experiences of the representatives differ widely but they all are knowledgeable in Environmental Education from Mr. Awotar of the Mauritius Youth Committee for Environment and Conservation Association.

We hope your newspaper will be covering the Conference and we look forward to meeting you.

Yours truly,

Bridget Hughes

Serena Zwangobani

Bridget Hughes

Serena Zwangobani

Environmental Education Project Coordinators

(ADVERTISEMENT)

Non-Government Organizations! You are invited to send key representatives, knowledgeable in Environmental Education, to the international 'Workshop on Environmental Education Cooperation' to be held in Geneva, 28-30 October 1977.

The Environment Liaison Centre offers you an opportunity to get to know your counter-parts in Environmental Education all over the world. To ensure Third World and Eastern European participation we have sponsored 20 representatives of NGOs from those areas to actively participate in the Workshop.

All aspects of Environmental Education which have regional and inter-regional implications will be discussed with the object of forming an international NGO network of Environmental Educationalists.

Further details can be obtained from the Environment Liaison Centre - or.....Geneva.

.....
PARTICIPANTS AT THE NGO WORKSHOP FOR ENVIRONMENTAL EDUCATION WORKSHOP



NGO WORKSHOP FOR ENVIRONMENTAL

EDUCATION COOPERATION

Geneva, 28 - 30 October, 1977

GENEVA
P.O. Box 72461,
Nairobi, Kenya.
TEL: Nairobi 24770

LIST OF PARTICIPANTS

Afrolit Society,
P.O. Box 72511,
NAIROBI,
Kenya.

Mary Opiyo

Mary Opiyo

Agricultural Alternatives Development
Program, Dept. of Environmental
Planning and Management, University of
California at Davis, Davis,
California, USA 95616. Dennis Josephs

Dennis Josephs

ASCONA (Costa Rican Association for
the Conservation of Nature),
School of Environmental Sciences,
Universidad Nacional,
HEREDIA,
Costa Rica, C. America.

Adelaida Chaverri

Tel: 374151

Adelaida Chaverri

Amt fur gesamtstadtische
kirchliche Aufgaben,
Postfach 20,
CH-3000 BERNE 23,
Switzerland.

Eduard Wildboiz

Eduard Wildboiz

Asian Environment Council,
1787-9 New Petchburi Road,
BANGKOK,
Thailand.

Viroj na Bangchang

Tel: 251-2426

Viroj na Bangchang

Bureau of Asian Affairs,
P.O. Box 154,
MANILA,
Philippines.

Amando Kapauan

Tel: 998721

Cable: ATENEODE MANILA

Amando Kapauan

Caribbean Conservation Association,
Savannah Lodge,
The Garrison,
ST MICHAEL,
Barbados.

John Connell

Tel: 65373

John Connell

Centre for Environmental Intern Programme,
P.O. Box 119,
LINCOLN,
Mass. 01773,
U.S.A.

John R. Cook, Jr.

John R. Cook, Jr.

Tel: 617-259-9500

Centre d'Etudes Industrielles,
Chemin de Conches,
231 CONCHES-GENEVA,
Switzerland

Mike Royston

V.K. Jolly; A.de Koning;

Mike Royston

Tel: 022-471133

Cable: MANEDUCA

Telex: 27 452

Combat pour l'Homme,
7 rue Boucicaut,
75015 PARIS,
France.

Georges Krassovsky

Georges Krassovsky

The Conservation Trust,
246 London Road, Earley,
READING,
Berks. RG6 1AJ,
U.K.

Peter Berry

Peter Berry

Tel: 0734-663650

Consumers Assoc. of Penang,
21-C Codrington Ave.,
PENANG,
Malaysia

Irene Fernandez

Irene Fernandez

Tel: 63516/20361

Committee for Science and Technology
in Developing Countries,
Faculty of Agriculture,
University of Malaya,
Pantai Valley, Kuala Lumpur,
Malaysia

Prof. F. Kalpage

F.S.C.P. Kalpage

Tel: 53484

Cable: FACULTI AGRICULTURE UNIVSEL
MALAYSIA

Environment Liaison Centre,
P.O. Box 72461,
NAIROBI,
Kenya

B. Hughes/S. Zwangobani

Bridget Hughes; Richard Hughes;

Serena Zwangobani

Tel: 24770

Environment Training Programme (ENDA),
P.O. Box 3370,
DAKAR,
Senegal

Liberty Mhlanga

Liberty Mhlanga

Tel: 505-91/506-87

Cable: IDEP, DAKAR

Telex: 579 IDEP Dakar

Federation internationale d'Économie
Familiare,
64 Ave. Edouard Vaillant,
92.100 BOULOGNE,
France. Gilberte Darbre

Tel: 6039039

Family Planning Association of Sri Lanka,
37/27 Bullers Land,
COLOMBO 7,
Sri Lanka. Dayanath C. Jayasuriya

Dayanath C. Jayasuriya

Tel: 84269

Cable: FAMPLAN, COLOMBO

Forum W,
(Forum for Responsible Application
of Science),
Ch-4113 FLUH,
Switzerland. Konradin Kreuzer

Konradin Kreuzer

Indian Environment Society,
8 Darya Ganj,
NEW DELHI 110002,
India. Desh Bandhu

Desh Bandhu

Tel: 274653

Indian Youth Population Coalition,
39/15 Appar Swami Koil Street,
MADRAS 600019,
India. K.M. Susai Benjamin

K.M. Susai Benjamin

Tel: 552380

Cable: POPULATION MADRAS

Institute for Environmental Education,
Plantage Middenlaan 41,
AMSTERDAM,
Netherlands. Ron ten Kortenaar

Ron ten Kortenaar

Tel: 020 228115

International Council of Scientific
Unions,
51 Bld. de Montmorency,
75016 PARIS,
France. Michael Baker

Michael Baker, F.S.C.P. Kalpage

Tel: 527-7702/525-0329

Cable: ICSU PARIS 016

Telex: ICSU 630553F

International Council of Voluntary
Agencies,
17 Ave. de la Paix,
1202 GENEVA,
Switzerland. Cyril Ritchie

Cyril Ritchie; Lucy Karuga

TEL: 022-3320 25

1209 GENEVA,
Switzerland. H.Z. Evan

International Schools Association,
Palais Wilson 20,
1211 GENEVA 14,
Switzerland.

Claudine Richard

Cyril Ritchie

Tel: (022) 32 08 29
Cable: INTERSCHOOLS

International Youth Federation for
Environmental Studies & Conservation,
Amerikavej 3B MZ.TV,
DK-1756 KØBENHAVN V,
Denmark.

Birgith Sloth

Birgith Sloth

Tel: 05/782044

International Youth and Student Movement
for the UN (ISMUN),
5 Chemin des Iris,
1216 COINTRIN,
Geneva,
Switzerland.

Roger Manser

Roger Manser

Tel: (022) 331756

ISMUN Argentina,
Colombes 980 bis,
2000 ROSARIO,
Argentina.

Delmar Blasco

Delmar Blasco

International Union for the Con-
servation of Nature, and Natural
Resources, (IUCN)
1110 MORGES,
Switzerland.

Alfred Hoffman

Alfred Hoffman

Tel: (021) 714401

Jeunes Science Tunis,
28 Avenue Habib Bourguiba,
TUNIS,
Tunisia.

Faycal Ben Hassine Bey

Faycal Ben Hassine Bey

Tel: 245-088

Keep Switzerland Beautiful/Swiss Assoc.
for Water and Air Protection,
ASS/VGL Secretariat,
P.O. Box 105,

Wolfgang Moser

Tel: (01) 4463 63
4456 78

League of Red Cross Societies,
P.O. Box 276,
1211 GENEVA 19,
Switzerland.

John David Armitage

John David Armitage

Tel: 34 55 80
Cable: LICROSS GENEVA

The Lutheran World Federation,
150 route de Ferney,
P.O. Box 66,
1211 GENEVA 20,
Switzerland.

Edward Mwangosi

Edward Mwangosi

Tel: 022/333400
Cable: LUTHSERVE
Telex: 289 200 lws ch

Massachusetts Audubon Society,
South Great Road,
LINCOLN,
Mass, 01773,
U.S.A.

John R. Cook

John R. Cook

Mauritius National Youth Committee for
Environment and Conservation,
c/o Young Farmer's Office,
Youth Office,
Royal Road,
PHOENIX,
Mauritius.

Rajen Awotar

Rajen Awotar

Tel: 64-980
Cable: YONGFARMER PHOENIX

Miljöförbundet (Sweden's National
Ecologist Alliance),
Box 2129,
S-75002, UPPSALA,
Sweden.;

Roland von Malmberg

Roland von Malmberg

Mimarlar Odasi (Chamber of Architects
of Turkey),
Konur Sokak 4,
Kizilay,
ANKARA,
Turkey.

Süheyl Kircak

Süheyl Kircak

Tel: 255011/263988

National Christian Council of Kenya
P.O. Box 45009,
NAIROBI,
Kenya.

Mary Opiyo

Mary Opiyo

Tel: 338211
Cable: OIKUMENE

National Trust for Fiji;
P.O. Box 2089,
SUVA,
Fiji.

Uday Raj

Uday Raj

Tel: 25807
Cable: UNIVERSITY SUVA
Telex: fj 2276

ONTARIO FORESTRY ASSOCIATION,
150 Consumers Road,
Willowdale,
ONTARIO,
Canada.

J. Coats

Science Education Programme for Africa,
(SEPA),
Box 9169 AIRPORT,
ACCRA,
Ghana.

Hubert Dyasi

Hubert Dyasi

Tel: 75707
Cable: SEPA ACCRA

Sierra Club International,
Office of International Environmental
Affairs,
800 Second Avenue,
NEW YORK, NY 10017,
U.S.A.

Dumon Stansby

Dumon Stansby

Survie-Belgique,
Quai du Halage 54,
4540 VISE,
Belgique.

Maurice Andre

Maurice Andre

Town and Country Planning Association,
Education Unit,
17 Carlton House Terrace,
LONDON SW1,
U.K.

Tony Fyson

Tony Fyson

Tel: 01-930 8903

International Fed. of Medical
Student Assoc,
19 Ardulignon,
GENEVA,
Switzerland.

Lulop Tamas

United Nations Environment Programme,
P.O. Box 30552,
NAIROBI,
Kenya.

Victor Johnson

Victor Johnson

Tel: 333930
Cable: INITERRA

United Nations Environment Programme,
P.O. Box 30552,
NAIROBI,
Kenya.

Gary Herbertson

Gary Herbertson

Tel: 333930
Cable : UNITERRA

Village Reconstruction Organisation,
Brodiepet 6/9,
GUNTUR (A.P.),
India.

M.A. Windey

M.. Windey

World Association of Girl Guides
and Girl Scouts,
17 Chemin Francois Lehmann,
1218 Grand Saconnex,
GENEVA, Switzerland.

Libo Barton

Libo Barton

World Federation of Democratic Youth,
Ady Endre u. 19,
BUDAPEST II, P.O. Box 147,
Hungary.

Peter Reinhardt

Tel: 128640

Peter Reinhardt

World Leisure and Recreation Association,
18 Ave. de Bude,
GENEVA 1202,
Switzerland.

Norman Lourie;

Christina de Quitano-Cabauero

Norman Lourie

World Organisation of the
Scout Movement,
C.P. 78,
1211 GENEVA 4,
Switzerland.

John Jackson

Tel: 022 204233

Cable: WORLDSCOUT

Telex: 28139 WSB CH

John Jackson

World Young Women's Christian Association ,
37 Quai Wilson,
1201 GENEVA,
Switzerland.

Barbara Bigaut; Brigitte Lacroix

Tel: 022 323100

Cable: SOROMUNDI

Brigitte Lacroix

World Peace Council,
24A rue Lamartine,
1205 GENEVA,
Switzerland.

K. Kielan

K. Kielan

World Confederation of Organisations of the
Teaching Profession, (WCOTP)
5 Av du Moulin,
1110 MORGES,
Switzerland

Mary Opiyo

ABSTRACTS OF PAPERS PRESENTED

TO THE NGO WORKSHOP FOR ENVIRONMENTAL EDUCATION COOPERATION

NGO Workshop for Environmental Education Cooperation

ABSTRACTS OF PAPERS PRESENTED
by Representatives of Non-Governmental Organizations

AWOTAR, R. An Overview of Environmental Education in Mauritius. National Youth Committee for Environment and Conservation, Mauritius. (3pp).

Although there is no definite EE policy in Mauritius, efforts at imparting information concerning the environment have been made through the mass media. Environmental organisations are concerned with a variety of activities, talks, seminars, fruit tree planting and poster competitions.

BANDHU, D. Report from the Indian Environment Society. Indian Environment Society, India. (2pp).

In India, EE has been introduced into the primary school system: environmental aspects have been integrated into the social and science subjects. Non-formal education is one of two types, supplementary education to students, and education for the masses, both of these aspects are supported by the Indian Environment Society.

BEN HASSINE BEY, F. Environmental Education Through Out-Of-School Activities. Jeunes Science Tunis, Tunisia. (2pp).

The principal aim of Jeunes Science Tunis is to promote science and technology among Tunisia's youth, by encouraging students to choose their own scientific work, and developing multidisciplinary teams for such tasks as researching into Tunis Lake. The organisation is also concerned with the environmental education of adults - divided into urban and rural programmes and concentrating on specific problems by using the mass media; and education of decision makers and politicians - by bringing environmental problems to their attention.

BENJAMIN, K.M.S. The Role of Voluntary Organisations (NGOs) with Special Reference to Youth Organisations in the Environment Movement. Indian Youth Population Coalition, India (1p).

In a dynamic society community action groups are bound to exist to help bridge the gap between the community and the government. These groups play an important role especially in enlisting community participation. Youth organisations are able, through their interest in the future and their flexibility to be particularly active.

BLASCO, Delmar. The Teaching of Basic Elementary Sciences in the Primary School, emphasizing the aspects related to the environment. International Youth and Student Movement for the UN, Argentina. (6pp).

A curriculum for the primary science course in Argentina is given incorporating environmental aspects. The curriculum is used in teacher's training courses.

Abstracts of Workshop Papers

CHAVERRI, Adelaida. A Diagnostic Overview of Environmental Education Programmes in Costa Rica. Costa Rican Association for the Conservation of Nature (ASCONA), Costa Rica. (6pp).

Environmental education has been incorporated into all levels of formal education in Costa Rica. In the primary level into both science and social subjects, into the secondary level and into the tertiary level. A school of environmental sciences was established at the national university, which specialises in environmental sciences in environmental topics, and has also set up an environmental information centre. Other university schools are also incorporating environmental aspects into their curricula. No formal education is carried out by NGOs, but they hold lectures, lobby for legislation in environmental matters, and campaign through the mass media. Some government departments are also involved in EE, and prepare literature and audio-visual materials.

CONNELL, John. Environmental Education in the Caribbean. Caribbean Conservation Association, Barbados. (3pp).

The Caribbean Conservation Association's Environmental Education Programme started 2½ years ago in Barbados. Its main feature is a panel of 25 lecturers, who speak to 27 schools. It has also mounted vacation projects concerned with both the natural and cultural heritage. Teacher training courses and workshops are planned. The EE programme has been broadened to include the general public, using the news media, radio and television and existing organisations, such as trade unions, service clubs, business organisations, and churches. It is intended that the model should be used by the rest of the Caribbean, where the CCA has organised some lectures and seminars. EE initiatives are also being taken by governments and other NGOs, coupled with a growing awareness of the environment in the Caribbean.

DYASI, Hubert. Programming Action in Environmental Science Education - A case study. Science Education Programme for Africa, Ghana. (4pp).

This case study is an illustration of how SEPA has functioned in Environmental Science education to focus young people in school to further their development towards a constructive awareness, skilful problem-solving and a knowledge base to enable them to take rational action with respect to the environment. Programming activities were developed illustrating the value of first-hand familiarity with biological, physical and man-made phenomena.

Abstracts of Workshop Papers

In carrying out these functions, SEPA made concrete phenomena an immediate source of learning and action. In order to mobilise human and material resources, SEPA assigned itself specific roles aimed at creating a constituency with groups and individuals in decision-making and leadership positions.

FERNANDEZ, Irene. Environmental Education in Malaysia : Experience of the Consumers Association of Penang. Consumers Association of Penang, Malaysia. (6pp).

Malaysia, as in many developing countries, is a victim of the consequences of unlimited growth with indiscriminate exploitation of its natural resources. The government has devised an EE plan, but this has not been carried out, except for a few courses at the tertiary level.

The Consumers Association of Penang is involved in EE, making statements to the press, sending memoranda to the government, organising forums and seminars, visiting schools, universities and colleges.

JAYASURIYA, D.C. Strategies for Introducing an Environmental Education Component into Population Programmes : A study of possibilities and prospects from the perspective of Sri Lanka. Environmental and Population Law Committee of the Family Planning Association of Sri Lanka, Sri Lanka. (4pp).

Sri Lanka has population education programmes run by both government and NGOs. An increased element of environmental education could be added to these programmes, which are for both in-school and out-of-school youth, as well as for adults.

JOHNSON, Victor, O.I. and M. ROYSTON. Self-Reliance and Environmental Management. UNEP, Kenya and Centre d'Etudes Industrielles, Switzerland. (10pp).

In 1975, CEI with UNEP, undertook a project to help educational institutes in developing countries set up their own environmental education programme for decision makers and policy makers in government and industry. The institutes in developing countries interviewed top-level decision makers and determined that the subject of the proposed seminars should be 'Environmental Impact Assessment'. Many of these seminars have since been held. By directly involving local educators, there was a rapid implementation of relevant educational activities, mobilising a wider group of influential educators.

Abstracts of Workshop Papers

JOSEPHS, Dennis. Environmentalising Education: Preliminary Observations on the Communication of Holistic Concepts. Environmental Planning and Management, University of California, USA. (6pp).

Classroom and field observations have led the author to consider that one of the important factors limiting the effectiveness of EE Programmes is the difficulty encountered by educators in the transition from linear to more holistic patterns in thinking. Attention was focused primarily at the implementation rather than the planning end of the EE spectrum, with research which was specifically aimed at examining problems, underlying factors as well as communication methods related to the linear-systemic transition problem.

KAPAUAN, Amando. An Environmental Chemistry Course for the Professional Chemist. Bureau of Asian Affairs, Philippines. (2pp).

As a significant portion of methods used to relieve environmental problems involve chemical science and technology, chemists very often find themselves in need of environmental training. Ateneo de Manila University in the Philippines, has introduced a course in chemical concepts and techniques. It is adapted from an analytical course, tackling 'real life' problems.

KIRCAK, Suheyl. Environmental Problems and Environmental Education. Mimarlar Odasi, Chamber of Architects of Turkey, Turkey. (6pp).

Environmental problems in Turkey are caused by a variety of factors, industrialisation, depletion of natural resources, high population growth and rapid urbanisation. Turkey has no formal environmental education policy, a little EE is done by professional institutions in their training programmes.

KUBLER, R. and B. Sloth. A Report on Environmental Education as Out-Of-School Activities in Self-Governing Youth Environmental Organisations. International Youth Federation for Environmental Studies and Conservation, Denmark. (8pp).

IYF consists of more than 20 self-governing youth organisations dealing with Environmental Education and Conservation. Their work is based on self-experienced knowledge, using the 'learning-by-doing approach, relying on the natural curiosity of young people,

KURUVELA, Thomas. Persatuan Perlindungan Alam Sekitar, Malaysia (Environmental Protection Society, Malaysia). Environmental Protection Society, Malaysia. (2pp).

An overview of the Society's structure, membership and activities.

Abstracts of Workshop Papers

MHLANGA, Liberty. Environmental Education in the Context of Development - An ENDA Perspective. Environment Training Programme, Senegal. (4pp).

An outline of the environmental approach used by ENDA in developing countries which concentrates on rural and urban district eco-cultures, small sub-cultures of people affected by essential modernisation of a country, but often not able to benefit from these processes. The environmental approach involves the people who are affected as they work out ways to improve their lives and take action for themselves.

MISRA, K.C. Environmental Education at School Level in Developing Countries. Department of Botany, Banaras Hindu University, India. (8pp).

In that the environment of rural and urban populations are different, the environmental education for people in those different environs must cater to their different surroundings: The programmes also have to be outlined for different age groups. Suitable syllabi for school children, in both rural and urban situations are given.

NINAN, V. A Global Strategy to Mobilise Youth for the Quality of the Human Environment through Environmental Education: Youth environmental action programme of student-teachers. Youth Environment Programme for West Africa, Nigeria. (9pp).

Youth have a special role to play in environmental education. By mobilising youth organisations, first internationally, then when this is established, regionally and finally locally, youth activities could be coordinated.

OPIYO, Mary. Literacy Adult Education in Kenya : Special emphases - Rural Areas and Womens Groups. National Christian Council of Kenya, Kenya. (8pp).

60% of the Kenyan population is illiterate. The National Christian Council of Kenya, with the Kenya Government, has established an adult education programme, to initiate and promote literacy projects through community and church self-help projects. The target groups of the programme are mainly women. The literacy materials include information on relevant aspects of agriculture, nutrition and health. Examples are given from projects in Machakos, Kibera, and Homa Bay Districts.

Abstracts of Workshop Papers

RAJ, Uday. Environmental Education in the South Pacific.: Current Status and Future Needs. National Trust of Fiji, Fiji. (5pp).

In the South Pacific EE does not feature as a separate subject in the formal school curriculum, but has been incorporated in some of the formal science subjects. At the higher level, the University of the South Pacific has courses which emphasize environmental aspects.

The National Trust for Fiji is active in non-formal education. The Trust produces literature, both books and a monthly periodical, has established a nature trail and set up exhibitions. Fijian youth organisations are also involved in EE.

SHAHDOL. Development Planning and Technology - Some alternatives for the Indian case, India. (12pp).

The process of development is subjected to a critical analysis in terms of the inception of concepts of development planning technology over periods of time. An attempt has been made to indicate how contemporary concepts control economic, social, and political trends today and how they are insufficient to solve present problems of under development. Some suggestions have been offered as examples of such solutions taking a specific area of India as the reference base. A hypothesis is advanced that while the concept of development in a particular social system determines the nature of planning and the technology, used, nevertheless, it is possible for technology, when systematically used, to challenge the concept itself.

TEJPAL, Autamlal c. Environment and the Third World. Friends of the Trees, India. (2pp).

By planting fruit trees, interspersed with trees for fuel and fodder grass, unemployment, malnutrition and desertification could be halted, with little foreign financial and technical aid.

VIROJ NA BANGCHANG. Environmental Education and Cooperation. Asia Environment Council, Thailand. (3pp).

Asia is in a state of environmental turmoil, with rapidly increasing population and decreasing non-renewable resources. Environmental education should increase awareness of the environment and man's relationship to that environment.

There has been little coordination between the local NGOs in Asia and the Asia Environment Council was established to help in this.

WINDEY, Prof. M.A. . Memorandum of Discussions on Village India Development. Village Reconstruction Organisation, India. (2pp).

This is a plan for holding a 'Village India Year' in 1978-79 and for drawing up a new national budget to stimulate village reconstruction.

RESOLUTION AND RECOMMENDATIONS ADOPTED BY THE NGO WORKSHOP

FOR ENVIRONMENTAL EDUCATION COOPERATION

RESOLUTIONS ADOPTED BY THE NGO ENVIRONMENTAL EDUCATION WORKSHOP

GENEVA, SWITZERLAND

October 28-30, 1978

Resolution

Whereas UNESCO meeting held in co-operation with UNEP at Tbilisi considered the important role of non-governmental organisations and voluntary bodies in the field of environmental education at all levels AND recommended that such NGOs should incorporate environmental education activities in their existing programmes.

AND WHEREAS a representative number of the same NGOs met at Geneva and considered the appropriate theoretical and practical frame-work in which they can best promote environmental education.

AND WHEREAS the said NGOs agreed that education (as defined by the Belgrade Charter) is basically training for living within a given environment AND that they should strive to cause the philosophy to permeate all sectors of formal and non-formal education.

AND WHEREAS UNEP has declared its commitment and willingness to assist global, regional and national NGOs in their task of promoting Environmental Education.

BE IT RESOLVED that effective measures be taken to ensure that the environmental education work being done by NGOs nationally, and regionally be continued and enhanced AND in particular that a project for funding to assist them in so doing be submitted to the United Nations Environment Programme AND that such a project be developed with the framework and guidelines in Appendix I-II thereto.

APPENDIX I Strategies Concerning a Central Organisation for NGO
Cooperation in Environmental Education

1.1 Recommendation to Establish a Steering Committee

- 1.1.1 During the remainder of the current ELC project a fully representative steering group of NGOs will be convened to consider the development and financing of a 3-year project to be developed by the ELC or another suitable organisation, the basis of which should be the recommendations below:

1.2 Recommendation Concerning a Central Organisation

- 1.2.1 There is a need for a central organisation to facilitate regional work in Environmental Education.
- 1.2.2 The principal aim of this central organisation should be to encourage development of Environmental Education at the regional level.



- 1.2.3 A primary task for a new project will be to define the form the organisation of NGOs might take.
- 1.2.4 Any global (central) organisation must be:
- . efficient
 - . accessible - not only physically but in its organisation and philosophy
 - . representative - of all the world, geographically and culturally
- 1.2.5 We recommend that the steering group should consider first the establishment of this central body which could (facilitate simultaneous global response to urgent EE problems, and) have the following functions:
- (i) the distribution of information about the availability of EE materials and aids
 - (ii) the coordination of the distribution of the material itself
 - (iii) the ensuring of a record of the evaluation which the user NGOs make of the materials that they use
 - (iv) the performance of the classification and other library functions in connection with this material
- 1.2.6 The work of the new body should pay particular attention to the patterns of existing environmental education in each of the world regions and to facilitate inter-change between them, noting particularly the connection between environment and development.

1.3 Recommendation concerning the ELC

- 1.3.1 If the ELC is to become the central organisation referred to, it should have improved representation. By this we mean a re-constituted board of directors with a more balanced geographical and cultural spread.

1.4 Recommendation concerning membership in a Central Organisation

- 1.4.1 All organisations represented in Geneva give serious consideration to becoming members of ELC or another representative body, in the view of the fact that such an organisation will eventually have to become self-financing.

1.5 Recommendation concerning UNEP

- 1.5.1 We welcome the initiative of UNEP in setting up the EE and Training Unit, and recommend that it works closely with the ELC during the remainder of the current ELC project.
- 1.5.2 These ELC/UNEP future operations should be much more guided by initiatives from the regions.

APPENDIX II Non-Formal Education

2.1 Recommendation concerning Non-Formal Education

- 2.1.1 Definition of terminology - non-formal education is a Public Relations Exercise to publicise environmental knowledge.
- 2.1.2 The setting-up (this can be done by any NGO interested) in communities of Community Environmental Education and Protection Councils - CEEP (pronounced 'keep'). This can be village, city, factory or any kind of community oriented.
- 2.1.3 Specific groups should be identified and programme developed according to needs, for example:
- | | |
|---------------------|---------------------|
| Public Authorities | Management |
| Organised Youth | Labour - Industrial |
| Recreation groups | - Agricultural |
| Village Communities | Slum dwellers |
| | Family Planners |

APPENDIX III Formal and Professional Education

3.1 Recommendations on Formal Education and Professional Education

- 3.1.1 That in education, the environment could be considered as a new component of the liberal arts or the humanities and should therefore permeate all relevant courses for pre-professional and professional courses. All efforts therefore must be made for achieving this.
- 3.1.2 That definite courses for professionals such as engineers and doctors of medicine be designed and offered, such as 'environment for engineers' and 'environment medicine'.
- 3.1.3 That appropriate programs in different suitable formats be created for industrialists and administrators with emphasis on the positive aspects of good environment and de-emphasising confrontation between the public and themselves. Among the formats that may be employed are seminars, in-house training or information programs and inter-sectoral task forces.
- 3.1.4 That environmental education programs be designed for the practicing professionals, directly, through their professional and service organisations and indirectly through garden clubs, bridge clubs, etc.
- 3.1.5 That teachers are especially important professional group and that special efforts be made to sensitize them to the environment, supply them with Environmental Education materials, emphasizing programs that will not add either to the time they have to exert. These materials must at all times involve real cases with as strong local or even individual interest as possible.

- 3.1.6 That definite steps be taken to make clear to the Environmental Education mover, the various techniques and methodologies that have been found to work in this area. Such a technique as involving the target group in actual environmental or Environmental Education activities, either actively or passively (by their articulation of their needs, for example) suggests itself immediately.
- 3.1.7 That environmentalists as such are not created by any definite undergraduate program but rather evolve from graduates of specific or even non-specific programs. Any move towards creating an undergraduate program for environmentalists should therefore be examined very closely and in general be discouraged or if offered at all, be based on some specific disciplines.
- 3.1.8 That whatever action programs are recommended should be carefully evaluated on the basis of implementability in terms of manpower, time and money.
- 3.1.9 That in all of the above, the NGOs in Developing Countries should try to assume the leadership in environmental education since they can in most cases react/act in a much more rapid and more expert manner than the concerned Governmental agencies.

3.2 Recommendations Concerning NGOs Working Groups in Formal Education

Preamble: As a concrete example of NGO contributions to the inclusion of environmental aspects within the different levels of formal education, the following is suggested:-

- 3.2.1 To promote the setting up of working groups integrated by specialists and in-service teachers/professors, in cooperation with education authorities, to revise the official curricula of all subjects in order to propose a re-schedule of them, integrating the aspects related to the environment. It is proved that, in many cases, it is not a question of including new contents into the curricula, but to redefine the approach to the problems to be taught.
- 3.2.2 These working groups should also work towards the aim of avoiding unnecessary repetitions of the same topics in different subjects, and furthermore, to develop methods and pedagogic techniques which could facilitate and assure a real comprehension of the interrelations of environmental aspects.
- 3.2.3 To create educative aid materials to be used by the teachers/professors/pupils, adapted to the local/national conditions and culture(s), should be also a task for the working groups referred to above.

APPENDIX IV Communications and Mass Media

4.1 Recommendations of NGO Inter-communication and Use of Mass Media

- 4.1.1 NGOs to make more intensive usage of existing mass media at local and national levels:-

- . need training in mass media techniques
 - . need to cultivate mass media contacts
 - . need to communicate with other appropriate NGOs over press releases.
- 4.1.2 NGOs to exchange, on a regular basis, publications, materials, action guides, personnel, etc. with each other and the Environment Liaison Centre:
- . need for evaluation of material and feed-back to originating NGO and ELC
 - . emphasis on practical advice (e.g. giving lectures, setting-up new groups, organising campaigns)
- 4.1.3 The Environment Liaison Centre should compile a catalogue of NGO and other institutions (e.g. UNEP) resources (including interests, publications, A-V material, translation facilities, experience, contacts with media, availability of materials). This would require a survey (ELC to organise. Suggested questionnaire below). The information from this to be made available to NGOs.
- 4.1.4 UNEP to facilitate (finance? organise?) the training of NGO personnel in media techniques (e.g. approaches to journalists, preparation of press releases, TV appearances), production of their own A-V material (e.g. slide sets, use of tape recording, film production, design of wallcharts), use of theatre and drama (especially in Developing Countries?).
- 4.1.5 Communication of knowledge and of actual effective methods tried out in real situations should be facilitated between the generators of such knowledge and methods and their actual and potential users. Such communications media as meetings, newsletters, referral systems, etc., set up for national, regional and international interactions should be set up quickly and maintained.

Suggested Questionnaire - Survey of NGO and Other Resources

- | | | |
|--|---|--|
| 1. Name of NGO | 2. Address | 3. Name of person supplying details |
| 4. Aims | 5. Special environmental interests | 6. Publications available (Author, title, date, price) |
| 7. Audio-visual materials available (title, format, hire/loan) | 8. Other suitable materials | 9. Translation facilities (state languages) |
| 10. Contacts with media | 11. Other relevant experience/advice (setting up groups, organising campaigns, production of teaching aids, etc.) | |

INTERNATIONAL CONFERENCES AND GETTING THE MOST OUT OF THEM.

by Richard Hughes

PUBLICATIONS RESULTING FROM THIS PROJECT

Publications are attached in this Appendix in the order in which they are listed.

1. Hughes, Richard. *International Conferences and Getting the Most Out of Them.* pp.4.
2. Lee, Michael. *Summary of Documents Prepared for the Intergovernmental Conference on Environmental Education, Tbilisi.*pp.7.
3. Khan, Melinda and Dorothy Myers. *An Overview of NGO Environmental Education Activities.* pp
4. Mhlanga, Liberty. *Environmental Education in the Context of Development - an ENDA Perspective.* pp.4.
5. Johnson, Victor. *Challenges and Opportunities of the Tbilisi Intergovernmental Conference on Environmental Education.*pp.8.
6. Environment Liaison Centre. *Report on the Intergovernmental Conference on Environmental Education and the Workshop for Environmental Education Cooperation.*pp.4.
7. Hughes, Bridget and Serena Zwangobani. *UNESCO/UNEP Intergovernmental Conference on Environmental Education: Recommendations Summarized.* pp.8.
8. Zwangobani, Serena. *Obtaining Money from a Funding Agency - How to Write and Ask.* pp. 7.
9. *Environmental Education Cooperation News.* No.1, 7 November 1977. pp. 3.
10. *Environmental Education Cooperation News.* No. 2, 28 December 1977. pp.5.
11. *EE Switchboard.* No. 1, January/February 1978. pp. 24.
12. *EE Switchboard.* No. 2, March/April 1978. pp. 15.
13. *EE Switchboard.* No. 3, May/June 1978. pp.

INTERNATIONAL CONFERENCES AND GETTING THE MOST OUT OF THEM

The Conference

Attending a major United Nations inter-governmental conference can be boring, stimulating, very hard work, frustrating and rewarding. If the positive aspects are to out-weigh the negative one must have a positive aim: either to absorb, analyse and report on the conference to those unable to be there, or attempt to influence the decisions made at the conference. Some people do both, and make the most of the third opportunity such conferences offer, which is to meet interesting people from other parts of the world who share a common interest.

Most United Nations conferences are attended by delegations from member states plus organisations such as the Organisation for African Unity or the Palestinian Liberation Organisation. Government delegations consist of a number of delegates each of whom, in theory at least, has a particular expertise related to the subject area of the conference. In addition to the delegations there are accredited observers from non-governmental organisations who are recognised by the United Nations agency running the conference, and the public which may include observers from non-governmental organisations without accreditation.

The conference itself is usually organised with Plenary Sessions at which formal statements from the delegations are made, some issues discussed and there are reports from committees. Resolutions and recommendations are accepted or rejected during the final plenary sessions of the conference. (The formal statements have usually been written long before and can more easily be absorbed by a quick reading through in the evening).

The main work of the conference is usually done in committees on various subjects, which explains the numbers in government delegations. At any one time there might be three committees needing at least a delegate from each government knowledgeable in the particular subject area, to attend and make interventions as necessary.

Procedure in the committees is laid down in the regulations for the conference but is generally more informal and spontaneous than in the Plenary. Although each morning and afternoon committee session has a list of government delegates who have put down their names to speak, interventions can be made by show of hands. Near the end of each day the committee then appoints a drafting committee who will work on a resolution, or incorporate amendments to the position papers, for presentation to the committee the next morning.

Many delegations meet regularly over an early breakfast to compare notes on the different committees, to establish policy for the day's discussion and to discuss the papers prepared the previous night. In the evening it is often the case that delegates find themselves drafting papers, new clauses and amendments late into the night for typing ready for discussion first thing the next morning, and so the cycle continues for perhaps a fortnight or more.

International Conferences

A feature of some inter-governmental conferences is the conference newspaper, usually delivered free first thing in the morning to all delegates and observers in town and run by a consortium of non-governmental organisations. Most of these papers are excellent: critical where necessary, intelligently written, entertaining and valuable to the work of the conference as a whole. They give up-to-date reports on what took place the previous day, what they think should have taken place, and what was behind some of the statements made, together with timely reminders of the real subject of the conference (which tends to get lost in the rules of debate and inter-governmental politics).

The conference newspaper serves a vital purpose in linking NGO activities with the work of the main conference, especially where, as for instance at Habitat, the two parts of the conference are separated by a considerable distance on the ground as well as philosophically and sartorially.

It is essential to obtain and have read the conference agenda and key papers before leaving home. At the conference, the secretariat issues a daily bulletin of meetings and activities, and runs press briefings with summaries of the main issues discussed the previous day. These one should obtain and attend, especially if there is no newspaper.

The Effective NGO Representative

So much for the conference itself: as an NGO representative or member of a group of NGOs intending and hoping to influence the out-come, how can one operate most effectively?

On any issue there are usually as many NGO points of view as there are NGOs and sometimes more, so to be effective, some co-operation and collaboration must be organised. Civil servants and international bureaucrats are not universally open to NGO persuasion at the best of times, and if they are pestered with a variety of conflicting suggestions then they are unlikely to be receptive.

NGOs should therefore establish common attitudes where possible and co-ordinate their lobbying activities. Representatives should meet every evening to exchange news and plan the following day. A secretariat needs to be set up so that memos can be typed, news releases prepared and so on. If possible there should be a space available for NGO briefing meetings and press conferences. In some cases the organisation running the main conference will provide these facilities, in others the NGOs will have to set it up themselves.

The NGO headquarters will be useful for leaving messages and maintaining contact with colleagues. A system of reporting on the day's activities should be set up so that NGOs can keep track of developments in other areas and take action or divert their attention to another committee if necessary.

In seeking somewhere to stay, outlying rooms may seem cheap, but time and convenience become increasingly desirable, so it is often better in the long run to be in the heart of things:

International Conferences

it may cost a few more dollars, but will save hours of frustration, especially late at night.

In lobbying one must concentrate on the most likely national delegations and establish the key person on each issue. A short statement should be left after making one's verbal pitch, both concise and to the point, as everybody is short of time.

To influence the outcome of a debate one should lobby the key delegates; help them with data and possibly draft statements, particularly on technical issues; build up a climate of opinion in the press and, if necessary, make a formal statement to the committee. The various approaches should be co-ordinated between NGO representatives and not offer conflicting advice.

For meeting and lobbying delegates one must be available at the tea and coffee breaks, and when delegates are milling around before and after sessions. For this it is best to exchange one's leather jacket and jeans for camouflage of a suit and tie so that the bureaucrats who make up the government delegations are less likely to be startled and on the defensive when addressed by a stranger in the queue for coffee. As in any aspect of this activity one must know what one is talking about, and make sure that it is relevant to the subject being debated - it is no use lobbying the delegates of a committee concerned with whales about nuclear power or deserts.

NGO observers, depending on the precise regulations laid down, may address a committee, or even the plenary, on the subject under discussion and with the agreement of all those present, usually after the government delegations have spoken. This important privilege is rarely taken advantage of, but can be effective and useful, provided the statement made has been carefully prepared, is to the point and actually contributes something new to the debate. However for the NGO representative it is a time-consuming exercise: firstly the statement needs to be prepared and discussed with colleagues and other NGOs to establish a consensus of what needs to be said; then it must be polished and reduced to the five minutes or whatever the time allowed. Polished not so much to a fine edge of elegance but to obtain the maximum clarity and impact, particularly as it will be translated simultaneously into three or four other languages. It is good practice to deliver the statement to the translation booths in advance, so that the translators have had an opportunity of scanning it and working from a text while one is speaking.

Having made a written application quoting the regulation under which he may speak, the NGO representative finds his moment continually put off as more government delegations put their names forward and have right of way, so that the NGO statement comes at the end of the morning or afternoon session. This is another reason why it has to be clear and to the point, because it is delivered to a committee which is tired and beginning to think hard about lunch or cocktails and dinner. After delivery it should be circulated to all members of the committee and as widely as possible.

International Conferences

Lastly one should remember that in spite of the numbers of delegates, the awesome rules for procedure and the mountains of paper circulating, it is possible for NGOs to influence events, provided they know how to take advantage of the system, are prepared to put in the necessary effort and recognise that government delegates often welcome help over drafting a statement or supplying useful facts for the speech they have to make.

RICHARD HUGHES

SUMMARY OF DOCUMENTS PREPARED FOR

THE INTERGOVERNMENTAL CONFERENCE ON ENVIRONMENTAL EDUCATION, TBILISI.

prepared by Michael Lee

SUMMARY OF REPORTS PREPARED FOR THE INTERGOVERNMENTAL CONFERENCE
ON ENVIRONMENTAL EDUCATION, TBILISI

ENVED - 4 Education and the Challenge of Environmental Problems

This paper constitutes the working document for the Intergovernmental Conference on Environmental Education (EE).

Chapter 1, discussing major environmental problems in contemporary society, covers similar ground to document ENVED-8.

Chapter 2 deals with the role of education in facing the challenges of environmental problems. EE is seen (33-38) as 'the outcome of a reorientation and dovetailing of the various disciplines and of different educational experiences...making it possible to achieve an integrated perception of the environment and to act towards it in a way that is more rational and corresponds to social needs'. The main aims of EE are seen as to 'enable human beings to understand the complex nature of the environment', to develop 'a national awareness of the importance of the environment in development' and to develop 'a spirit of responsibility and of solidarity between countries and regions' (39-42). The objectives of environmental education are listed (43-47) - to 'disseminate knowledge, values, skills and attitudes such as will foster understanding of environmental problems and their solution' - and the potential recipients identified (48-53). The characteristics of EE are suggested: that its approach 'should be geared to the solution of specific problems of the human environment', that it should contribute to the 'effective solution of concrete, complex problems', that there should be an interdisciplinary approach and 'open to the surrounding community' and, finally, that it should have a 'lifelong and forward-looking character' (54-67).

Chapter 3 describes current efforts at the national and international levels for the development of EE. At the national level, there are discussions of efforts to include environmental topics in formal and non-formal education (70-82), efforts regarding the training of the personnel required for the development of EE (83-86), efforts connected with the development of teaching materials for EE (87-89) and efforts concerning research activities relating to EE (90-97). Some of the problems encountered are discussed,

which include those due to the difficulty of 'conceptualization of environmental topics and ways and means of introducing them into education' (98-103), and problems relating to 'the implementation of EE activities in the formal and non-formal sectors. These problems are of an institutional or pedagogical nature, or they may be due to a shortage of staff, materials or funds...' (104-110). International efforts are described, covering those of Unesco and UNEP, in part the subject of documents ENVED-5 and ENVED-9 (111-119), of other United Nations agencies (120-127) and of other intergovernmental and non-governmental organizations (128-136).

Chapter 4 is suggested as a 'starting point for discussions by the Conference of (national) strategies for the development of EE and, possibly lead it to formulate recommendations on this subject'. Needs and priorities identified in the international survey on EE are summarised (140-143, and more fully in ENVED-6). General and specific strategies for the development of EE are detailed: EE in the context of educational planning and innovations; general education of the public through formal and non-formal education; EE for specific professional groups; training of personnel for the development of EE; functions of educational research in the development of EE; and the role of information and the mass media in EE. The final section (220) puts forward nine points for consideration in formulating recommendations.

Chapter 5 is concerned with international and regional co-operation for the development of EE, 'with governments within the framework of the policies defined by them'. The general objectives of the plan of co-operation are firstly, 'to ensure efficient co-ordination and a greater degree of complementarity' and, secondly, 'to provide an instrument for the mobilization of the human, technical and financial resources required to develop EE' (227-228). Priority aspects are discussed (229-241) and the contribution of the United Nations system to the development of co-operation explained (242-257). The role of regional and sub-regional co-operation is emphasised (258-263). The chapter concludes (265) with some suggestions to the Conference on guidelines and recommendations with regard to international co-operation.

ENVED - 5 International Programme in Environmental Education

This reference document describes the 'global activities of the collaborative Unesco-UNEP International Programme in EE, from its conception in...(Stockholm 1972) through its first three year operational phase: 1975-1977'. The Programme objectives are listed on p.5:

to facilitate the co-ordination, joint planning and pre-programming of activities essential to the development of an international programme in environmental education;

to promote the international exchange of ideas and information pertaining to environmental education;

to co-ordinate research to better understand the various phenomena involved in environmental teaching and learning;

to design and evaluate new methods, curricula, materials and programmes, both in-school and out-of-school (youth and adult) in environmental education;

to train and retrain personnel to adequately staff environmental education programmes; and

to provide advisory services to Member States in environmental education.

The general plan for carrying out the objectives of the programme lies in three principal domains of action: the collection, systematization and circulation of information, including the EE communications system (pp.7-8), the international survey of EE needs and priorities (pp.8-9 and ENVED-6) and a study on trends in EE (pp.9-10). The second domain of action is the study, trial and development of innovations in EE: various pilot projects are listed (pp.10-15). The third domain of action is the encouragement of discussions and exchange of information about policies and strategies for EE; workshops and meetings held, including the present Conference, are described (pp.16-20). Details of the regional meetings on EE are also contained in document ENVED-7.

ENVED - 6 Needs and Priorities in Environmental Education: An International Survey

The greater part of this document describes, and gives a statistical analysis by country of the findings from the 1975 survey, 'Assessment of Resources for EE: Needs and Priorities for Member States' (20-32 and Part II). The needs experienced most acutely are for the training of personnel for educational activities, the preparation

of instructional materials and the development of educational programmes. Other perceived needs are for the creation or strengthening of organizations active in EE and for the adoption of legislation in this area. Priority activities are the training of qualified personnel, preparation of educational materials and the elaboration of, or the strengthening of educational programmes. Importance is placed upon 'structuring the contents and orientations of such a process around concrete problems; encouraging interdisciplinary approaches; and increasing the practical nature of the educational process in order to provide skills related to the prediction and prevention of environmental problems'.

The remainder of the document draws also upon reports of special consultants and other sources in discussing the principal trends of needs and problems, and general considerations for the encouragement of an efficient development of EE. For EE legislation (39-41) it is concluded that 'specifications regarding the means and scope of EE should be introduced within legislation and administrative measures in order to assure that the population acquire the knowledge, attitudes and skills which would permit them to participate actively and efficiently in the improvement of their environment'. In assessing EE programmes (43-47), the document notes that 'in addition to the lack of EE programmes, the most striking limitations of existing programmes are due, in general, to a conception which reduces the environment to its natural aspects'. (48-51): 'The most striking limitations of present-day teacher-training orientations are due, either to the lack of regular preparation of educators in the natural and social aspects of the human environment, or to the lack of possibilities to develop skills through non-directive training.' (52): 'The production of instructional materials for EE has been considerably developed during recent years, although it is still insufficient to satisfy the needs of most of the countries.'

This section concludes with an extended discussion on curricula, training of personnel and instructional resources. On curricula, different formulas for incorporating EE are put forward (68-73), and in (74-76) it is noted that 'the major problems of the training of teaching personnel is not that of providing good teachers of

the environment 'for the classroom - although this is certainly important - but that of helping teachers to open up their programmes to the outside world'. Materials and research are covered in (77-80) and (81-84).

ENVED - 7 Regional Meeting of Experts on Environmental Education:
A Synthetic Report

This reference document presents an overview of the conclusions and recommendations of the five regional meetings held between September 1976 and January 1977: the treatment of particular themes at the different meetings are compared in order to present points of agreement. The main topics discussed were: environmental problems and development (7-14); the nature and scope of EE (15-26); the development of programmes (27-38); EE in formal and non-formal education (39-50 and 51-62); the training of personnel (63-70); and EE at the local and national levels, as well as at the sub-regional, regional and international levels (71-92).

ENVED - 8 Major Environmental Problems in Contemporary Society

This reference paper is intended to provide the basis for 'a common understanding of the nature and cause of environmental problems in order to clarify the role of EE and agree upon the action required in that field'. It defines the environment as 'the stock of physical and social resources, available at a given time and in a given location, for the satisfaction of human needs and aspirations' (8-11) and identifies the demands upon the environment as 'the satisfaction of human needs and the pursuit of more ambitious goals' (12-17). It is emphasised here that 'the impact made by man upon his environment is directly related to, and made more complex by the prevailing economic, social and cultural context'.

Environmental problems are analysed from the point of view of physical, economic and social consequences, categorised as 'resource deterioration, biological pollution, chemical pollution and physical disruption' (19-25), geographical scale (26-29),

time scale (30-32) and socio-economic systems (33-37). It is explained (38-44) in what way an awareness is needed of economic, social and cultural conditions. 'Ultimately environmental problems are problems of human well-being; the purpose of environmental programmes anywhere should, therefore, be to protect and improve human well-being. In this, they serve exactly the same purpose as development programmes.'

The responses of Unesco and UNEP to the problems identified are summarised here (45-46) and more fully in documents ENVED-5 and ENVED-9. The significance of these problems in the context of development is dealt with (47-56) and the need for alternative lines of action, in both developed and developing countries, stressed: that, for example, 'planning of production and investments should be guided more and more by considerations of their distributional impact, by their contribution to achieving a lasting eradication of poverty and to enhancing the quality of the human environment' (58); and that 'popular attitudes and values would need to be influenced to strengthen preferences of people to live in harmony with nature, and to empathy with their fellow beings' (59). Finally, the need for self-reliance and environmental management are explored (61ff).

ENVED - 9 The United Nations Environment Programme and its Contribution to the Development of Environmental Education and Training

The document describes the structure and function of UNEP (sec.1), 'to help strengthen the environmental dimension in a great variety of activities carried out by other international organizations'.

Within the environment programme, six major priority subject areas have been identified (2.5) and functional tasks defined (2.6), the latter including environmental assessment (monitoring, research information exchange, evaluation and review), environmental management (including environmental law; goal setting and planning, international consultation and agreements) and supporting measures (environmental education, environmental training, information and technical assistance). These together are intended to 'catalyse and encourage international and national action for more effective

management of the environment'. There is a detailed summary of the activities undertaken and programmed in the priority subject areas and functional tasks (sec.3).

Section 4 explains UNEP's understanding that 'educational systems be redirected so that the environmental dimension is included in all educational curricula, teaching materials and methodologies, thus building up a lifelong educational process which would provide the knowledge and will to protect our environment and conserve our limited resources'. The two elements to achieve this are 'Education - for establishing sensitivity to environmental problems, raising the level of awareness and generating commitment' and 'Training - for development and mastery of skills, for solving practical problems and for specialized action'. Objectives and strategies for EE (4.2) and environmental training (4.3) are outlined within the framework of decisions of the UNEP Governing Council.

Section 5 lists completed, current and planned UNEP-stimulated field activities in environmental education and training.

AN OVERVIEW OF NGO ENVIRONMENTAL EDUCATION ACTIVITIES

by Melinda Khan and Dorothy Myers

AN OVERVIEW OF NGO ENVIRONMENTAL EDUCATION ACTIVITIES

by Melinda Khan and Dorothy Myers

Environmental education may be defined as a process aimed at creating a better understanding and awareness of all or some of the natural and social systems in which man and other organisms live, and their interrelationship. Most of the activity of the field of environmental education takes place on behalf of governments and international organizations both in the formal and informal educational sectors. The NGO's however make a valuable contribution in most parts of the world in a variety of ways and the objective in this paper is to attempt a summary of their activities. Information was extracted from several sources available at the Environment Liaison Center in Nairobi but predominantly from the NGO Profile Survey. The limitations of the survey are discussed below. The survey information was augmented by reference to a comprehensive address list, information from UNESCO and the ELC document collection. Some sources remained unexplored such as the Sierra Club directory and the reader is referred to them also.

The NGO Profile Survey was initiated in response to the need of the ELC to have not only maximum information on the existence of NGO's throughout the world but also of the nature of the NGO's. In general terms it was felt that a much more thorough and accurate network of information on NGO's was necessary to make the work of the center viable both in terms of service to NGO's and relations with UNEP. It is also important that each and every NGO becomes a part of the network so that knowledge, ideas and action plans can be pooled and reinforced. Thus replication is minimized and quality of efforts maximized through the opportunity to be selective and eclectic. Begun in 1976 and recently completed, the Profile Survey attempted to elicit a very thorough description of each NGO's interests, activities, projects, publications, plans, etc. Profile Survey questionnaires were sent to over 10,000 organizations throughout the world and approximately 2000 organizations responded. From this number, about 1200 identified themselves as 'educational'. This group forms the basis of the data for the present paper.

In considering the world-wide pattern of NGO educational activities according to the ELC Profile Survey, limitations of the Profile Survey must be examined. The objective was to achieve total coverage of NGO's world-wide. Regional co-ordinators were appointed and required to send questionnaires to all organizations in their area. As in most surveys of this nature, the response was small - (about 20%) and a limited, biased sample resulted. Many countries returned no forms at all: most important of these were the USSR and People's Republic of China but also many more such as Niger, Angola, Mozambique, Somalia, Paraguay, Surinam, Guatemala and Burma. Often the regional co-ordinators received more co-operation from NGO's in their own countries than from others in their own region. The East European countries were represented well in numbers but poorly in content. A total

of 1267 organizations identified themselves as 'educational' in the questionnaire. Table 1 shows their numbers by region and reveals the gaps mentioned above.

TABLE 1*
Number of Organizations by Region

<u>Regions</u>	<u>Organizations</u>	
	<u>Number</u>	<u>%</u>
North America	206	16
Western Europe	370	29
Australasia	159	13
South America	48	4
Asia	102	8
Middle Asia	213	17
Africa	116	9
(South Africa)	42	3
Eastern Europe	11	1
	<u>1267</u>	<u>100</u>

It is significant that Western Europe and North America together represent almost half the total and if Australia is added the proportion rises to well over half. Western Europe, North America, Australia and New Zealand have a combined population of approximately 500 millions and 390 of the educational organizations are in these countries. The population of the remaining countries totals around 2000 millions and they are represented by only 116 organizations.

The rate of return indicates a very serious weakness of the study. Whether it is due to inadequate postal service or a shortage of addresses for certain countries or any other reason, is not known. What is important to note is that the conclusions drawn based on this data cannot be generalized to whole nations or regions. The fact that only one organization in Sierra Leon returned a form does not mean that there is only one organization that is involved in environmental education. This problem gives an additional bias to the result.

A preliminary screening of the 1267 organizations of the Profile Survey indicated that some had been included which were not environmental in the wider sense of the term. These were excluded and 1203 remained. Closer scrutiny of the information made further exclusions necessary in accordance with the definition of environmental education and the terms

* Middle Asia includes the Middle East, India, Sri Lanka. Asia refers to the rest of Asia excluding the USSR and China. Within the regions themselves many countries are not represented. Australia includes New Zealand.

of the brief. These exclusions fall into the following groups:

1. Universities

Although it is appreciated that many university departments are strongly environmentally oriented and by their nature 'educational', some of them even in the broader community context, they were nevertheless excluded since they are not 'non-governmental' in the sense in which that term is used by the ELC. Moreover Profile Survey forms were not sent to every university with a known address, whereas they were sent to all environmental NGO's with a known address. Therefore, including a few universities would create an additional bias.

2. Groups highly specialized by area, activity or profession.

This covers the Professional Institutions which exist mainly to serve the interests of their own members; organizations which are limited in scope spatially e.g. "Fraser Island Defence Organization"; organizations reaching only a very limited group of people e.g. "Scandinavian Accoustical Association". The activities of all these groups could be considered environmental and they often have an educational component but they reach only a limited number of people.

3. Organizations which were not educational.

4. Religious organizations.

Most of these were only peripherally active in the environmental field.

5. Rural Development projects.

This group applies mainly to India and Sri Lanka where there are a large number of organizations, usually small-scale, which work with villages or small groups of villages to bring about improvements in the standard of living of the people. Their activities vary but usually include such things as soil and water conservation, improved sewage treatment, health care, development of cottage crafts, etc. Although these activities are certainly in many cases 'environmental' and also 'educational' they apply in most instances in very limited areas.

Table 2 shows the total number of exclusions and the remainder by region.

TABLE 2

<u>Region</u>	<u>Organizations excluded</u>		<u>Remainder of Organization</u>	
	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>
North America	77	10	129	24
Western Europe	208	29	162	30
Australasia	64	9	95	18
South America	21	3	27	5
Asia	71	10	31	6
Middle Asia	175	24	38	7
Africa	76	11	40	7
(South Africa)	25	3	17	3
Eastern Europe	7	1	4	-
Total	724	100	543	100

Of the remaining organizations, it is interesting to note that the 'developed' world represented by North America, Western Europe and Australia has 72% leaving only 28% active in the developing world. The 31 organizations of Asia are working in a region of some 360 million people whereas the 95 organizations of Australasia are working in a region of only 16 million.

For the remaining 543 organizations an attempt was then made to assign attributes or fields of interest, the focus or target of their educational activity and the means used. The results are shown in Appendix I. The method used was simply to record the organization in the appropriate column if it was applicable. If an organization was active in several fields (natural resources, pollution, energy), used several means for its educational purposes (films, magazines, lectures), reach several different groups of people (general public, youth), it was recorded in several columns. The table is not amenable to statistical analysis but some general conclusions may be drawn.

The organizations of the developing world are mainly concerned with general environmental matters such as natural resources, and conservation. This probably reflects the financial constraints felt in many of these areas and their subsequent inability to concern themselves with more specific issues. However some emphasis is noted, especially in Africa and South America, in the areas of wildlife and national parks, reflecting the continued existence of wildlife in many developing countries and commendably showing a concern for its protection.

Some differentiation of regional emphasis can be noticed. In Asia there appears to be more concern with the human problems, technology and industry - perhaps reflecting the tremendous pressure of people on land in that region. The emphasis on forests and water resources in Middle Asia is perhaps related to a concern for the depletion of those resources in the Himalayan area. The organizations of the developed world are also strong in the general environmental fields but some areas of specialization may be identified.

In Western Europe and North America there is a strong emphasis on energy. This takes the form of opposition to development of certain types of nuclear energy and interest in the development of alternative energy sources, such as solar energy, tides, wind. Preoccupation by a fairly large group of organizations with 'lifestyle' in this region is perhaps a comment on a growing dissatisfaction with the 'consumer' society and the search for some other way of life more consistent with environmental equilibrium. Likewise the concern with pollution of all kinds in the western world reflects the pressures of an industrialized society on people and resources. It is possible to discern a greater diversification of interests in Western Europe than in either North America or Australia.

A wide range of means are employed by organizations to 'educate', ranging from small publications to books, exhibits, audio-visual programmes, conferences and campaigns (see Appendix II). The scale of educational operations varies enormously, and few generalizations can be made. In the developed world there is an expected emphasis on the more expensive means of communication such as audio-visual programmes, conferences and seminars and exhibits. The predominant effort throughout both developing and developed world is aimed at the general public but in most areas efforts are also made to influence people in positions of power, legislators and businessmen. There appear to be commendable efforts to educate young people in the developing countries, especially in Africa and Middle Asia.

It would be appropriate at this point to mention certain organizations specifically which are especially effective in the environmental education field. Five organizations have been selected from the same number of regions: South America (Peru), Africa (Kenya) and Middle Asia (India) in the developing world; North America (Canada) and Eastern Europe (Poland) in the developed world.

One of the many organizations that stands out from the South American sample is the Association for Protection Against Environmental Pollution in Lima, Peru. It is involved in both ongoing activities and in special projects such as Tribute to U.N. Day. Through its radio, television and press campaigns a national awareness for environmental problems has been created. The association has produced bulletins and a lecture series on environmental pollution and has organized a training school for experts in ecology and environmental pollution. A sixty minute film on pollution has been widely circulated and a university law course on legislation and pollution was introduced. Hospital seminars on 'Habitat' were organized by this group. A resource center contains books, periodicals, papers and newspaper cuttings. With a relatively small annual budget, the Association for Protection Against Environmental Pollution has made tremendous progress in the environmental education field.

Pollution Probe in Toronto, Canada is another exemplary NGO. One thousand members are involved in a variety of activities that include publishing resource material for schools, a national campaign for alternative energy sources, work to reduce solid waste, producing guides for twenty environmental tours in Toronto, an information campaign to alert the public about environmentally damaging consumer products and packaging. It has produced films on various issues, books and reports. A

bulletin is published quarterly. Its efforts within the community and the informal sector as well as within the schools are commendable.

Environmental action at the grassroots level through a field action project, "PEDEP" - Population, Environment, Development Education Project is the aim of the Durgapur Environment Protection Programme. It has organized a very successful Environment Week, hosted regular seminars and workshops on environmental action, produced audio-visual materials and books and leaflets on the environment. It has introduced water and air pollution experiments into schools and conducted air pollution surveys. It has made a great contribution to environmental education in the Durgapur region of West Bengal, India.

The Committee for Management and Protection of the Environment in Warsaw, Poland is involved in a range of environmental issues, and is primarily directed at the student population. Yearly summer camps that focus on environmental education and scientific camps are sponsored by this organization. It has hosted two international seminars, "Youth and the Environment" and "The Role of European Youth in Environmental Protection". Slides have been produced and a quarterly newsletter is sent out to members. It is made up of a completely volunteer staff which is working hard to bring to the attention of students in Poland many important environmental issues.

The Wildlife Clubs of Kenya Association is working to spread interest in wildlife and an understanding of the importance in conserving natural resources. Activities include student trips to national parks, seminars, provision of books and materials to schools, anti-poaching demonstrations, clean-up campaigns, field courses and workshops for students and teachers, and presentation of a weekly radio programme. A mobile film unit presents films and slide shows to wildlife clubs throughout Kenya. Leaflets, sourcebooks and a monthly newsletter are published by this organization. It has 14,000 active student members who are making a very worthwhile contribution to environmental protection in Kenya.

Many other organizations are doing particularly outstanding work in the field of environmental education. Among these are the Greek Company (Greece), Watch (England), Keep Australia Beautiful, the Youth Environmental Programme for West Africa (Nigeria), Environment Training Programme (Senegal) and The Irish Conservation Society (Ireland). But all organizations have valuable information to offer in their own way, and it is hoped that though this conference and/or the Environment Liaison Centre, information, ideas and expertise can be shared.

An overview of NGO involvement in environmental education would not be complete if it were based only on the ELC Profile Survey. The ELC contains a wealth of information and addresses from which other information about NGO's can be extracted to improve the value of the overview. Because of the small number of responses from the developing countries to the Profile Survey, these sources were used to increase the number of NGO's in the sample so that the information would be more useful and perhaps more generalizable. Unfortunately, the information for these NGO's was extracted from address lists and referral lists, so

not as much detail was made available to analyse compared to the information included in the Profile Survey. Consequently, organizations may be involved in a number of environmental fields, but only one or two would be obvious enough to include in the analysis. Target populations and means for disseminating information are not included at all.

A total of 186 additional organizations were studied. Table 3 shows the regional distribution of these.

TABLE 3

Supplementary Organizations by Region

Africa	42
South America	42
Asia	40
Middle Asia	30
Eastern Europe	32*

The interest in Africa is centered around general environmental concerns, nature conservation, population and wildlife. This also applies to Asia, but an even greater number of NGO's in Asia were involved with general areas of interest. It is surprising that none of the organizations in Africa are involved directly with national parks since there were many in the Profile Survey working in this area - in fact more than in any other region outside of the developed world. Two Japanese organizations are involved in some aspect of lifestyle, this probably reflects their increasing western orientation and intense developmental activity. Interest in wildlife is highest in the Middle Asian region which is not necessarily consistent with their efforts according to the Profile Survey. The category of technology and industry receives the most attention in the Middle Asian countries; this might be due to the high interest, especially in India, in intermediate or alternative technology. The South America region has apparently strong interest in the conservation of nature. A total of 28 organizations of the 40 in the sample indicate environmental education activity in field. This is consistent with the results of the Profile Survey. Table 4 shows environmental attributes according to region.

More patterns emerge from consideration of the total from both the Profile Survey and the supplementary list shown in Table 4. However, it is important to bear in mind the limited amount of information available from the latter source so any conclusion would be tentative at best.

The proportion of NGO's in Africa to its population is higher than any other region. The interest in wildlife, national parks and natural resources which emerged from the Profile

* Eastern European countries will not be discussed because the source for these organizations did not reveal any descriptive data.

TABLE 4

Environmental Attributes of NGO According to Region
Address Lists (AL) and Total (T)

Types of Organizations	Africa		South America		Asia		Middle Asia	
	AL	T	AL	T	AL	T	AL	T
Air Pollution	0	3	4	5	0	2	0	5
Water Pollution	0	4	0	1	2	6	0	4
Noise Pollution	0	0	0	0	0	1	0	1
Energy	0	1	0	0	1	5	1	3
Food & Agriculture	3	10	0	4	0	5	0	0
General	7	22	16	16	19	25	10	16
Human Health & Well Being	0	8	0	3	0	8	0	1
Human Settlements	2	4	2	2	2	4	1	3
Land Use	0	5	0	0	0	5	0	2
Natural Resources	5	18	13	14	0	14	5	14
Population	7	14	6	7	3	10	5	10
Recreation & Leisure	0	1	0	0	0	0	0	2
Socio-economic Aspects	0	5	0	0	0	5	0	0
Solid Waste	0	3	0	0	0	1	0	3
Technology & Industry	2	4	1	2	2	11	5	6
Wildlife	6	18	6	1	3	6	8	16
Transportation	0	0	2	12	1	1	0	1
Water Resources	0	3	0	0	2	6	0	6
Third World	0	0	0	0	0	0	0	0
Ancient Monuments	0	0	0	0	0	0	0	0
Human Rights	0	0	0	0	0	0	0	0
National Parks & Protected Areas	0	9	2	6	1	4	0	7
Lifestyles	0	3	0	1	2	6	0	1
International Peace	0	0	0	0	0	0	0	0
Conservation	9	26	28	38	11	19	7	24
Forests	0	3	0	3	0	2	0	10
	AL	T	AL	T	AL	T	AL	T
Number of Organizations	42	82	42	68	40	71	30	68

Survey is reinforced. The more advanced level of industrialization in the Asian countries is reflected in the greater pre-occupation with Technology and Industry, Energy and Lifestyle. Noise pollution was mentioned only once in Asia and Middle Asia, probably not an indication that it does not exist but that other issues are more pressing. Nature conservation stands out as a priority in the South American region. Few other categories exhibit any significant differences between regional areas. Although the data from the Profile Survey and the additional address lists allow only vague generalizations to be made, some valuable conclusions can be drawn. These show the importance of NGO's in the field of environmental education and their extremely valuable contribution to the international effort to foster understanding of environmental problems and their solutions.

Activity in environmental education appears to be relatively intense in most categories in the developed world. In the developing world there are more gaps; but these probably correspond to the economic and social priorities of the people and governments. However, the quality of the organizations and the urgency of their messages illustrate their praiseworthy efforts in this field. Many are using advanced techniques, for example, audio-visual equipment and the media to realize their goals. They often aim at the rural areas where most people live and their involvement with youth is commendable. Many organizations are attempting to promote environmentally sound legislation. The developed countries are also active in the fields which have become priorities to their people - problem areas resulting from the advanced state of their economy. Energy and water pollution as well as their accompanying socio-economic problems have become issues of these NGO's. Many organizations are concerned with depletion of natural resources, conservation of nature and wildlife and land use.

Funds and expertise are needed by organizations in the developing world to strengthen and support existing endeavors and to create new organizations where necessary. Environmental pressures, burgeoning populations and higher expectations of development will make this increasingly imperative in the years to come. Developed countries are continually facing new challenges to their lifestyles and ideas. Organizations will have to keep pace with technological and social changes and continue to fight against unnecessary consumption of resources and subsequent waste product disposal to ensure a healthy and sustaining environment for future generations. With continued and increased mutual support among NGO's in their environmental education activities, this objective will move closer to realization.

APPENDIX I

Attributes of Environmental Organizations

Number of Organizations by Region

Types of Organizations \ Regions	Regions								
	Africa	S. Africa	Asia	Middle Asia	South America	North America	Western Europe	Eastern Europe	Australia New Zealand
Air Pollution	3	1	2	5	1	8	14	-	8
Water Pollution	4	1	4	4	4	18	25	-	5
Noise Pollution	-	-	1	1	2	4	11	-	2
Energy	1	-	4	2	2	35	34	-	8
Food and Agriculture	7	4	5	-	2	13	19	-	6
General	5	-	6	-	2	31	33	-	16
Human Health and Well Being	8	3	8	1	3	7	13	1	4
Human Settlements	2	-	2	2	2	15	14	-	1
Land Use	5	-	5	2	4	30	10	-	4
Natural Resources	13	1	5	9	13	28	36	1	15
Population	7	1	7	5	3	12	7	-	4
Recreation and Leisure	1	-	-	2	-	8	6	-	3
Socio-Economic Aspects	5	-	5	-	2	13	19	-	2
Solid Waste	3	-	1	3	2	16	11	-	6
Technology and Industry	2	1	9	1	1	11	23	-	11
Transportation	1	-	-	1	-	11	18	-	-
Wildlife	12	6	3	8	9	36	33	-	11
Water Resources	3	1	4	6	4	19	20	-	3
Third World	1	-	-	-	-	3	14	-	3
Ancient Monuments	1	1	2	1	3	6	12	-	2
Human Rights	-	-	2	1	-	12	8	-	2
National Parks	9	4	3	7	8	21	16	-	8
Lifestyle	3	1	4	1	1	17	16	-	6
International Peace	-	-	-	-	-	3	4	1	2
Conservation	17	10	8	17	15	36	59	1	30
Forests	3	3	2	10	6	15	4	-	9

APPENDIX II

Means used by Organizations in the Educational Field

Number of Organizations by Region

Educational Techniques	Regions		Asia	Middle Asia	South America	North America	Western Europe	Eastern Europe	Australia New Zealand
	Africa	S. Africa							
Courses	3	0	2	2	3	2	10	-	-
Lectures	2	4	2	3	4	7	8	-	3
Publications	8	2	1	27	4	22	36	-	33
Monthly Publications	7	8	7	8	4	73	49	1	10
Annual or Semi-Annual Publications	9	3	6	1	5	7	33	-	2
Posters	4	4	2	9	7	16	27	-	7
Books	3	2	4	19	2	32	24	1	12
Articles	4	-	3	6	9	18	19	-	7
Reports	9	6	3	19	8	41	44	-	19
Exhibits	1	1	2	1	31	11	21	-	1
Research and Surveys	11	4	6	32	3	23	29	-	1
Museums	2	5	8	-	4	10	23	1	-
Resource Center	10	5	8	15	10	29	33	-	28
Referral Service	-	-	-	2	2	10	14	-	2
Audio-Visual	6	4	5	13	3	21	36	1	11
Radio	2	-	-	7	2	2	5	-	4
TV	1	2	1	2	2	6	5	-	2
Camps	3	2	2	6	4	11	6	1	3
Campaigns and Projects	2	1	1	6	2	3	9	-	9
Conferences Seminars	5	1	3	7	6	21	33	2	4
Public Meetings	1	-	4	1	-	4	6	-	4

ENVIRONMENTAL EDUCATION IN THE CONTEXT OF DEVELOPMENT

- AN ENDA PERSPECTIVE

by Liberty Mhlanga

by Liberty Mhlanga.

I wish to thank the organisers of this Workshop - the ELC, UNEP, and others, for the honour and privilege of granting me the opportunity to share some of my thoughts and modest experience with you.

I will attempt first to give some idea of how I perceive environment, secondly what I think environmental education should be, thirdly, give some examples of activities I have participated in which have implications for what we can do together in environmental education once we leave Geneva.

Awareness of the environment comes first of all through the constant attack to which it is subjected, e.g. when resources are extracted and shipped elsewhere, with no concern for the future economies of the people in the area, or when the forest is receding, soils being eroded and exhausted and the desert is advancing, then surely one can speak of aggression in a multitude of forms, against both man and nature.

Yet at the same time the environment conjures up a vision of potential, from which one can draw physical and moral sustenance. Not only does the environment supply the material necessities of life, such as crop plants and raw materials for farming, fishing, hunting and building homes, but also something which goes beyond the material necessities of life. Many of our cultures have evolved out of man's confrontation with his environment, and their specific features reflect the impact of the environmental element.

It is therefore rather surprising that, more often than not, people have no clear notion of environmental problems or of the possibilities which exist for improving both villages and urban areas for the benefit of their inhabitants.

It may well be that the concept of the environment, at least in its current fashionable guise, is considered somewhat alien, and mainly concerned with such industrialised phenomena as the campaign against traffic jams, noise and pollution and the plea for more open spaces. Of course these problems do exist in our countries, and they already claim our attention. But the main focus is different. It would be surprising if environmental problems could be viewed in the same terms, despite different levels of industrialisation, social structures, and different town-countryside relationships. Nor is this all. The economic and social situations to be found in most of our developing countries are not purely fortuitous, nor are they the outcome of a historical process totally isolated from the outside world. The domination and exploitation of large areas of the so-called developing world, in the sole interest of external groups and forces, are directly responsible for the many-faceted onslaught on the environment, and for the under-estimation of the possibilities of developing and improving the same environment.

Summary of the speech by Liberty Mhlanga

Schools, in particular, as well as mass media, project the image of an imaginary environment, which tantalises the mass of the population while in fact only a minority can hope to have any access to it. Imported ideas and a certain distain for provisional and makeshift solutions prevent our people from seeing the very real potential inherent in our own rural and urban environment.

Our primary purpose must be to transform the environment for the good of its inhabitants, and certainly not to halt history in its tracks and keep tribesmen and wild animals in reserves for the greater pleasure - not ot mention photographic zeal - of a growing army of foreign tourists. Although modern and powerful means can, on occasion, assist in this transformation of our environment, there is no escaping the fact that large-scale operations directed to this end have so far produced more failures than successes. Even if the failures had been avoided, the gap would still remain between the scale of needs and the investment capacities of most of our developing countries even assuming that real effective foreign assistance were forthcoming.

In most developing countries it is unlikely that efforts to improve the environment can succeed, unless they are directly related to the needs and possibilities of the peasants and of the shanty-town dwellers. This means a radical departure from current training programmes, technology and project implementation practice, as well as from the existing type of relationship between officials and the populace. For this, it is essential to determine the specific conditions for the eco-development of each milieu.

The Environmental Approach

While in our developing countries, modernised zones do exist, what can be called a 'peasantry' still exists, often living in a threatened environment. In the case of many of these 'peasantries' one can still speak of agricultural or pastoral eco-culture zones. The principal problem here appears to be the ignorance in which these eco-cultures are maintained and the drainage process on them caused by the 'modern' impact - leading to wasted resources, social disintegration and rural exodus. As NGOs, our major efforts should be concentrated at this more modest level of rural and urban districu eco-cultures. It is the people who count in this approach. The environmental approach thus provides first an input of new elements, the notion of ecosystem and data provided by the natural sciences, as well as aspects of sociology, such as systems analysis. Secondly, it provides a new weighting of the factors taken into account, and calls for more sustained attention to people's knowledge of their environment, and their interpretation of this environment. Finally there is a shift in emphasis. Central and bureaucratic decisions give place to local decisions, in which the population has a say. There is less emphasis on increasing the monetary incomes, conventional profitability criteria and rates for return and more emphasis on well-being, on the setting in which people live and quality of their lives. Concern is still centred on problems of economic and social development but the order of priorities, with regard to the different aspects of these problems, is a new one.

Summary of the speech by Liberty Mhlanga

A new definition of the aims of development begins to take shape - stress is no longer placed on increasing trade, but on improving nutritional and health standards, on self-training and on decision-making by those directly concerned. This should, in my mind, be the goal for involvement in Environmental Education. Such an approach allows the eco-culture to adapt and restructure in a dynamic way rather than disintegrating under the pressure of change.

This environmental approach agrees with the concept of Environmental Education outlined in ENVED 7 p.6 - "Environmental Education is centred around the environment, which becomes its field of study, application and action. Education must aim at acquiring knowledge about this environment, at improving and transforming it for the greater good of the community. In this perspective, environmental education must have a place in national education and training plans to promote a balanced socio-economic and cultural development in the nation. It concerns the problems caused by the environment and seeks overall solutions that take care of social and individual values, as well as local constraints, while making use of the available technology and resources. Environmental education should promote the establishment of a system of values in harmony with the cultural and traditional environment. It should avoid alienation which makes people only too ready to adopt imported models ill-adapted to their environment".

On a national level environmental education should be considered a tool which can be used for creation and participation. It can assist the integration of the educational system, national plans and environmental improvement, stimulating a current of steady interchange among educational institutions and other sectors of the community. This should be viewed as a process which starts with local needs and potentialities, gives priority to decisions taken by the group of people concerned with the rational use of the physical environment, the up-grading of the local resources and local under-employed manpower. To facilitate communication up and down the social stratum, the local language should be the medium for environmental education.

Now we need in this workshop to formulate a simple, modest, straight-forward strategy for each to put his/her resources to the disposal of all of us and for all of us to be mindful of individual needs so that we can together improve the quality of life of our people without which Environmental Education has no purpose or meaning.

- A) Firewood problem - pyrolitic convertor in Ghana (Kumasi Institute of Technology)
- b) Health problems - pharmacopaea in Ghana and Botswana
- c) Popular participation - theatre in Botswana and Niger (CESAO)
- d) Technology - Sri Lanka, Senegal, Botswana and 3rd World

- e) Pollution in cities - Cairo
- f) Pollution in region - threat to test nuclear devices and NGOs and other destructive development, e.g. Sudan, Jonglei Canal
- g) Resource mapping - Tanzania, Kenya, Zambia, Botswana
- h) Shanty-towns - in Africa and Latin America
- i) Exploitation and development of forest areas - Africa, Asia and Latin America
- j) Primary, secondary school and university, etc. materials in EE
- k) Participation in teaching USAID field personnel
- l) Ocean resources in Caribbean, Atlantic, Indian and Pacific Oceans with Sierra Club
- m) ENDA publications and contributions of each member, organisation or region and for local insights, dissertations and research findings
- n) ENDA's "South-South" proposal.

CHALLENGES AND OPPORTUNITIES OF THE TBILISI

INTERGOVERNMENTAL CONFERENCE ON ENVIRONMENTAL EDUCATION

by Victor Johnson

NGO WORKSHOP FOR CO-OPERATION IN ENVIRONMENTAL EDUCATION

Geneva, 28-30 October, 1977

"Challenges and Opportunities of the Tbilisi
Intergovernmental Conference on Environmental Education"

by Victor Johnson

Mr. Chairman, my dear Colleagues, Ladies and Gentlemen,
I would like to begin by thanking you most warmly for giving
me the pleasure and honour of addressing you.

This workshop is a logical follow-up to the Tbilisi Conference
which has just ended, and we in UNEP are happy that it was
possible for us to be associated with the Environment Liaison
Centre in this endeavour. I hope that our modest contribution
towards making this meeting possible will be seen as a true
reflection of our concern for the environment, and our determination
to use our catalytic role to further the development of environmental
education.

For the sake of those of you who were not at Tbilisi, it is
perhaps necessary for me to comment reflectively on the
background to this first Intergovernmental Conference on
Environmental Education. Tbilisi was the culminating point
of a joint UNEP/UNESCO international programme on environmental
education which was launched in January 1975 as a result of
the 1972 Stockholm Conference on the Human Environment. The
first phase of the programme is characterised by research and
development activities, and includes the preparation and
publication of Trend Papers in environmental education, pilot
projects developed in various parts of the world, the establish-
ment of an international network of institutions and professionals,
and the publication of a quarterly newsletter "CONNECT". An
International Workshop of environmental education was held in
Belgrade, Yugoslavia, October 1975. It produced the now famous
BELGRADE CHARTER which sets out the guiding principles for
environmental education. This was followed by a series of
regional seminars at which local problems and issues related to
the environment and the education and training that should go
with these were discussed and recommendations made. The output
from this first phase of the International EE UNEP/UNESCO
programme were presented as reference documents at the Tbilisi
Conference.

1. THE FINAL DAYS AT TBILISI

The closing stages of the Tbilisi Conference produced intense
activities towards harmonizing the respective roles of UNESCO
and UNEP in the area of environmental education, and providing
a suitable framework for inter-agency cooperation. I would
like to take this opportunity to stress that the mandate given
to UNESCO for general education is well-known and is unquestioned;
in this respect, UNESCO is naturally expected to take a leading
responsibility for the development and implementation of environ-
mental education programmes.

- cont. -

UNEP, on the other hand, was established as a response to the need for inter-agency action and coordination in environmental fields. UNEP therefore has a mandate to catalyze action and coordinate activities in matters of the environment, including environmental education which is not only an inseparable component of the environment programme, but also an indispensable tool for environmental management. The application of UNEP's catalytic and coordinating role in the area of environmental education and training takes a number of forms including:

- (a) problem-identification through periodic reviews, data collection for gaps in action and issues to be considered;
 - (b) intellectual catalysis in the form of ideas generated, concepts, principles, models, strategies and approaches;
 - (c) programme development for activities directed towards solving problems filling the gaps and tackling issues.
- and (d) financial support through the provision of seed "money" to get programme activities off the ground.

So, far from being a funding agency, UNEP mobilizes its technical, intellectual and financial resources in order to stimulate action and generate activities which are compatible with the goals, objectives and strategies formulated for environmental education and training.

On the final day of the Conference, 41 recommendations were adopted. 5 of these were concerned with the role of education as a tool for environmental quality control, with special reference to the environmental impact of development. There were 16 recommendations on strategies for the development of environmental education at the national level focussing on goals, objectives and guiding principles, as well as functional tasks such as:-

- teaching
 - curriculum development
 - education of teachers and other professionals
 - the work environment
 - vocational education
 - research and evaluation
- and - dissemination of information

International and regional cooperation produced 20 recommendations which made provision for:-

- (i) improving the existing infrastructure for information and exchanges in the field of environmental education;
 - (ii) social, economic, cultural and psychological factors relevant for environmental education;
 - (iii) the role of Inter-governmental Organizations;
- and (iv) cooperation with Non-governmental Organizations.

During the closing session of the Conference, a TBILISI DECLARATION was presented; it stressed: the imperative need for ecological balance in nature; solidarity and equity in the relations between nations as the basis for a new international order; a holistic approach to environmental education, rooted in a broad interdisciplinary base, to produce a perspective of interdependence between the natural and man-made environments; and environmental education as a life-long education for individuals as members of the Community in an active problem-solving process, encouraging initiative, a sense of responsibility and commitment to build a better future. The Tbilisi Declaration, which appeared analogous to the Belgrade Charter, was adopted by acclamation.

2. THE ACHIEVEMENTS AND LIMITATIONS OF TBILISI

The objective of the Conference, as stated in the main working document (ENVED/4), was to make recommendations concerning measures which could be taken at all levels to promote environmental education. We had hoped that, as an ultimate objective, the Conference might have set itself the task of producing a PLAN OF ACTION or the framework for such an implementation plan. I shall however have a little more to say about this later.

Statistics of participation at Tbilisi are as follows:-

(a) There were 66 member states represented out of about 150 expected. This represents a 44% response rate; of these there were:-

(i)	14 out of 33 from Africa -	(42%)
(ii)	6 out of 18 from Arab States -	(33%)
(iii)	9 out of 22 from Asia -	(41%)
(iv)	29 out of 33 from Europe -	(88%)
(v)	8 out of 24 from Latin America -	(33%)

(b) 2 non-member states also participated (Holy See and Swaziland);
8 Organizations of the UN system;
3 other intergovernment Organizations;
and 20 international non-governmental Organizations under whose umbrella some of you were able to attend.

Altogether there were 265 delegates, plus 65 representatives and observers, making a total of 330 participants.

These figures may not look too bad; but let us examine some of the possible reasons for this low turn-out:-

(1) The information/communication strategy used did not appear to have been effective, even though a UNEP mechanism to assist in this respect might have had some significant effects.

(a) For a World inter-governmental conference of this type (the first in EE ever), one might have expected a much wider world-press coverage;

.....cont.

- (b) Some member states received information/invitations too late to do anything about it. For others, the administrative processes within the countries themselves impeded speedy action.
- (2) Secondly, documentation for the Conference, although known two years ago after Belgrade, started too late and proceeded at too slow a pace for member states to gain maximum impact.

Furthermore, without even the semblance of an action plan such as was the case for the UN Desertification Conference, some countries did not take us seriously, and probably felt that this was going to be one of those conferences which produce hundreds of resolutions/recommendations without a serious basis for implementation.

- (3) Thirdly, for a number of small economically-poor countries, Tbilisi was too far away for them to be able to afford sending a delegation to the Conference. This fact was brought to our attention too late for any meaningful action to be taken.

2.1 The Achievements of Tbilisi

- (a) The Conference brought together for the first time government representatives, agencies and organizations to discuss a complex educational dimension which, for many people, is not yet fully defined with the sharpness and clarity necessary for universal understanding. The background documents, although inadequate in some respects, provided a suitable framework and a basis for understanding.
- (b) A number of countries (18 of them) did a fine job of producing detailed and exciting country reports. There were also some excellent statements read by delegates and representatives of agencies and organizations.
- (c) There was a working consensus between:
 - i) developing and industrialized countries
 - ii) East and WestPolitics did not seem to interfere with the work of the Conference.
- (d) NGO participation and recognition in the area of EE, even if no special provision was made for this category of participants, is a great step forward.
- (e) The Conference recommendations touched upon crucial issues; whether they may be considered concrete enough, or whether they are an improvement on Belgrade or the regional seminars, is debatable. Nevertheless, they could become the basis for an action plan to be worked out later.
- (f) The Tbilisi Declaration, like the Belgrade Charter, reflects the universality of environmental problems and issues, and points towards the possibility of a global strategy towards their solution.

2.2 Setbacks

- (a) The Conference did a good job of trying to harmonize inter-agency cooperation and institutional arrangements; its failure to produce adequate guidelines for implementation may be considered one of the set-backs.
- (b) The lack of proper arrangements for small-group working was a distinct disadvantage. The working of the Commission and the Plenary sessions were sometimes indistinguishable since both used the same room, the same setting and identical facilities. Interventions in the Commission often took the form of plenary statements.
- (c) The noticeable absence of such important UN agencies like WHO, UNDP, World Bank, etc. was unfortunate as these, not only have significant environmental education and training components in their programmes/country projects, but also have a vital role to play in the evolution of a global plan of action for EE.
- (d) Inter-agency conflict was apparent during a number of interjections during the conference. This unfortunately left the unhappy impression of a lack of definition or poor conceptualization of roles and responsibilities and of the true meaning of international cooperation.

3. AN APPROACH TO POST-TBILISI ACTION

Although Tbilisi has not produced an Action Plan as such, we believe that the basis exists for the development of one for the promotion and development of environmental education nationally, regionally and internationally:-

3.1 Elements of an Action Plan

(a) Theoretical Perspective

We see the environment as a system of interacting components, broadly comprising bio-physical and socio-cultural elements. For this reason, the systems approach to environmental problems seem to hold the best promise for the application of scientific, methodical approaches to analysis of these problems and strategies for their solutions.

Similarly, we see Environmental Education from a multi-disciplinary perspective. In the final analysis, it is the interaction among concepts, phenomena, experiences, principles, methodologies and, ultimately, disciplines that make environmental education inter-disciplinary and gives it its unique characteristics. Environmental education should therefore be also approached from a systems viewpoint.

(b) Operational/Functional Perspective

In order to begin our task, we take a look at the aims, objectives and strategies for developing environmental education and ask the following questions(not necessarily in the most logical order):-

- (i) What is our TARGET? (What is to be achieved?)
- (ii) What are the alternative methods or routes that will take us to this target?
- (iii) What is the best, most efficient, and least costly route to take? (i.e. to maximize cost effectiveness)
- (iv) What are the resources available? (human, material, technical, financial)
- (v) What are the needs, the most pressing ones in terms of priority?
- (vi) Where do we begin? (in terms of ordered priority)
- (vii) What are the steps to be taken to satisfy the needs and reach our target?
- (viii) Who are the operators/agents at each of these steps? (Who will do what?)
- (ix) What is each step in the process going to cost?
- (x) How is it going to be financed? (Who is going to pay for what?)
- (xi) What is the time frame? (When is what going to be done?)
- (xii) When and how do we know we have reached the target? (How is the output going to be evaluated?)

These are the kinds of questions which must be asked and answered before we can begin to formulate a detailed comprehensive plan of action.

The application of systems approach to Environmental Education therefore requires us to clearly identify the following after locating the problems (needs):-

- (1) INPUT (Resources)
- (2) PROCESS (Methods/Procedures/Steps)
- (3) OUTPUT (Targets, Evaluation)

It is important to recognize that an intermediate step produces an intermediate output in the process of safeguarding the quality of the environment. This intermediate output consists of:- HUMAN ATTITUDE and HUMAN BEHAVIOUR; these affective outputs, which are themselves the objectives of environmental education, cannot always be quantified, and, in spite of recent advances in psychology, are not easily measurable. Qualitative indices do not always give the high degree of precision which systems analysis requires with the analytical tools presently at our disposal.

3.2 A UN Programme of Environmental Education

UNEP's strategy would be to use its catalytic and coordinating mandate to stimulate the development of truly UN Programmes for EE in which each interested agency or Organization will have a role to play.

... cont ...

At the moment, a general overview of environmental education and training, followed by an in-depth analysis of environmental education, is in progress. Following Tbilisi, an analytic review of the Conference recommendations will, together with the results of the overview and the in-depth analysis, provide the basis for a revised UNEP strategy which will be presented for approval to the sixth session of our Governing Council next May. The mechanism by which the new EE programme will develop, however, is known as Thematic Joint Programming. During this exercise, all the agencies which have an operational interest in EE will sit down together, study the analyses of the problems, issues, etc. and formulate a programme, delineating the responsibilities and action to be taken by each agency, depending of course on its mandate and area of competence. We believe that, with the evolution of such a programme, the issues of respective roles, of coordination for EE programmes and activities will be resolved, and the mechanisms for inter-agency coordination and inter-sectoral collaboration will be established.

4. THE CHALLENGES AND OPPORTUNITIES OPEN TO NGOS

It would appear that one of the advantages NGOs have over IGOs and UN agencies is that of flexibility and relative freedom from the constraints of political and diplomatic considerations. One also suspects that in many cases, within the activities related to their functional tasks, NGOs come closer to realistic contacts with local communities and problems than might be conceivable with international agencies. If this is so, then I think that these advantages should be utilized to the fullest extent possible for maximum impact.

To this end, it is my view that, in addition to specific activities in the area of EE at the formal school level and EE at the institutionalized non-formal level, NGOs have a special role to play, and are uniquely placed to deal with two important areas:-

- (a) EE for out-of-school Adults:
- and (b) EE for " " " Youths.

I have specially selected these two areas because it is my observation that socio-cultural considerations and other factors sometimes make it difficult for international bodies to gain a conceptual grasp of certain problems and may therefore become functionally ineffective.

I would particularly like to draw your attention to two documents which you might find useful in considering programme development in these areas. In fact one of them is actually on display at the back of the hall. They are:

- (i) "Environmental Education Programme for Adults" by Lars Emmelin, University of Lund, Sweden.
- (ii) "Report of a Working Party on Youth and the Environment" (Nairobi, March 1977 - blue cover).

At the Tbilisi Conference, NGOs were mentioned in 10 of the recommendations adopted. What is even more important is that of these (Recommendation 34) deals exclusively with cooperation with Non-governmental Organizations.

I would like to take this opportunity to urge you to use these recommendations together with the synthesis of discussions at the Conference, and useful elements in the reference documents as a basis for developing your own individual and cooperative action plans for environmental education. For my part, I would like to assure you of UNEP's continued cooperation. We will continue to make ourselves available to you for help and advice; our catalytic role will be used to further the cause of environmental education, to promote actions and activities which will lead successfully to our common goal.

Finally, I would like to take this opportunity to express our appreciation to the Environment Liaison Centre for organizing your participation at the Tbilisi Conference, and for making it possible to hold this workshop immediately afterwards. You have earned for yourselves the distinction of being the first group to meet and formally consider post-Tbilisi action so soon after the end of the Conference, even before the delegates reach their homes. This is a good sign; and I hope that the enthusiasm generated and momentum gained will be sustained at a high level. I am deeply grateful to you all for accepting the challenge of this opportunity, and I look forward to continued friendship and cooperation in the years to come.

VOIJ/CRP

REPORT ON THE INTERGOVERNMENTAL CONFERENCE ON ENVIRONMENTAL EDUCATION

AND THE

WORKSHOP FOR ENVIRONMENTAL EDUCATION COOPERATION

prepared by the Environment Liaison Centre



Environment Liaison Centre,
P.O. Box 72461,
Nairobi, Kenya
Telephone: Nairobi 24770

REPORT ON THE INTERGOVERNMENTAL CONFERENCE ON ENVIRONMENTAL EDUCATION AND THE WORKSHOP FOR ENVIRONMENTAL EDUCATION COOPERATION

INTRODUCTION

The Environment Liaison Centre (ELC) and the United Nations Environment Programme (UNEP) entered into a joint programme to sponsor developing world non-governmental organisation participation in the Intergovernmental Conference on Environmental Education held October 14-26 1977.

Twenty NGOs from seventeen developing countries were sent to the Conference. Following the Conference, they were flown to Geneva for a follow-up NGO Workshop on Environmental Education held October 28-30, 1977. A list of the sponsored NGOs are shown below.

An International NGO Steering Committee on Environmental Education was formed at the Workshop. A communications network has also been created providing for the sharing of information between NGOs on Environmental Education. The Environment Liaison Centre was chosen to coordinate this effort until April 1978 and has begun a follow-up programme which includes distributing a monthly newsletter. The first two issues were to stimulate feed-back from the Workshop participants - this is the third issue and the first for distribution to all who are interested in corresponding about environmental education.

The purpose of the ELC project is to encourage NGOs, especially those in developing countries, to share appropriate environmental education experiences, resources and strategies for the stimulation and adaptation of other NGOs as they develop their environmental education programmes.

NGO Representatives Attending The Conference and Workshop With Sponsorship From ELC/UNEP

Asian Environment Council, Thailand; Viroj na Bangchang

Bureau of Asian Affairs, Philippines; Amando Kapauan

Caribbean Conservation Assoc., Barbados; John Connell

Chamber of Architects, Turkey; Sùheyil Kireak

Consumers Association of Penang, Malaysia; Irene Fernandez

Costa Rican Association for the Conservation of Nature (ASCONA) Costa Rica; Adelaida Chaverri

Environment Training Programme (ENDA), Senegal; Liberty Mhlanqa

Family Planning Association of Sri Lanka; Dayanath C. Jayasuriya

Indian Environment Society, India; Desh Bandhu

Indian Youth Population Coalition, India; K.M. Susai Benjamin

International Youth and Student Movement for the United Nations (ISMUN), Argentina; Delmar Blasco

Jeunes Science Tunis, Tunisia; Faycal Ben Hassine Bey

Mauritius National Youth Committee for Environment and Conservation, Mauritius; Rajen Awotar

National Christian Council of Kenya, Kenya; Mary Opiyo

National Trust for Fiji, Fiji; Uday Raj

Science Education Programme for Africa (SEPA), Ghana; Hubert Dyasi

World Federation for Democratic Youth (WFDY), Hungary; Peter Reinhardt

improving the quality of life.

(d) There was a need to work together within geographical region in supporting the development of environmental education. The structure of regional coordination was left for later discussions; however, it was suggested that the existing regional offices of UNESCO and UNEP would be appropriate centres for the various regions.

40 non-governmental organisation representatives attended the Conference. 35 came from outside the USSR. Almost 50% were representatives sponsored by ELC/UNEP.

Daily meetings were held each morning by the ELC, where the NGOs reviewed Conference documents, were briefed by various invited government officials and planned strategies for input into the Conference proceeds. Valuable assistance was provided by UNEP officials, including Mr. Gary Herbertson and Mr. Victor Johnson. An excellent rapport was established by the NGOs with many of the speakers which led to continuing dialogue throughout the Conference.

The morning meetings were open to all NGOs and provided a focal point for NGO effort at the Conference, where there otherwise would not have been one.

PART I

The Intergovernmental Conference on Environmental Education, Tbilisi, USSR, 14-26 October 1977

The Conference was sponsored by UNESCO and UNEP for government representatives. It was the first international governmental conference on environmental education. Non-government representatives attended as observers, although those whose organisations were affiliated to UNESCO had the right to speak from the floor when invited.

In total, there were 41 recommendations from the Conference which are being sorted and analysed by UNEP and UNESCO before publication. The main areas of agreement coming from the Conference were:

(a) Environmental education was not a separate discipline of its own, but an essential part of all disciplines in the formal education system.

(b) Environmental education was important in the non-formal education of out-of-school youth, and certain socio-occupational groups who play an important role in preserving and improving the environment such as engineers and architects.

(c) For all sections of society, environmental education was seen as a vital support in identifying, understanding and preventing environmental problems, and in

The NGOs met with many of the national delegations and conveyed NGO concerns about environmental education. Many spoke to delegates representing their own countries and regions about the needs as perceived by the people in their regions. NGOs from the developing world also had great success in conveying their concerns to delegations from the developed countries. Two of the ELC/UNEP NGOs were the only people at the Conference representing their regions, Uday Raj for the Pacific and Senator John Connell for the Caribbean. Seven of the ELC/UNEP sponsored NGOs attending the Conference were the only representatives of their countries: Mauritius, Sri Lanka, Costa Rica, Barbados, Fiji and Argentina.

International NGOs affiliated to UNESCO were invited to make statements to the Conference. Four of these statements were made by ELC/UNEP sponsored representatives. They were:-

Delmar Blasco - ISMUN, Argentina

Ben Hassine Bey - Jeunes Sciences, Tunisia

Mary Opiyo - Afrolit, Kenya

Peter Reinhardt - WFDY, Hungary

Some others who spoke were:-

Alfred Hoffman, International Union for the Conservation

C.A. Adewole, African Social Studies Programme
Raymond Smyke, World Confederation of Organisations of the Teaching Profession (WCOTP)

Birgith Sloth, International Youth Federation for Environmental Studies and Conservation

Their statements were well-received and were accepted as positive contributions to the Conference.

As a result of the NGO presence and participation the Conference was sensitized to the important role played by NGOs in environmental education. The following recommendation was one of the results:

"CONSIDERING the important role of non-governmental organisations and voluntary bodies in the field of environmental education at the local, national, regional and international levels;

STRESSING the desirability of enlarging the opportunity for democratic participation in the formulation and execution of programmes in the field of environmental education;

BEARING in mind that the efficacy of the work of all inter-governmental organisations is enhanced by the activities of non-governmental organisations and voluntary bodies.

RECOMMENDS:

1. to Member States that they should encourage and support non-governmental organisations and voluntary bodies at the local, national, regional and sub-regional level and to make the best use of their capabilities and activities;
2. to national governments that they should create and encourage environmental awareness among organisations such as professional teachers' and other non-governmental organisations which deal directly with children and youth, so as to get such organisations involved in the formulation and execution of national education strategies;
3. to non-governmental organisations that they should incorporate environmental education activities into their existing programmes;
4. to UNESCO that it should cooperate closely with non-governmental organisations and support their relevant activities in the field of environmental education.

PART II

WORKSHOP FOR ENVIRONMENTAL EDUCATION, GENEVA, SWITZERLAND
28-30 OCTOBER, 1977

The purpose of the Workshop was to:

- (a) identify and discuss key issues from the Tbilisi Conference & consider ideas on how NGOs can be involved constructively in the Conference follow-up;
- (b) develop an on-going NGO network for environmental education. To facilitate sustained contact, information exchange, and international coordination where necessary.

The Workshop was designed to be flexible regarding agenda, style and topics to be discussed. The purpose was to give participating NGOs a major part in the decisions on how the Workshop should be run. Several meetings were held among the NGOs in Tbilisi to discuss these items. As a result a timetable and agenda were set and working groups were established on the following topics:

- a. Environmental Education and Non-Governmental Organisation Strategy.
- b. Non-formal Environmental Education.
- c. Formal and Professional Environmental Education.
- d. NGO Inter-Communication and the Use of Mass Media in Environmental Education.
- e. Environmental Education and Atomic Energy.

Materials Distributed at the Workshop

A report on the role of NGOs in Environmental Education entitled "An Overview of NGO Environmental Education Activities" was prepared by the ELC.

and distributed to workshop participants. Each of the sponsored NGO participants was required to prepare a paper on NGOs and Environmental Education in their region. These papers, along with other NGO contributions, numbered 35. They were reproduced and distributed to the Workshop participants.

Participation in the Workshop

The participants at the Workshop numbered 53 organisations. A breakdown of the numbers of NGOs represented, by region, is shown in the table. 20 of the participants were brought to the Workshop under the joint ELC/UNEP project. These 20 made up most of the developing country representation. Two United Nations Organisations were represented - UNEP and the ILO.

Workshop Recommendations

The Workshop recommendations represent a substantial step forward in NGO activities in EE in that a mechanism for cooperation in EE, especially involving developing country NGOs, is planned for. The recommendations contain guidelines for the setting up of a central organisation to coordinate the development of EE regionally by NGOs.

The resolution, and the recommendations concerning development regionally of environmental education, are given below:

RESOLUTION AND RECOMMENDATIONS 1.1 TO 5.1

Resolution

WHEREAS UNESCO meeting at Tbilisi considered the important role of non-governmental organisations and voluntary bodies in the field of environmental education at all levels AND recommended that such NGOs should incorporate environmental education act-

NGOs represented at the Workshop, by Region			
Regions	International or Regional NGOs	National NGOs	TOTAL
Africa	4	3	7
Asia & Indian Sub-Continent	2	6	8
Caribbean	1	0	1
Europe	18	8	26
Latin America	1	1	2
Middle East	0	1	1
North America	1	4	5
Pacific	0	1	1
	27	24	51
OTHER: UNEP and ILO			

ivities in their existing programmes.

AND WHEREAS a representative number of the same NGOs met at Geneva and considered the appropriate theoretical and practical frame-work in which they can best promote environmental education.

AND WHEREAS the said NGOs agreed that education (as defined by the Belgrade Charter) is basically training for living within a given environment AND that they should strive to cause the philosophy to permeate all sectors of formal and non-formal education.

AND WHEREAS UNEP has declared its commitment and willingness to assist global regional and national NGOs in their task of promoting Environmental Education.

BE IT RESOLVED that effective measures be taken to ensure that the environmental education work being done by NGOs nationally, and regionally, be continued and enhanced AND in particular that a project for funding to assist them in so doing be submitted to the United Nations Environment Programme AND that such a project be developed within the framework and guidelines in Appendices I-IV thereto.

APPENDIX I - Strategies Concerning a Central Organisation for NGO Cooperation in Environmental Education.

1.1 Recommendation to Establish a Steering Committee

1.1.1 During the remainder of the current ELC project a fully representative steering group of NGOs will be convened to consider the development and financing of a 3-year project to be developed by the ELC or another suitable organisation, the basis of which should be the recommendations below:-

1.2 Recommendation Concerning a Central Organisation

1.2.1 There is a need for a central organisation to facilitate regional work in Environmental Education.

1.2.2 The principal aim of this central organisation should be to encourage development of Environmental Education at the regional level.

1.2.3 A primary task for a new project will be to define the form the organisation of NGOs might take.

1.2.4 Any global (central) organisation must be:-
efficient

accessible - not only physically but in its organisation and philosophy

representative - of all the world, geographically and culturally.

1.2.5 We recommend that the steering group should consider first the establishment of this central body which could facilitate simultaneous global response to urgent EE problems, and have the following functions:

- (i) the distribution of information about the availability of EE materials and aids,
- (ii) the coordination of the distribution of the material itself,
- (iii) the ensuring of a record of the evaluation which the user NGOs make of the materials that they use,
- (iv) the performance of the classification and other library functions in connection with this material.

1.2.6 The work of the new body should pay particular attention to the patterns of existing environmental education in each of the world regions and to facilitate interchange between them, noting particularly the connection between environment and development.

1.3 Recommendation concerning the ELC

1.3.1 If the ELC is to become the central organisation referred to, it should have improved representation. By this we mean a reconstituted Board of Directors with a more accurate geographical and cultural spread.

1.4 Recommendation concerning UNEP

1.4.1 We welcome the initiative of UNEP in setting up the EE and Training Unit, and recommend that it works closely with the ELC during the remainder of the current ELC project.

1.4.2 These ELC/UNEP future operations should be much more guided by initiatives from the regions.

1.5 Recommendation concerning membership in a Central Organisation

1.5.1 All organisations represented in Geneva give serious consideration to becoming members

of ELC or another representative body, in view of the fact that such an organisation will eventually have to become self-financing.

A Steering Committee was chosen by the participants to guide the ELC in drawing up a project document to fund the suggested central coordinating body. The ELC was given a mandate to coopt other suitable people onto the Steering Committee. At present, the following are the members of the Steering Committee:

Faycal BEN HASSINE BEY, Jeunes Sciences Tunis, Tunisia

Delmar BLASCO, International Youth and Student Movement of the UN (ISMUN), Argentina

Adelaida CHAVERRI, Costa Rican Assoc. for the Conservation of Nature (ASCONA), Costa Rica

Irene FERNANDEZ, Consumers Association of Penang, Malaysia

Dayanath JAYASURIYA, Family Planning Association, Sri Lanka

Amado KAPAUAN, Bureau of Asian Affairs, Philippines

Ron TEN KORTENAAR, Institute for Environmental Education Netherlands

Liberty MHLANGA, Environment Training Programme (ENDA), Senegal

Cyril RITCHIE, International Schools Association, Switzerland

Birgith SLOTH, International Youth Federation for Environmental Studies and Conservation, Denmark

ELC - one representative

Other recommendations concern non-formal education, formal and professional education, communications and the mass media, all as they relate to NGO activities in EE, and all are in agreement with the Tbilisi recommendations.

PART III

Follow-up to the Conference and Workshop

UNESCO and UNEP

UNESCO and UNEP are in the process of analysing the recommendations of the Conference and representatives of each organisation are meeting in Paris in April to discuss action they can take.

As part of the follow-up, UNESCO has identified several priority areas for international cooperation to encourage the formation and integration of environmental

education with formal and non-formal education. Four of these priority areas are as follows:-

- (1) Training of research workers, educators and planners to carry out programmes in environmental education.
- (2) Creation of new programmes and materials for environmental education.
- (3) Research on environmental education at the national, regional and international level.
- (4) Encouraging the exchange of information on environmental education through international networks of organisations, UN publications, and other publications.

UNESCO, in cooperation with other agencies, will prepare a global plan for carrying out the Tbilisi recommendations.

UNEP, in putting into action some of the Tbilisi recommendations, has started the Programme Activity Centre for Environmental Education and Training (PACEET) in Africa. An interagency meeting was held in Nairobi on 26th and 27th January to discuss this Centre. Representatives of a number of NGOs attended, including:-

African Social Studies Programme - Chris Adewole, Dr. G.R. Oluoch
Environmental Chemistry Network Dr. S.O. Wandiga

Environment Liaison Centre - Doreen Hishon-Moore, Graham Searle, Serena Zwangobani

Environment Training Programme Dr. Liberty Mhlanga

Science Education Programme for Africa - Dr. Hubert Dyasi

UNEP has an Action Plan for PACEET which they will discuss further with African Governments at Governing Council in May, but in the meantime, they expect to begin with certain parts of the Action Plan and are contacting Teacher Education institutions proposing short courses for teachers in Environmental Education. Asian governments and organisations have also been pressing for a Programme like PACEET in Asia, the experience gained in launching the Centre for the African Region should be most helpful in further consideration of Asian needs.

NGOs

As a result of the Workshop there is now the basis of an international network in EE

made up of 51 NGOs who sent participants to the Workshop and some 100 other NGOs who have so far indicated their interest in the network (see the list enclosed with this newsletter). The ELC also has guidelines for the follow-up activities after the Workshop and a number of advisers (the Steering Committee) from all regions of the world to help with this follow-up.

The Workshop coordinators, having in mind the recommendations of the Workshop, have divided the ELC follow-up into two sections.

(a) Development of a new project document or documents to follow on after the end of this project. The project document(s) is(are) being developed with the advice of NGO representatives on the Steering Committee. At least one document will draw up a plan for the coordination, by a central body, of regional EE activities of NGOs. If possible, this document will be prepared and approved by the Steering Committee in time to seek funds and have them available by the time the present project lapses in April 1978. Bridget Hughes of the ELC is working full-time on this in London. Her address is: I.I.E.D., 10 Percy Street, London W1P ODR, U.K.

(b) Development of regional EE networks and their coordination by the ELC until definite regional structures among NGOs are formed to continue the network. This will be carried out with the assistance of Regional Focal Point NGOs who will be identified from the present network. Serena Zwangobani of the ELC is working full-time on this in Nairobi and this newsletter is one aspect of these activities. Her address is: ELC, P.O. Box 72461, Nairobi, Kenya.

We have reported in this newsletter other NGO activities related to the Environmental Education Conference and Workshop, and we hope to hear of more which we will report on in later editions of 'EE Switchboard'.

We have approached certain NGOs whose representatives attended the Workshop, to ask them if they can act as Regional Focal Points for the development of Regional EE networks. There are already networks among environmental NGOs internationally; groups affiliated with, for example, the International Union for the Conservation of Nature and Natural Resources (IUCN), International Youth Federation for Environmental Studies and Conservation (IYF) and the World Federation for Democratic Youth (WFDY), are such networks. The network we are proposing

is not meant to replace or dominate others; however, it is attempting to simulate communication and action on environmental education specifically. Present networks and communication on environmental education are concentrated in the developed world and there is a need, which this network will try to fill, for communication across the developing country NGOs on environmental education - south-south as well as north-south.

In this intermediary stage of developing the network, organisations which have been approached as possible Regional Focal Points for the EE network development are:-

Africa: ELC, Kenya
Asia & the Consumers Assoc-
Far East: iation of Penang,
Malaysia.

Europe: Institute for Environmental Education, Netherlands

Latin America: ASCONA, Costa Rica

Middle East: Chamber of Architects, Turkey

North America: Agricultural Alternatives Development Program, U.S.A.

We have already had replies which suggest that these regions are too large. What do you think?

The *Consumers Association of Penang*, Malaysia, has agreed to serve as a Focal Point in Asia. Their techniques in EE range from use of the mass media to personal contact, and target groups range from housewives to the general public. Although their name implies a limited area of contact, they are now reaching other parts of Malaysia apart from Penang. Contacts are:-

Mohamed Idris,
Irene Fernandez,
21-C Codrington Avenue,
Penang, Malaysia.

The *Caribbean Conservation Association* would like to serve as a Focal Point in the Caribbean. They are already a network of NGOs with the support of governments. They see the Caribbean as a separate region from Latin America for communication on EE. Their experience in environmental education ranges over such activities as lectures and excursions for school children input to regular radio broadcasts throughout the area, support for research and surveys of natural and historical resources in the region.

Contacts are: John Connell
Jill Sheppard
Caribbean Conservation Assoc.
Savannah Lodge, The Garrison,
St. Michael, Barbados.

UNESCO/UNEP INTERGOVERNMENTAL CONFERENCE ON ENVIRONMENTAL EDUCATION

: RECOMMENDATIONS SUMMARIZED

prepared by Bridget Hughes and Serena Zwangobani

RECOMMENDATIONS SUMMARIZED

The following summary was made from the Recommendations adopted on the last day of the Conference. The number of each recommendation given in this summary refers to the version of the recommendations published and distributed in Tbilisi at the end of the Conference.

In this summary Environmental Education will always be written EE.

PART A: EE Goals, Objectives, Audiences and Guiding Principles.1.00 EE Goals

The goals of EE are (Recommendations 1,2,4 &6):

- 1.01 To foster clear awareness of and concern about interdependence in urban and rural areas economically, socially, politically and ecologically.
- 1.02 To provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment, preserve the biosphere, safeguard ethical values and the cultural & natural heritage.
- 1.03 To create new patterns of behaviour of individuals, groups and society as a whole towards the environment.

2.00 EE Objectives

The objectives of EE are (Recommendation 6):

- 2.01 Awareness: to help social groups and individuals acquire an awareness of and sensitivity to the total environment and its allied problems;
- 2.02 Knowledge: to help social groups and individuals gain a variety of experiences in, acquire a basic understanding of, the environment and its associated problems;
- 2.03 Attitudes: to help social groups and individuals acquire a set of values and feelings of concern for the environment, and the motivation for actively participating in environmental improvement and protection;
- 2.04 Skills: to help social groups and individuals acquire the skills for identifying and solving environmental problems;
- 2.05 Participation: to provide social groups and individuals with an opportunity to be actively involved at all levels in working towards resolution of environmental problems.

3.00 Audiences

The principal audience of EE is the general public. Within this global framework the major categories are (Recommendations 4, 9, 15, 19 & 32):

- 3.01 The formal education sector;

3.02 The non-formal education sector including youth and adults from all sectors of the population and all ages; particular groups such as teachers organisations, people in administrative and political positions, consumers organisations, personnel in the mass media industry, scientists and technicians.

4.00 Guiding Principles of EE Programmes

The guiding principles of EE are (Recommendations 2, 4, 6, 19, 25 & 36) :

- 4.01 To consider the environment in its totality - natural and built, technological and social aspects (economic, political, technological, cultural-historical, moral, aesthetic).
- 4.02 To be a continuous lifelong process it should begin at the pre-school level and continue through all formal and non-formal stages.
- 4.03 To be interdisciplinary in its approach, drawing on the specific content of each discipline in making possible a holistic and balanced perspective.
- 4.04 To examine major environmental issues, from local, national, regional and international points of view so that students receive insights into environmental conditions in other geographical areas.
- 4.05 To focus on current and potential environmental situations, whilst taking into account the historical perspective.
- 4.06 To promote the value and necessity of local, national and international co-operation in the prevention and solution of environmental problems.
- 4.07 To explicitly consider environmental aspects in plans for development and growth.
- 4.08 To enable learners to have a role in planning their learning experiences and provide an opportunity for making decisions and accepting their consequences.
- 4.09 To relate environmental sensitivity, knowledge, problem-solving skills and values clarification at every stage, but with special emphasis on environmental sensitivity to the learner's own community in early years.
- 4.10 To help learners discover the symptoms and the real causes of environmental problems.
- 4.11 To emphasize the complexity of environmental problems and thus the need to develop critical thinking and problem-solving skill.
- 4.12 To utilize diverse learning environments and a broad array of educational approaches to teaching/learning about and from the environment with due stress on practical activities and first-hand experience.
- 4.13 To take advantage of all public and private facilities available to the society for the education of the population.
- 4.14 Educational action should be linked with legislation policies, measures of control and the decisions governments may adopt in relation to the environment.
- 4.15 At the national, regional and international levels, a network approach in EE should be encouraged.

PART B: Summary of Recommendations

The recommendations as passed at the Tbilisi Conference were loosely grouped under headings. In trying to summarise them we have attempted to use the main headings of the Belgrade Workshop report, as these seemed more appropriate and as we have tried to bring out points of most interest to NGOs. UNESCO will be publishing the recommendations in their report on the Conference which is expected to be available sometime in mid-1978. Please contact UNESCO direct for the report:

Programme in Environmental Education,
UNESCO - ED/STE,
7, Place de Fontenoy,
75700 Paris,
FRANCE.

1.00 EE at the International Level

- 1.01 Unesco, with cooperation from UNEP, should take the initiative, with other specialised agencies and existing NGOs (including youth groups) to develop and coordinate EE programmes, both formal and non-formal. They should work on the definition of the framework of EE and promote the implementation of the Tbilisi recommendations (Recommendations 19, 25, 27, 28, 31, 32, 41).
- 1.02 A centre already in existence, or a centre to be set-up, could assist in coordinating EE programmes and serve the following functions in EE (Recommendations 24 & 29):
- . EE resource collection;
 - . EE material development;
 - . Dissemination of EE information, including the state of the environment reports;
 - . Promote the exchange of staff;
 - . Arrange meetings and conferences;
 - . Promote the development and publication of a common terminology.
- 1.03 International youth gatherings should be supported and encouraged by Unesco and UNEP (Recommendation 37).
- 1.04 Bilateral, regional and international cooperation, based on a broad exchange of information and experience, cooperation on programmes, etc, should be encouraged between national governments and NGOs concerned with EE (Recommendations 20, 25 & 34).
- 1.05 Unesco, in cooperation with UNEP should decide on a specific environmental topic to be treated on a world-wide scale at appropriate intervals, (Recommendation 32). A topic suggested for Unesco to draw up an international educational programme on was "the child and the environment" (Recommendation 30).
- 1.06 Unesco should decide on the convening of a second conference on EE at an appropriate time and encourage member states to implement the Tbilisi Recommendations (Recommendation 25).

2.00 EE at the Regional Level

- 2.01 Regional centres should be identified or set up to facilitate a network approach to EE among organisations concerned with the environment in each region. Such organisations could serve a coordinating function in curriculum development, exchange of specialists, sharing of documentation, research and training (Recommendations 36 & 38). Unesco regional offices could serve this function (Recommendation 26) and make available, regionally, funds for training programmes and EE specialists (Recommendation 41).

PART B: Summary of Recommendations

- 2.02 The African regional organisations and the UNESCO regional offices should be assisted by UNESCO and UNEP in implementing the Tbilisi recommendations (Recommendation 38)
- 2.03 In the Asian Region, national consultative committees should be formed on EE and these committees would liaise together to form an Asian regional coordination committee (Recommendation 35).

3.00 EE at the National and Local Levels

- 3.01 Governments should set up national centres of EE for the coordination of national EE activities. These centres should include representatives of NGOs and the mass media (Recommendations 20, 28). A national EE centre could disseminate information, preferably an existing centre, should be identified for this purpose.
- 3.02 Governments should set up specialised education centres for EE. They will provide training in EE, develop school curricula, prepare instructional materials, develop educational methods and media (Recommendation 1).
- 3.03 Governments should draw up action oriented plans and timetables for the actions. The planning should include comprehensive and co-ordinated legislation, financial, organisational and other measures (Recommendation 25).
- 3.04 Local societies to promote the protection of the environment and to participate in EE programmes should be set up with the support of governments (Recommendation 1).

4.00 Research

- 4.01 Governments should develop strategies and policies for research into the goals and objectives of EE. This should aim to identify the most effective educational conditions, the types of actions by teachers and the process of assimilation of knowledge by pupils. Obstacles to the change of concepts, values and attitudes for appropriate environmental behaviour should also be researched (Recommendations 18 & 27).
- 4.02 Research programmes should be undertaken into the design and development of purpose-built instructional systems, methods and materials, enabling inter-disciplinary (using elements from both arts and sciences) environmental curricula to be developed, which should be problem-oriented and action-oriented (Recommendations 16, 18, 27, 32, 40).

5.00 Development of EE programmes

- 5.01 The following are needs in EE which were identified in respect of the development of EE programmes.

The need for:

- The development of interdisciplinary programmes (Recommendation 16)
- programmes emphasizing problem-solving methods (Recommendation 9)
- programmes which sensitize the general public to EE principles and which emphasize general public and NGO participation in decision-making as it concerns the environment (Recommendation 2, 18, 19).
- the greatest emphasis on EE is to be in the formal school system, from primary through to tertiary (Recommendation 2) and that programmes be developed for this (Recommendation 19).

PART B: Summary of Recommendations

- 5.01 . NGOs to be included in EE activities involving any and all sectors of the population where appropriate so that they are involved in the formulation and execution of national education strategies (Recommendation 19, 34).

Consumer education should be included in the programmes of formal and non-formal education (Recommendation 9).

EE programmes for families and the education of young children (Recommendation 2).

NGOs to incorporate EE activities in their programmes (Recommendation 34). the development of a systems approach to the analysis and management of natural and man-made ecosystems (Recommendation 3).

6.00 EE Curriculum Guidelines

- 6.01 The following factors should be taken account of when EE curriculum is being developed:

- . Socio-economic factors as they relate to environmental issues (Recommendations 16, 4).
- . Cultural heritage (Recommendations 1, 23)
- . Ethical values (Recommendation 1)
- . Human settlements education (Recommendation 23)
- . Natural aspects of the environment (Recommendation 23)
- . Temporal aspects of each environment (past, present and future) (Recommendation 3).
- . Education on the work environment in primary and secondary levels (Recommendation 7).
- . Urban and rural EE (Recommendation 16).
- . Present programmes in EE or those planned which have major potential impact on the environment (Recommendation 19).
- . Consumer education (Recommendation 9).

- 6.02 The relevant authorities should work out criteria on which to base the environmental content of curricula, so that it can take account of local, social, occupational factors. institutions should have the flexibility to enable them to include the appropriate aspects of EE, into the existing curricula, and where necessary create new curricula to meet the requirements of an interdisciplinary approach and methodology and of particular situations such as exist in urban areas, areas of historic interest, etc (Recommendation 1, 16).

Where there is already a collective effort among countries in curriculum development, eg. African Social Studies Programme; effort should be made to incorporate such EE material as might be missing from such materials (Recommendation 36).

B: Summary of RecommendationsTraining of EE Personnel

Training programmes in environmental matters should include the evaluation of development programmes from the standpoint of the human environment (Recommendation 5). Practical training in environmental matters should be given to those who exercise responsibility in both public and private sectors (Recommendation 2).

Teacher education: environmental education and sciences should be included in both initial and in-service teacher education. This education should be appropriate to the area in which the teachers will be working in, or are working in (Recommendations 10, 11, 32). The training should include courses of research methodologies for designing and developing methods and aids, with particular reference to low-cost materials and opportunities for adaptation and improvisation to local circumstances (Recommendations 16, 17, 18).

Occupational Education: the training of professionals, administrators, planners, policy makers, vocational technicians and farmers should include courses dealing with both the natural and man-made environments (Recommendations 12, 13, 14, 15, 22). Various levels of formal and non-formal education should contribute to this training (Recommendation 32). In-service training in environmental matters should also be provided for professionals and those in special trades (Recommendation 7). Decisions-makers should also be educated in environmental matters, including those of the work environment (Recommendation 7). Environmental training sources should be organised for mass media personnel (Recommendation 19).

Higher education: member states should review the potential of universities conducting research programmes (Recommendation 21, 16). There should be close co-operation between different university institutions, specifically to train experts in EE (Recommendation 41). Students in all fields (natural & technical sciences, arts and social sciences) should be made aware of the inter-relationships between man and the environment, as the relationships between nature, technology and society mark and determine the development of society.

Communications in EE

A public information campaign should be established, both nationally and regionally, on relevant environmental issues (Recommendations 19, 25), including consumer education (Recommendation 9).

The collection and dissemination of relevant material should be developed and information exchanged between public and private organisations (Recommendations 19, 23). Information should be provided on the environmental impact of present and planned activities, with programmes which stress the importance of participation by the public and by NGOs in the decision-making process (Recommendations 8, 19, 24). This information should be disseminated through existing organisations as well as the mass media (Recommendations 19, 24, 3) who should be supplied with environmental education materials.

Information on the results of research should be exchanged, among relevant institutions and supplied to the public (Recommendations 18, 31, 32) and advice on EE should be extended to governments and organisations when required (Recommendation 25).

PART B: Summary of Recommendations (continued)

8.04 UNESCO should collect and circulate, in cooperation with appropriate governmental and non-governmental organisations, information relevant to EE, either as a directory or as an information bulletin, this could include information about new publications, research work, methods, experiences, etc.. This should be in cooperation with UNEP's International Referral System (Recommendation 25).

8.05 Information should be disseminated to broad sectors of rural and urban communities (Recommendation 19).

8.06 Museums, exhibits and film festivals should be encouraged, in order to increase public awareness of environmental issues (Recommendations 19, 33).

9.00 Funding of EE Programmes

9.01 The Director-General of UNESCO should seek funds:

- . for workshops, seminars and conferences for regional NGOs (such as ASSP, SEPA, ACO) to extend their research and training programmes. Also to enable the exchange of specialists between such organisations (Recommendation 36).
- . to provide literature and teaching aids (Recommendation 31) and to establish an information bulletin about new publications, research work, methods, experiences, etc., which would work in close cooperation with UNEP's International Referral System (Recommendation 25).
- . for technical aid to be given to member States who have not yet established EE structures (Recommendations 2, 31).
- . to ensure that responsible officials from youth organisations and NGOs are present at Inter-governmental meetings, and at experts' meetings (Recommendation 37).

10.00 NGO Involvement in EE

10.01 There is a need for coordinating national organisations - in all aspects of EE - to be formed or identified and developed (Recommendations 1, 20, 24). NGOs should be actively involved in the work of such organisations.

10.02 Recommendations specifically encouraging a network approach to communication in EE were numbers 19, 24, 36; NGOs would be included in such networks. The networks could be regionally, and internationally organised. As centres for the networks, existing regional networks were suggested as a start (Recommendation 19).

10.03 The type of activities which should be carried out by national, regional and international EE coordinating bodies and which concerned NGOs would be (Recommendations 20, 24, 34, 36):

- . facilitating relationships with all organisations involved in EE;
- . coordinating initiatives in EE;
- . serving in a clearing house and information centre capacities in EE and environmental training;
- . promoting closer relationships between EE associations and other people and organisations concerned with the environment having the intention

PART B: Summary of Recommendations (continued)

to improve their awareness and understanding of EE. This promotion could take the form of meetings, exchange of specialists, coordination of research and training facilities;

- . providing frameworks and guidelines for the establishment of EE action committees within each country;
- . assessing the need for research, development and evaluation in EE;
- . providing documents to organisations for the improvement of their resources in EE.

10.04 UNEP, UNESCO and governments (Recommendation 19), were asked to support the above and support international youth meetings and the participation of youth in international gatherings (Recommendation 37). UNESCO was recommended to study the role of international governmental and non-governmental organisations in the solution of EE problems and to contribute to the development of EE (Recommendation 31, 41).

10.05 Organisations involved in environmental issues were encouraged to plan specific programmes in EE for all sectors of the community including the formal education system (Recommendations 9, 19, 27). The programmes could include information on the following (Recommendations 8, 9, 19, 23):

- . present or planned activities with major potential impact on the environment;
- . cultural heritage, where relevant;
- . human settlements;
- . consumer education.

10.06 Museums and exhibitions can be used to encourage public awareness (Recommendation 19).

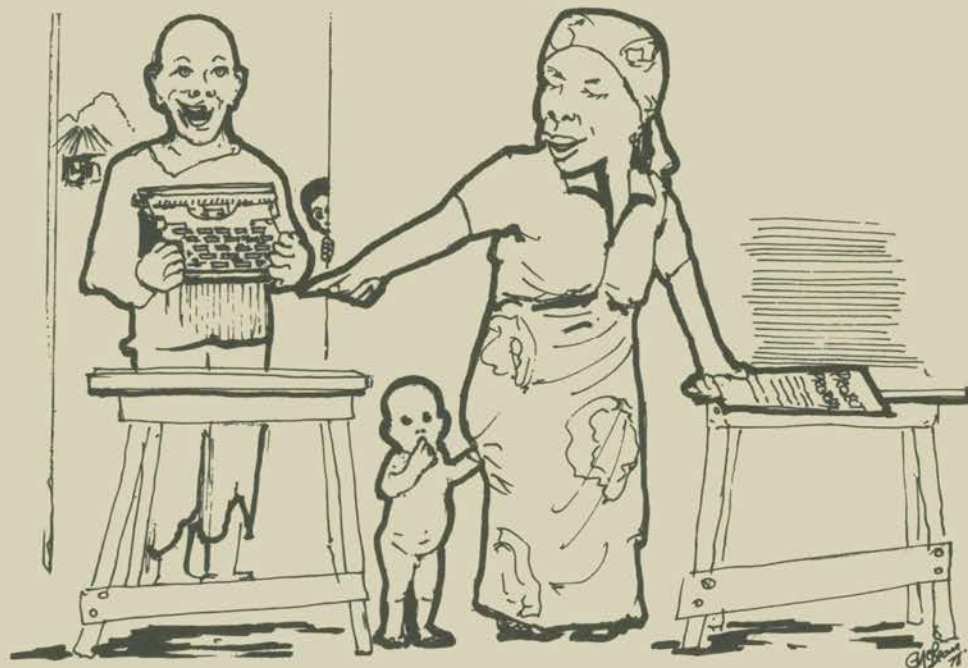
10.07 Other recommendations which could include NGO involvement in their implementation have been mentioned under other headings.

ENVIRONMENT LIAISON CENTRE
P. O. Box 72461
NAIROBI
KENYA
Telephone: Nairobi 24770

OBTAINING MONEY FROM A FUNDING AGENCY - HOW TO WRITE AND ASK

by Serena Zwangobani

OBTAINING MONEY FROM A FUNDING AGENCY—HOW TO WRITE AND ASK.



This article is written as an aid to non-governmental organisations (NGOs). Because of the range in needs for financial support and in the size and sophistication of NGOs around the world, the information is designed to cover the range of simple to complex project proposals. We hope you won't be deterred where the details we suggest for the project proposal seem trivial, eccentric or irrelevant. Where, for example, you are involved in helping meet basic needs for an economically poor community, punctuation and spelling errors in a project proposal may seem so trivial as to be worth overlooking. The decision is yours on which of our suggestions to follow, they are not infallible rules - just advice from our experience.

Whether your organisation is located in Barbados, Australia, Fiji, Korea, India, Hungary, Costa Rica, wherever - good ideas for your activities are likely to cost money. The following are suggestions on writing a proposal for funding whether your non-governmental organisation (NGO) has a good idea which only requires \$50 or \$10,000.

PREPARATION FOR WRITING THE PROPOSAL

(i) Check the directories of funding agencies to find possible agencies you can approach. The most likely projects to get funding in the environmental field at present are those projects which relate to development or technology. However, the best way to know the kind of projects the funding agency is likely to support is to examine the latest projects funded by the agency. Some directories compile information covering many funding agencies and the projects they fund. (For examples of directories, see last page.)

(ii) Get from the funding agency a copy of any instructions they have on the format of project proposals, their dead-line for submission of proposals, and their priority areas. If the instructions are very specific and require filling in a form your work is simplified.

If you can make this initial contact with the funding agency a personal one with the funding agency's representative it is all the better. He/she may be able to advise you about writing the project proposal and the needs they are most interested in funding.

On your first approach in person to the funding agency it is most important to make an impression that will leave the funding agency

representative keen to get your project proposal. Go fully informed about your organisation and the idea you have for the

proposed project. If possible, take someone with you who is well-known and respected. Your appearance and that of the person accompanying you should be in formal dress. Keep the name and telephone number of the funding agency representative for future personal contact.

Once you have handed in the proposal to the funding agency it may be difficult to endure the long wait for their reply. To anticipate this, ask when you see the agency representative in person, what is the time schedule of their decision-making on the proposed project. You will then know when to expect a reply to your request for funds. If within a week of the final decision being made, you have not received any notice (allow for mail, etc. where appropriate), check with the funding agency on the result of your organisation's application.

(iii) Clarify the purpose of the project. It must be clear to yourself and to the funding agency.

(iv) With the purpose stated clearly, you have the beginning. The next step is to define the end - the outcome of the project. The only kind of outcome is one which is achievable, and it is best if it is also visible. For example, you may have as an outcome 'improved attitudes of the general public to locally nutritious foods' - an imponderable to a funding agency. A clearly visible outcome would be a paper-back book, illustrated with drawings or photographs; written in a major local language; containing recipes for locally available foods; having information on food values; and having advice on planning cheap, nutritious family menus.

(v) Choose an appropriate title.

(vi) Then briefly outline the steps planned for the project to move from introduction to conclusion. When the points in the brief outline are in logical sequence of clear ideas put them in the form of a summary.

(vii) A summary of the project proposal is usually required by funding agencies but it also serves the purpose of making the actual proposal much easier to write. It should be about 300 - 400 words in length. Include in the summary the clearly defined purpose, the way the purpose will be achieved and basic reasons for choosing this method. The measure of achieving the purpose, or some evidence of it should be described, e.g. a directory, a statistical summary of the services and number of clients using them. Key phrases should be used in the summary to present ideas simply and these phrases should be repeated in the main body of the proposal. For example:

In the summary ...

III ACTION PLAN

Training Programme preparation will entail the following:

- . Selection of trainees
- . Production of training documents
- . Accommodation arrangements.

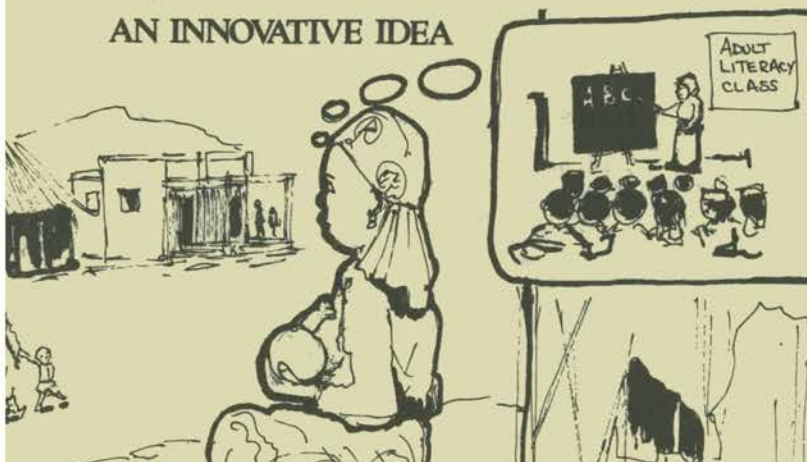
In the project proposal ...

III ACTION PLAN

Training programme preparation will take place over three weeks. It will be composed of the following steps:

- (a) Selection of trainees There will be 30 places for trainees. A questionnaire requiring information on each nominee's background will contain the following items:
- . name, sex, age
 - . NGO name
 - . activities and position in NGO
 - . educational qualifications
- (b) Production of training documents Three documents will be produced on the following topics:
- . collection of information on key environmental problems of each local area
 - . communication of environmental concepts to non-literate adults
 - . radio programs for rural villages
- (c) Accommodation arrangements To be made for 30 organisers. The location will be in a rural setting with single rooms and full-board for 33 people, available for two weeks.

AN INNOVATIVE IDEA



(viii) The potential funding agency will probably receive hundreds of worthwhile proposals including yours, of which they can only fund a small proportion. They will therefore be looking for proposals having characteristics which make them stand out from the rest. It is necessary then to write your proposal in such a way that the activities you want to carry out seem innovative or unique. Its uniqueness may be because of the particular activity proposed or may be because, for your location, it is new. A project having as a basic purpose the 'strengthening of global activity, and especially NGO activity, in the field of environmental education' may sound interesting but would be unlikely to attract funds. A unique aspect of the immediate objectives could be to sponsor a group of NGO representatives from developing countries to attend a world conference on environmental education. This latter objective would distinguish the proposal and provide an achievable, visible outcome.

To summarize, you now have:

- . The purpose
- . The measurable outcome of the project and identification of other less quantifiable benefits, e.g. change in the attitudes of the general public to the use of nuclear energy
- . Title
- . Summary of the project proposal
- . A unique angle to the purpose and/or outcome

WRITING A PROJECT PROPOSAL - FIRST DRAFT

I - Introduction

Make the introduction succinct, informative and stimulating to get the attention of the project reader from the very beginning. Drawing attention to the unique aspects of the project can help do this.

Explain the background to the project proposal and indicate the evidence available to show that there is a need for the project to be carried out. Without labouring the obvious, it is important to include substantial data here, so that the logic of your argument for funds is apparent. For example, if you were proposing a literacy project for a particular area in your locality, you would mention the survey your NGO carried out there which found 75% of the women over 20 years of age and 60% of the men were unable to read and write at the level of the 4th year of primary education. (A detailed report on this survey could be appended to the proposal). A brief explanation of the techniques used to make the survey, the number of people surveyed, etc. could be given. It would be important to relate this project to any other similar projects done elsewhere which you have referred to, or to reports with factual information on this need (give references). However, it would not be necessary to elaborate on this to the extent of explaining the literacy levels of the entire country, or region, or in developing countries.

Briefly indicate the plan for achieving the purpose - in general terms, not each specific action. Make it clear what the visible outcome will be, as well as the general results you expect. In this section you also introduce the basis of your argument

for why your NGO is the best organisation to carry out this project, but it is best not to compare it with any other named organisation.

II - Objectives

If this is the first time you are attempting to raise funds, try to keep your objectives relatively simple. It is better to have a record of several small but successful projects than to have no record and be aiming for impressive and expensive projects.

The overall purpose which you gave in the introduction can usually be sub-divided into two kinds of objectives: immediate objectives and long-term objectives. The objectives must be realistic, worthy of funding and possible for your organisation to attain. You may, for example, have in mind a project which would attract new members. However, it would be unwise to develop a project based on the utilization of those potential members. Base it on the personnel you have and only those extra you would have to hire to carry out the project.

Each objective should have two dimensions: the kind of activity you will carry out and the content. For example, the objective might be 'produce a brief, illustrated report on the Conference papers and the recommendations that the Conference agrees to.' The activity will be writing a brief, illustrated report. The content will be the Conference papers and recommendations.

III - Action Plan

You should sub-divide this section of the proposal to make each step easily identifiable and directly related to the objectives. Put headings for each division. This section should include the following:

- (a) The target group of the project, if there is one, e.g. the form 1 - 3 students at at schools within a 5 mile radius of Semarang - then list the schools.
- (b) Methods you will use to achieve the objectives, specific details of the advance preparation and any follow-up after specific events. For example, if your objective is to provide an environmental training programme for local youth leaders, you would need to specify:
 - . the number of places available in the training programme;
 - . the selection process for trainees;
 - . the material to be given to the trainees prior to the training programme;
 - . the curriculum, methods and trained personnel;
 - . evaluation after the training programme.
 - . steps being taken to develop independent funding for the project in the future.
- (c) The actual results you expect to achieve both in the immediate term and the long term.
- (d) Explain the reports to be written and documents to be developed as a product of the project.

Never underestimate the importance of this part of the Action Plan. The documents you produce are the visible evidence of the expertise of your NGO which can be sent with future project

proposals to funding agencies. The report on the project will have to be well-written, perfectly typed (and printed if this is necessary), positive and factual. It will have to shout to future readers, in its appearance and content, that your NGO is competent, useful, efficient and knowledgeable - the best for the job!

IV Time-Table

A - Complete Project Timetable:

A time-table is a great help to you, as well as to the funding agency, in following through the project in an orderly manner.

Include the following in timed segments:

- (i) Preparation for writing the project;
- (ii) Writing the proposal and allowing for at least five revisions, i.e. approximately three months;
- (iii) Processing by the funding agency, i.e. 6-12 months;
- (iv) Time for each step of the Plan of Action of the project;
- (v) Writing, revising and typing the final report, i.e. allow about one month follow-up after completion of the Action Plan for this. If the report is to be printed, add on whatever the printing company advise will be their time allowed.

This complete project timetable is for you to use, it is not all written into the project proposal. The only part the funding agency will be interested in are (iv) and (v) which are elaborated on in B.

B - Timetable in the Project Document:

The time span for each step in the Action Plan must be written in to the project proposal. It is shown in segments of months, weeks, or days and can have specific dates or numbered time segments.

For example:

<u>TIME SEGMENT</u>	<u>ACTIVITY</u>
June 4-9 <u>OR</u>) Week 1)	Preparation of selection questionnaire
June 11 - 22) <u>OR</u> Week 2)	Hand delivery of questionnaires to local NGOs and explanation discussion with a leading member of each NGO.

If you have to start the project to coincide with some specific date, such as the starting of a conference, the time-table for the Action Plan should start on the latest date you think you could accept the funds before the conference and still get the project completed successfully. As mentioned in IV A(v), you must also allow time to write up the final report after the project is completed. This might not require the full staffing component used throughout the project - perhaps only one or two people. (If you do this, make sure you alter your budget for the cut in staff over the last period of the timetable.)

V PERSONNEL

List the most important personnel you will have working on the project and give a short outline for each of their experiences and qualifications which are relevant to the project.

Mention also the support staff, but do not go into details of their background as you do for the most important staff.

VI Qualifications of the Organisation

Details of the NGO which will be carrying out the project are necessary to convince the funding agency that your organisation is capable of carrying out the project efficiently, responsibly and honestly. This section is most important. Even if your introduction has been interesting and your plans for action are worthwhile and convincingly written, the funding agency still needs evidence of the capacity of your organisation to do a good job.

One of the problems that many NGOs face in getting funds is that they may be perceived to be 'radical' and a risk to fund. The best way to overcome this problem is to be able to show the funding agency that you have credibility and respectability in your community. Suggestions on establishing credibility are given below:-

- Prepare and attach to your proposal an audited financial report for the previous financial year. It should show donations from all of your sources no matter how small. Include cash donations, provision of office space, provision of people, services and equipment.
- Use your best writers and typist to report on previous activities of your organisation in a way that is easy to read, not sensational and emphasizing the practical achievements. This can be appended to your proposal. It must be short, not more than four pages.
- Form a steering committee to help with the project. On it include respectable community leaders, government officials, university professors and religious leaders. In the section on your NGO written in the project proposal include the names and functions of these steering committee members and brief details of their qualifications for being on the committee.
- Show that your organisation has a plan of activities which extends from the past into the future, e.g. a five year plan. The project proposed should be shown as part of this plan. Previous achievements also can be mentioned in the light of the long-term plan.
- When the project proposal is finally agreed and ready to go to the funding agency, obtain the endorsements of several individuals of high positions in the community, or, where appropriate, in the country and overseas. They should sign a letter which can be attached to the proposal which says that the objectives of the project are excellent, the work is needed, your NGO is experienced and capable of completing the project successfully and they fully endorse the funds being requested.
- It helps sometimes to be able to show that other funding agencies have agreed to fund some of the project already.

Frame the information given in such a way that it argues for your NGO being the most appropriate and best to do the job you are proposing, not so much because of the past history of the organisation, but because of what you can offer now. There may be other organisations, government or non-government, in your community who could be seen as suitable to carry out the project. Rather than avoiding mentioning them, it is better to make it clear that you are aware of these other organisations but then claim the special qualifications your organisation has which puts it ahead of other agencies in regard to the project you are proposing, and/or show how the work of your NGO supplements their work. If you ignore other organisations, it would appear that you have not properly researched the project proposal and you are unaware of the work others are doing in the same field.

Take, for example, a project proposing to set up a resource centre on traditional technology. There may be several organisations doing related work in your community, let us suppose that UNICEF runs an appropriate technology unit to develop and communicate these technologies, the university may have an engineering department working on the subject and there may be a village close by cooperating in trying out appropriate technology developed by the UNICEF unit.

Your organisation would need to show that it had communicated with all three of these other groups, that none of them had the facilities or personnel to collect resources in this field and that all would be able to usefully use the resource centre you set up.

Apart from filling the great need you have demonstrated for the resource centre, you might argue that the particular personnel and the facilities of your organisation are especially appropriate for the job as you have 10 regular volunteer workers who will complete 20 hours per week each week under the hired staff you propose; you have a room centrally located to public transport which is of the right size for the resource centre; and you have personal and mail contact with 50 other groups working on traditional and appropriate technology in the region.

VII History of the Organisation

This section provides support for Section VI. Keep it brief and include the following:

- (a) When the organisation started
- (b) Aims and objectives
- (c) Current Board of Directors
- (d) List of all successful actions.

In support of this information it would be appropriate to append a brochure giving necessary details of the NGO.

VIII Budget

- (i) Budget Items:

Below is a list of the kind of budget items you will need to include. Some explanation of budget items is given after the list but the example budget shown is intended to provide most of the information.

- A. Personnel Salaries
- B. Office Rent, heat, light, water
- C. Office Equipment Rent
- D. Office Supplies
- E. Travel Expenses
- F. Major Production Expenses:

1. Meetings
2. Books
3. Films
4. Reports

G. Insurance:

1. Car
2. Office equipment
3. Personal liability

H. Contingencies: including bank charges.

In the example budget below, there are two columns for costs. This is done for the sake of UNEP proposals and others when they require a matching contribution from the organisation they fund. Some funding agencies only require one column. The full costs of the project to your organisation should be shown under the column for the funding agency.

BUDGET

The budget for the full 12 months project period is as follows (all figures expressed in US \$). The column headed 'NGO contributions' represents expenses incurred by or on behalf of your organisation; the column headed 'Funding Agency' represents expenses to be covered by the Funding Agency.

Budget items	Funding Agency	NGO Contribution
A. Project Personnel		
Project Coordinator	\$ 5,000	\$ 500
Project Assistant	2,500	500
Administrative Support Personnel		
1 Clerical Assistant		1,500*
1 Typist		1,000*
NGO Steering C'ttee time		6,000*
Sub-total A	7,500	9,500
B. Office rent, electricity and water		
	800	700
C. Office equipment rent		
1 typewriter	150	
D. Office supplies		
Stationery, telephone, postage	500	
E. Operation and maintenance of motor vehicle		
	750	
F. Report production		
	100	
G. Insurance - office equipment		
	50	
- personal liability		
	300	
Sub-total B - G	2,650	700
H. Contingencies - including bank charges, auditing of accounts		
	1,015	
Sub-total H	1,015	
TOTAL	\$11,165	\$10,200

* could be volunteer help, not actually paid for.

(ii) Notes on Costing

Most funding agencies will not provide money for capital expenditure such as for buildings typewriters, xerox machine, etc. To acquire equipment where your organisation does not own it, rent it commercially and charge the rent to the project. If your organisation already owns equipment needed for the project, or has it on loan for free, it is proper to still charge rent to the project. If the equipment is an office utility which will be shared during the project with others working on different projects, then charge this project only a portion of the rent. That way, you may eventually pay for equipment already available and have money for new equipment. You will nearly always be short of reference material and can include subscription costs to the best periodicals on the field you are working in under the funding agency's contribution.

Costs which you should not overlook are transport in your locality as the project personnel are required to travel on business. Others include service and import duties for resources you may need to buy from outside the country, and repair and servicing costs for your equipment. Allow adequately for producing the final report. If the funding agency who supported your project requires multiple copies of the final report for their use, as for example UNEP usually does, it is necessary to cost the reproduction of these under the funding agency's contribution in the project proposal. The report should be the slickest, most professional publication you can manage, designed with the specific objective of using it for showing your NGO as a capable, efficient, worthwhile organisation in the light of its excellent performance in completing the project. Remember it may be necessary to cut back the salaries in your estimate to allow for most of the staff finishing before the final report is produced.

Costing the matching contribution from your NGO is easier than it may appear. If, for example, your NGO runs on mainly voluntary help, out of someone's living room, in a private house, you may wonder how to cost your NGO's contribution. It is legitimate to cost all of these facilities and personnel as though your organisation were paying for them to reflect real costs. They are considered services in kind. Anyone providing their time and skills to advise and work on the project as though they were employed, including your Executive Committee and Steering Committee, for example. Don't forget to include under your NGO's contribution, an estimate for a cleaner and messenger if you use people to do this work either on a voluntary or paid basis.

It is usual to cost contingencies by taking 5-15% of the other items.

IX Budget Explanation

It may be necessary to explain some budget items to make the budget clear to the funding agency. Rather than putting explanations against the figures in the table, it is better to put numbers or symbols next to the items in the table and write brief explanations in notes below the table.

Check-list for Revision of Drafts

The drafts will require several revisions. We have known some proposals to be revised up to eight times. When revising, check the following points:-

1. The project proposal meets all the funding agency's requirements.

2. Every figure given and statement made is accurate.
3. There are no spelling errors, and the layout is clear. Use wide margins and double-spaced lines.
4. Where appropriate to overseas funding agencies, check that the proposal can be understood by a reader who has never met you, visited your locality or lived in your culture. Eliminate all words having specific meaning only in your country. If it is impossible to avoid such words because of their very specific meaning make sure they are explained clearly. "Harambee" project or "Ujamaa" village may be terms now used internationally, but it is wiser to use other words less culture-specific if possible. In every respect, the language should be simple and clear and in one of the internationally used languages such as English, French or Spanish.
5. Check that there are no unnecessary words, phrases, paragraphs, sections.
6. If your first language is not the same as the language of the project proposal, have it read by someone whose language proficiency of the second language is the best available.
7. When you are near the final draft draw up a table of contents and add to the project proposal.
8. Let at least two other objective people read the final draft. It is preferable that one of these is not involved in the project and is not in your NGO.
9. Keep at least one copy of the final version.
10. Record all the funding agencies you have sent the proposal to.
11. Keep copies of all correspondence you send and file all correspondence you receive, attaching your reply to the letter.

* If you are writing a project proposal to submit to UNEP contact Gary Herbertson, NGO Liaison Officer, UNEP, P.O. Box 30552, Nairobi, Kenya. Two UNEP documents which may be useful in writing a proposal which is specifically for UNEP are UNEP/FUND/17, entitled 'Subject: Format of Project Document' and UNEP/FUND/17 add. 1, entitled 'Subject: Project description in project document'.

Funding Agencies

The funding agencies you are likely to have representatives of in your country are those of foreign governments. Non-government funding agencies such as the Ford Foundation are less likely to have representatives in developing countries but they will be able to be contacted by mail.

Examples of Funding Agencies -

Intergovernmental Organisations:

NGO Liaison Officer, United Nations Environment Programme, P.O. Box 30552, Nairobi, Kenya.

UNESCO, Place de Fontenoy, 75700 Paris, France.

European Economic Community, 200 rue de la Loi, B-1049 Bruxelles, Belgium

Organisation for Economic Co-operation and Development, 2 rue Andre Pascal, 75775 Paris, France.

National Organisations

The Director, Canadian International Development Agency, 122 Bank Street, Ottawa, Canada KIA 0G4

Deutsche Stiftung fur Internationale Entwicklung (German Foundation for International Development) Rauch Street 25, 1000 Berlin 30, Federal Republic of Germany.

Ministry for Overseas Development Aid, 27 Langerhoud Strad, The Hague, Netherlands.

Swedish Office of International Development, Birger Jarlsgatan 61, Stockholm S-105 25, Sweden.

Non-Government Foundations

Ford Foundation, 320 East 43rd Street, New York, NY 10017, U.S.A.

Rockefeller Foundation, 111 West 50th Street, New York, NY 10020 U.S.A.

World Council of Churches, 150 route de Ferney, 1211 Geneva 20, Switzerland.

World Wildlife Fund, Postfach, Zurich 8027, Switzerland.

Examples of directories of funding agencies:-

Directory of Activities of International Voluntary Agencies in Rural Development in Africa

United Nations, New York, NY, USA.

General information on international voluntary agencies - addresses, affiliations, objectives, activities, countries of operation, rural development activities by nation.

Directory of Aid Agencies

Pacific Bureau for Economic cooperation, P.O. Box 856, Suva, Fiji.

Descriptions, activities and addresses of grant-making official bilateral agencies, international governmental organisations, research institute, volunteer organisations, foundations, and church bodies.

Directory of Grant-making Trusts

Booth, J.D.L. (editor)

Charities Aid Fund of the National Council of Social Service, 48 Pembury Road, Tonbridge, Kent TN9 2JD, U.K.

Classification of charitable purposes according to subject; alphabetical register of grant-making charitable trusts, their correspondents, trustees, objectives, beneficial areas, and subject areas funded.

The Grants Register, 1975-1977

St. James Press, 19 Montague Mews North, London, W1H 1AJ, U.K.

Sections on natural resources/environment protection and education/teaching.

NOTE: refer to Nations of Developing Countries.

The International Foundation Directory

Hudson, H.V. (Consultant editor)
Europa Publications Ltd., 18 Bedford Square,
London, WC1B 3JN, U.K.

Information on foundations throughout the world
by country, including their scope (international
or national), activities, finances, and
trustees.

U.S. Non-profit Organisations in Development
Assistance Abroad

Crosby, B., and Smyth, S.J. (editors)
Technical Assistance Information Clearing
House, American Council of Voluntary Agencies
for Foreign Service Inc., 200 Park Avenue,
New York, NY 10003, USA.

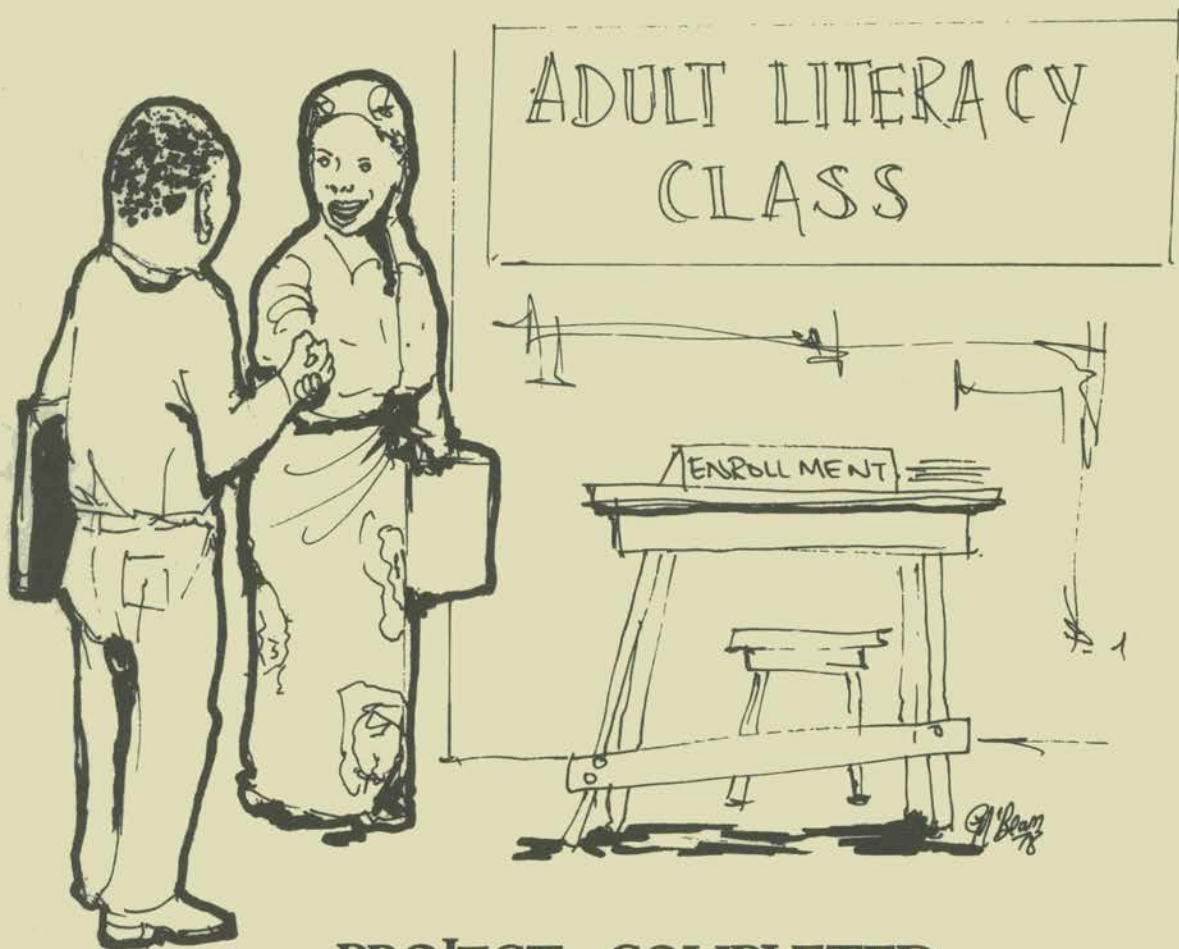
Organisation profiles, including address,
executive staff, objectives, programmes of
assistance, resources and publications;
programme information by country.
NOTE: Very helpful.

Yearbook of World Problems and Human Problems

Mankind 2000 and Union of International
Associations, 1 rue aux Laines, 1000, Brussels,
Belgium.

International agencies and associations,
their addresses and correspondents; multi-
national corporations and enterprises, their
addresses, subsidiaries and commodities.

We cannot help with the content of your proposal, but we may be able to advise on the presentation and language. Send us a copy of your draft proposal if you think we can help. We are also in close contact with the United Nations Environment Programme (UNEP) and if you give us a copy of any project proposal sent to them, we can help follow it up at UNEP.



PROJECT COMPLETED

Centro de Enlace sobre el Medio Ambiente
P.O. Box 72461
Nairobi, Kenya

Centre de Liaison pour l'Environnement
P.O. Box 72461
Nairobi, Kenya

Environment Liaison Centre,
P.O. Box 72461,
Nairobi, Kenya

Téléfono: 24770

Téléphone: 24770

Telephone: Nairobi 24770

PRINTED PAPER RATE

From:

Environment Liaison Centre,
PO Box 72461,
Nairobi,
KENYA

ENVIRONMENTAL EDUCATION COOPERATION NEWS

Nos. 1 & 2

Centro de Enlace sobre el Medio Ambiente
P.O. Box 72461
Nairobi, Kenia

Centre de Liaison pour l'Environnement
P.O. Box 72461
Nairobi, Kenya

Environment Liaison Cen
P.O. Box 72461,
Nairobi, Kenya

Teléfono: 24770

Téléphone: 24770

Telephone: Nairobi 24770

ENVIRONMENTAL EDUCATION COOPERATION NEWS

No. 1, 7 November, 1977

In an effort to keep you informed of the action of the ELC and the Steering Committee (formed during the Workshop for Environmental Education Cooperation, Geneva) a report will be sent to you at least once a month until the present project finishes (April 1978). We will make an effort to keep it brief and if this sometimes leaves you with questions please write for clarification. Your comments would be appreciated. A covering letter will go to those interested who could not attend the Workshop to explain in more detail where necessary.

When the Workshop finished we were fortunate to have some of the participants remaining behind with whom discussions were continued on how the Steering Committee (SC) might function. Over a period of two days discussions resulted in the following:

A. Needs of the Steering Committee from November 1977 to April 1978

Need 1

There is no comprehensive information available on NGOs in Environmental Education world-wide. It was therefore decided that the Steering Committee (SC) would need more information by region on NGOs involved in this field before the recommended 3 year project to begin after April 1978. For this, funds should be found to enable - in each geographical region - a person chosen as a Regional Focal Point (RFP) by the SC to contact NGOs to improve the present information on NGOs in environmental education. This contact would be by post where possible and, if necessary, in person. The RFP could solicit help from National Focal Points (NFPs) (appointed by the RFP) wherever a NFP would make it easier to obtain information. The funds needed would cover only the costs for National and Regional Focal Points to collect information - they would not cover salaries.

As the time left is a bare 6 months, very little to get complete information on NGOs in environmental education throughout the world, the following guidelines would apply:

Regional Focal Point

- (a) The RFP chosen by the SC would utilize present available information on NGOs in environmental education to evaluate which NGOs and individuals would be useful to include in the network at present. The present available information is -
- a copy of the ELC Profile Survey print-out of NGOs for each region;
 - a copy of the Unesco print-out for environmental education organisations (the published version is not available to us yet);
 - any other information available on NGOs which have environmental education programmes, including any information that becomes available on the UNEP environmental education survey.

- (b) The RFP would add NGOs actively involved in environmental education not already in any present information system but known to the RFP.
- (c) The RFP would seek to complete the information on NGOs where the evaluation could not be made for lack of information. This may require a visit or postal contact. A questionnaire was designed to elicit basic environmental education information from the NGOs who the Regional/National Focal Points decide to contact for this purpose.

Evaluation of NGOs for Inclusion in Network

- (d) The decision on which NGOs to include at present in an attempt to create a network of NGOs in environmental education would be rather subjective at this stage. The aim would be to include only those 'active' in environmental education. This evaluation would be made by looking at the following for each NGO -
- . areas of interest e.g. energy, literacy, conservation of nature etc.
 - . approaches to the area of interest e.g. use of seminars and workshops, use of mass media, publication of literature etc.;
 - . groups in the community the NGO wants to communicate with;
 - . assessment of the needs of the NGO for training of personnel, consultants, technical facilities etc.;
 - . past, present and future programmes of activities.

Need 2

The Steering Committee would need to meet at least once over the next 6 months. At present the Committee numbers 10 but the ELC project funds would probably only stretch to cover fares for about 4. It is therefore necessary to seek funds for travel of members of the SC to at least one meeting together.

Need 3

UNEP's Governing Council will be held about May 1978 in Nairobi. To this meeting come representatives of most funding agencies and of governments interested in environmental matters. It has been suggested that SC should be able to meet for the second and last time during Governing Council and funds would be needed for this. The SC would then have the opportunity to get funds and support for any future projects in environmental education including the proposed 3 year project requested at the Workshop.

To seek funds for all the above needs Bridget Hughes has remained in Europe to draw up a project and offer it first to the Dutch Government (who we have been advised may be interested) and then to any other body which may help. These funds would only be to support the work of the SC for the next 6 or 7 months.

B. Work of the Steering Committee

As stated in the Geneva Workshop the Steering Committee will 'consider the development and financing of a 3 year project to be developed by the ELC or another suitable organisation...'

It was decided therefore that, as the SC cannot easily prepare a project without meeting, the ELC will draft one in consultation with UNEP and this will be distributed to the SC and others interested so that they have a document to work on when they do meet. We would hope to have this draft project to each member of the SC by the end of November.

Given the problem of financing the meeting of the SC, and the allowance needed of 3 weeks, mailing time one way for communication (other than cable) from Nairobi to some of the SC members, it looks as if the earliest meeting of the SC would be 3 months from now i.e. January 1978.

C. Documentation from the Tbilisi Conference and the Geneva Workshop

You should now have:

1. Environmental Education Cooperation News, No. 1, 7 November 1977.
2. The Workshop resolution and recommendations.
3. Tbilisi Conference declaration and recommendations.

Within the month of November you should receive a list of Workshop participants and a list of addresses from those unable to attend but interested in cooperating.

- D. The ELC will draw up a timetable of activities to be covered over the next 6 months to ensure that the resolution from the Workshop and the feed-back from those interested is dealt with.

S. Zwangobani
EE Project Coordinator.

Environment Liaison Centre,
P.O. Box 72461,
Nairobi, Kenya.

Telephone: Nairobi 24770



Distribution: Workshop participants

ENVIRONMENTAL EDUCATION COOPERATION NEWS

No. 2, 28 December 1977

This month has seen a number of substantial changes to the EE Project of the ELC, hence the lateness of this newsheet. In the last newsheet we itemized a number of Needs, fulfillment of which is necessary for the further success of the Project. These were:

- Need 1. By April 1978, need more information regionally on NGOs involved in environmental education.
- Need 2. Between January and April 1978, need funds for the travel of the Steering Committee to at least one meeting.
- Need 3. By April 1978, need funds for a second meeting of the Steering Committee to be held at the same time as UNEP's Governing Council in May 1978.

There was the suggestion that we might be able to get some funds for travel of the Steering Committee (Needs 2 and 3) by this month through approaching the Dutch aid authority. This was not possible and we have now had to revise our plans to fit in with what is possible.

Revision of the EE Project

There is some unused travel money in the Project which was identified as specifically for the travel of observers to the Tbilisi Conference and then to the Geneva Workshop. We had a quota of 25 NGO representatives for that travel. Of the 25, two failed to use their tickets - one from Papua New Guinea and one from Botswana. There were also 3 places for Eastern Europeans which we did not manage to get any suitable nominations for. Thus, 5 places for travel were unused. We are revising our Project now to ask UNEP if they would allow us the credit for those 5 places so that the Steering Committee could use the money for their travel. There is one major problem with this particular revision, at least 50% of the money is in roubles and it will not be possible for this to be changed to hard currency as far as we know.

We will also ask for additional money, additional to the credit we are asking for mentioned above. This money would be to allow all 10 of the Steering Committee to meet if necessary.

Funds Available for Travel at Present

Earlier we had taken the precaution of asking that some of the money identified specifically for Tbilisi and Geneva travel be moved to a separate component in the current Project so that it could be hard currency for any travel needed. The amount remaining in this component will be \$2,865 US, approximately. So even if UNEP is unable to accept our revision (which we estimate could amount to \$3,000 US) we still have a little. Too little for a Steering Committee meeting though.

Plan for Follow-Up of Current EE Project

Given that we now have only 4 months to get the new project written up, agreed upon and funded, we have decided to orient the follow-up activities rather differently. Originally our concentration of effort and funds was to be on the proposed project document (which we are calling the 'Network Document' for ease of reference). In our original plan, the regional networks of NGOs interested in EE would have remained pretty much as is until the Network Project came into action, maybe at the end of 1978. However, the thrust of both this Project and the Workshop recommendations was to form regional networks in EE coordinated by a central organisation. As it seems likely there will be too little funds for the Steering Committee to meet, and therefore for their active involvement in the development of the Network Document, we have decided it would be best to concentrate on making functional the regional networks in EE. The evidence of these functioning networks would be of great assistance in getting funding agencies to support the Network Project. Knowing more of the problems of these regional networks from seeing them in action over the next 4 months would also guide the Steering Committee in what should be included in the Network Document. Bridget Hughes has been assigned to draw up the Network Document in Europe. The International Institute for Environment and Development has offered Bridget free office space and secretarial assistance. Serena Zwangobani will be in Nairobi and concentrating on developing the Network of NGOs interested in EE.

To summarize the current Project position:

The Project is divided into two parts -

- (a) Development of a project document known as the Network Document, following the resolution of the Geneva Workshop to seek funds to establish a central organization to coordinate regional EE networks among NGOs.

Once the Network Document is agreed upon by the Steering Committee funds will be sought for it.

To write the Network Document in such a way so as to attract funds, an organization capable of coordinating regional EE activities among NGOs has to be identified immediately and written into the Network Document. The Environment Liaison Centre will be the coordinating organization for this purpose.

Bridget Hughes will be responsible for writing up this project document. From mid-January her address will be:

c/o Richard Sandbrook,
I.I.E.D.,
10 Percy Street,
LONDON W1P ODR.
U.K.

- (b) Development of regionally centred EE networks of NGOs, based on the NGOs represented at the Geneva Workshop for EE Cooperation and those we have had letters of interest from amounting to about 100 so far.

For ease of division and cooperation with UNEP, the regions will be based on those of UNEP which are:

Africa, Asia and the Far East, Europe, Latin America, Middle East, North America.

This network will be developed mostly by mail. However, the Environment Liaison Centre now has one member of staff, Graham Searle, coordinating World Environment Day activities throughout the world, travelling extensively in Developing Countries to various NGOs. Graham will help develop the EE network through his contacts. We hope to have a second staff member for World Environment Day, a coordinator for Latin America, who could also help as he makes contacts.

It may be possible to use travel funds in the current project to fund travel of NGO representatives regionally where necessary in order to develop regional EE networks.

Serena Zwangobani will be responsible for this part of the follow-up. Her address remains at the Environment Liaison Centre, Nairobi.

Help Is Needed From You !

Developing the Network Document.

Are you agreed that the ELC should be the coordinating body written into the Network Document ?

If not, which specific organization do you suggest ? What qualities does it have that makes it suitable as a global coordinating body ? Has that organization agreed ? Who is best to talk to about this in that organization ? Remember that the organization you suggest must be one which the funding agencies can see has a proved record of related activity and that it would be able to continue functioning independently of any funds that funding agency could provide.

How do you envisage the global coordinating body will do its work over a 2 -3 year period ? How will it develop regional EE networks among NGOs ? What services will it provide the network ?

How can network cooperation be measured and assessed ?

How can the Steering Committee best work to advise Bridget ? Should they meet ? If so, under what conditions, for what purpose and where ? Which members of the Steering Committee can find their own funds to get to a meeting ? When should it be held, if at all ?

SUGGESTIONS AS SOON AS POSSIBLE PLEASE : to Bridget, London address.

Developing the EE Network Among NGOs.

To develop and use the present network, what do you suggest ?

For the proposed Network Project, we have to be able to show funding agencies the evidence of active regional EE networks among NGOs by April 1978 when this project finishes. How can we do this ? What do you think would be evidence ?

How can we select one NGO in each region which can coordinate the network regionally ?

Based on representation in the Steering Committee and attendance at the Geneva Workshop we suggest the following NGOs be the regional coordinators at least for the period remaining in the follow-up of this project:

Africa:	Environment Liaison Centre, Kenya.
Asia and the Far East:	Consumers Association of Penang, Malaysia.
Europe:	Institute for Environmental Education, Netherlands.
Latin America:	ASCONA, Costa Rica.
Middle East:	Chamber of Architects, Turkey.
North America:	Agricultural Alternatives Development Program, U.S.A.

You will find the contact person and the address of the above organizations on the list of participants from the Workshop.

Are the regions too big ? If so, what kind of break-up do you suggest ? Which NGOs might coordinate in smaller areas ?

What would each NGO regional coordinator be asked to do ? Should they send out information to encourage other interested NGOs to be listed in the network ? What information is relevant to collect so we know the regional EE resources among NGOs ? Would there be a need for the coordinator to travel in his/her region ? If so, for what purpose ?

What is the best way to find out the stocks of books, pamphlets, films, slides etc. held by regional NGOs which might be of use to other NGOs ?

We can use this newsletter to develop the network. Do you have news we can include ? Do you have suggestions of what can be included ?

What else ?.....

SUGGESTIONS AS SOON AS POSSIBLE PLEASE : to Serena, Nairobi address.

List of the NGOs interested in the EE Network.

A steady trickle of addresses are coming in for this list. It has been decided to arrange them alphabetically under each region with the addresses we have to hand at present. Others will be welcome and will be distributed as supplements to the original list. The list will be ready and distributed in January. We hope to get brief comments on the EE activities of each NGO on the list for a directory which will either be published as part of future newsletters or separately at the end of the project.

ELC Report on the Tbilisi Conference and Geneva Workshop.

This is in draft now and will be ready in January. All Workshop participants will get a copy and we will see how far the funds stretch for sending copies to others interested.

Time-table of Project Follow-Up Activities.

When Bridget is settled in London, and when we have some firm suggestions from you, the time-table will be easier to specify. At present it is:

January

- . Revision of current EE Project for travel funds goes to UNEP;
- . Bridget moves to London;
- . Tbilisi Conference/Geneva Workshop Report finished and distributed;
- . List of NGOs interested in the EE Cooperation Network finished and distributed;
- . Feed-back from NGOs coordinating regional EE activities;
- . EE Cooperation News No.3.

February

- . Circulate to the Steering Committee and other Workshop participants who are interested, the plan of what is to go in the first draft of the Network Document;
- . First draft of Network Document finished and distributed to the Steering Committee;
- . Feedback from NGOs coordinating regional EE activities;
- . EE Cooperation News No.4.

March

- . Steering Committee to meet ?
- . Other drafts of Network Document prepared and reviewed ?
- . Feedback from NGOs coordinating regional NGO activities;
- . EE Cooperation News No.5.

April

- . Produce and distribute a directory of NGO activities in EE based on the Network developed;
- . Final report on the current EE Project;
- . Final of Network Document and at least first approach to possible funding agencies;
- . Final EE Cooperation News No.6;
- . Bridget returns to Nairobi.

Distribution of 'EE Cooperation News'.

Both numbers 1 and 2 are probably too detailed about the current EE Project and the planned Network Project for any other than the Workshop participants. No.3 will be more general and sent to all interested not just the Workshop participants.

Correspondence received

Adelaida CHAVERRI. ASCONA, Costa Rica. Suggested funding possibilities, which we will follow up for the Steering Committee meeting. Worried that she had not heard from us, asked for information on some things of interest to her organisation.

John CONNELL. Caribbean Conservation Association, Barbados. Had some constructive comments to make on the EE Project.

Delmar BLASCO. ISMUN, Argentina. Has had problems getting our mail and wondered what had happened to us. We have since cabled and re-sent everything via another address,

Hubert DYASI, SEPA, Ghana. Already traveling away from home again and thinking of us and the network.

Liberty MHLANGA. ENDA, Senegal. Also travelling away from home and with helpful remarks about the Project. Advised us he was coming to Nairobi. We later met him in Nairobi and had very helpful advice from him. Liberty has agreed to continue to help us with the Project and will be back in Nairobi in March.

In all cases of people not having received news from us we had sent mail long before, in early November the first lot of documents went to each of the Workshop participants. I hope it has reached everyone by now.

Many thanks for the Christmas greetings we received and HAPPY NEW YEAR to each of you.

S. Zwangobani,
28th December, 1977.

EE SWITCHBOARD

Nos. 1 - 3



E E SWITCHBOARD

Centro de Enlace sobre el Medio Ambiente
P.O. Box 72461
Nairobi, Kenya
Teléfono: 24770

Centre de Liaison pour l'Environnement
P.O. Box 72461
Nairobi, Kenya
Téléphone: 24770

Environment Liaison Centre,
P.O. Box 72461,
Nairobi, Kenya
Telephone: Nairobi 24770

No. 1, January/February 1978

E E SWITCHBOARD NOT JUST ANOTHER NEWSLETTER

ENVIRONMENTAL EDUCATION (EE) IS AN ASPECT OF THE WORK OF ALMOST ALL NGOs WORKING IN THE ENVIRONMENT. INFORMING OTHERS ABOUT YOUR ACTIVITIES, IMPROVING THEIR UNDERSTANDING OF ENVIRONMENTAL ISSUES, ENCOURAGING OTHERS TO TAKE ACTION TO CONSERVE OR IMPROVE THE ENVIRONMENT MEAN INVOLVEMENT IN AN EDUCATIONAL PROCESS. ACROSS A WIDE RANGE OF PARTICULAR ENVIRONMENTAL INTERESTS, WHETHER IN DEVELOPED OR DEVELOPING COUNTRIES, NGOs TEND TO HAVE IN COMMON AN INVOLVEMENT IN THE PROCESS OF ENVIRONMENTAL EDUCATION.

RATHER THAN BEING ANOTHER NEWSLETTER CONCERNED WITH PARTICULAR ENVIRONMENTAL INTERESTS, THIS NEWSLETTER WILL ATTEMPT TO PUT INDIVIDUAL LOCAL, NATIONAL AND INTERNATIONAL NGOs WORKING IN EE IN CONTACT WITH ONE ANOTHER. ALTHOUGH WE WANT TO CARRY NEWS ITEMS ON INDIVIDUAL NGOs, MOST ARTICLES WILL AIM TO PROVIDE INFORMATION THAT SERVES AS A RESOURCE, OR AS A DIRECTION TO RESOURCES, THAT NGOs CAN USE TO IMPROVE THEIR EDUCATIONAL TECHNIQUES AND TO MAXIMISE THEIR EDUCATIONAL POTENTIAL. BOOKS, JOURNALS, TEACHING AIDS, FILMS ETC. ARE ENVIRONMENTAL EDUCATION RESOURCES WHICH WILL BE REFERRED TO, BUT THESE RESOURCES ARE OFTEN HARD TO COME BY AND IN THEIR PRESENT FORM ARE SOMETIMES ONLY marginally relevant TO THE PARTICULAR NEEDS OF DEVELOPING COUNTRY NGOs. ONE RESOURCE, WITH EDUCATIONAL METHODS AND MEDIA MATERIAL TESTED FOR STRENGTHS AND WEAKNESSES, IS YOUR ORGANISATION. HAVE YOU ARRANGED A CAMPAIGN TO EDUCATE THE GENERAL PUBLIC? RAISED MONEY FOR SEEDS TO BE USED IN A RURAL AREA? PRODUCED LITERACY MATERIAL FOR LOCAL WOMEN'S GROUPS? TALKED TO POLITICIANS ABOUT ENVIRONMENTAL LEGISLATION? LECTURED TO SCHOOL STUDENTS ON THEIR NATURAL ENVIRONMENT? PUBLISHED AN ARTICLE ON POPULATION? DESIGNED PLAYGROUND EQUIPMENT FOR LOCAL CHILDREN? CLEANED UP THE RUBBISH IN THE STREETS IN YOUR COMMUNITY? ... YOU ARE AN EDUCATOR - LET US HAVE YOUR IDEAS.

HOW DID YOU DO IT? WHAT WERE

THE SUCCESSES? WHERE DID YOU FAIL? WHY? HOW WILL YOU IMPROVE YOUR TECHNIQUES NEXT TIME? DID YOU WORK WITH OTHER NGOs ON ANY PROJECT? WHY? WHAT IS THE BEST WAY YOU HAVE FOUND TO COOPERATE WITH OTHER GROUPS? HOW COULD COOPERATION BE IMPROVED?

IF YOU HAVE A NEWSLETTER OR PUBLICITY MATERIAL ON PARTICULAR PROJECTS, WE WOULD BE INTERESTED - THEY ARE A RESOURCE.

GOING WITH THIS NEWSLETTER IS AN ADDRESS LIST OF NGOs WHO HAVE ALREADY SHOWN INTEREST IN EE. LATER WE WILL COLLECT SPECIFIC INFORMATION ON THE EE ACTIVITIES OF THOSE NGOs AND OTHERS ADDED IN SUPPLEMENTARY LISTS. WE SUGGEST YOU KEEP THIS LIST AS A RESOURCE FOR THE DEVELOPMENT OF AN EE NETWORK.

WE DO HOPE THAT THIS NEWSLETTER WILL HELP CONNECT NGOs IN DEVELOPED AND DEVELOPING COUNTRIES, PARTICULARLY THOSE SOUTH-SOUTH.

YOUR CONTRIBUTIONS OF ARTICLES AND NEWS ARE WELCOME NOW.

WORLD ENVIRONMENT DAY 1978

Since its inception in 1975, the Environment Liaison Centre (ELC) has encouraged and assisted non-governmental organisations (NGOs) to participate in World Environment Day (WED). Realizing the need to enhance further the communications and liaison between North and South and between different groups in the latter, particularly regarding vital environment and development issues, the ELC has selected the theme - Environment and Development - for WED 1978 (June 5th)

To promote WED 1978, the ELC is producing a comprehensive information package, covering such topics as food, water, land, population, health, shelter and services, technologies and energy, and employment and education/training. This will be distributed to WED participants accompanied by a poster and

pamphlet. A contest is under way to select the poster, the deadline for submissions being April 15, 1978 (not January 15 as may otherwise have been advertised). Those not selected will be displayed in Nairobi during WED week. An ELC representative will be visiting various NGOs to assist with their WED projects.

Though the ELC is focussing on a particular theme for WED 1978, its non-governmental affiliates are in no way restricted in their selection of the issues around which to centre their WED activities. Some WED 1978 projects in the making are:-

* bicycle ride from Paris to Moscow, via Brussels, Amsterdam, Bonn, Berlin and Warsaw, leaving Paris on June 5, 1978 and arriving in Moscow by early August, to promote ecology awareness.

Contact: Georges Krassovsky, Groupe cyclo-ecologique, "Sauvons la Nature", 7 rue Boucicaut, 75015, Paris, France.

* debate on Earth Day, March 21, 1978, on the WED theme - development within environmental constraints.

Contact: C.P. Ionnides, Dept. of Town Planning and Housing, Ministry of the Interior, Nicosia, Cyprus.

* symposia on "grow more trees" and "keep your babies healthy"

Contact: Mamoon-al-Rasheed, Bangladesh Volunteer Service 55 Dilkusha Commercial Area Dacca 2, Bangladesh.

CONTENTS

	Page
Expanded EE Programme—Caribbean	2
Asian views on the Environment	2
Environmental Chemistry in Africa	2
Medical Students Summer School on the Environment—1978	3
IYF—A vigorous Youth Movement	3
Using Radio in Rural Development	3
New International Directories in EE	4
A Resource Centre You can Contact	4
Meetings—February to May 1978	5
Sharing Technology	7
NGO-EE Network List 1	8

- * seminars on Agriculture/ Environment and Environmental Education; planting of 10,000 fruit trees; talks and forums on Environment Agriculture, Industrialisation, Conservation and related topics; slogan, poster and essay competitions; and publication of a WED commemorative magazine.

Contact: Rajen Awotar, Mauritius National Youth Committee for Environment and Conservation, c/o Young Farmers' Office, Youth Office, Royal Road, Phoenix, Mauritius.

- * planting of trees, student debates, exhibition, conference, demonstrations and regional training courses in Environmental Education.

Contact: V.K. Unnithan, Udaipur Environmental Group, 206 Ashok Nagar, Road 13, Udaipur - 313001, India.

- * "Museum of Future Possibilities" examining energy in relation to human development, planned for Olympia's Festival of Mind and Body, April 30 to May 7, 1978, complemented by other Festival features, including lectures, films, and a bookshop.

Contact: Sir John Sinclair, Bt., Museum of Future Possibilities, Festival of Mind and Body 1978, 16 Great Ormond Street, London WC1N 3RB, U.K.

EXPANDED ENVIRONMENTAL EDUCATION PROGRAMME - CARIBBEAN

The Caribbean Conservation Association is entering into a new phase of its environmental education programme. There are now 29 lecturers available to talk to secondary schools in Barbados and there are two new programmes for the news media. One of these, produced by Barbados Rediffusion, involves five minute interviews on the subject "The Face of Barbados" which gives plenty of scope for variety. The other, entitled "Topic of the Month", provides brief quotes on subjects ranging from trees to garbage to energy. The radio programmes are disseminated to radio stations throughout the Caribbean.

Enquiries to: Executive Director, Caribbean Conservation Association, Savannah Lodge, The Garrison, St. Michael, Barbados.

ASIAN VIEWS ON THE ENVIRONMENT

New publications.

1. *The Indian Environment Society* has just published the first issue of a periodical called "Hunting in the Sun". The periodical will serve as the Bulletin of the Society and will be published three times a year.

The aim of the Bulletin is to stimulate and excite interest in the environment among the general public. As a background to this, the Society has recently established a Youth Division and they are expecting to organise the Third International Youth Conference on Human Environment in December 1978.

Enquiries and requests for the Bulletin can be directed to:

- The Secretary-General, Indian Environment Society, 19-C Amar Colony, Lajpat Nagar IV, New Delhi 1100024, India.

2. Another publication of much interest coming from India is "The Environmentalist" edited by Dr. Brig Gopal, an experienced environmentalist. The first issue was produced in October 1977.

"The Environmentalist" is intended to fill an information gap on environmental issues, which is not filled by mass publications. It will provide a forum for discussion on problems of the environment and news from the region on all environmental activities.

Enquiries to: Dr. Brig Gopal, Department of Botany, University of Rajasthan, Jaipur 4, India.

3. The first issue of "Environmental Awareness" published by the *Indian Society of Naturalists* has recently been published. It is a quarterly journal on environmental conservation especially aimed at readers in the Indian sub-continent and South East Asia. Useful ways of approaching and acting on environmental problems will be outlined in the future editions of the journal to assist educational institutions and community organisations.

Enquiries to: Dr. G.M. Oza, Indian Society of Naturalists, Oza Building, Salatwada, Baroda 390001, India.

ENVIRONMENTAL CHEMISTRY IN AFRICA

Within a very short time an Environmental Chemistry network across Africa has become functional. It had its first meeting in Nairobi, Kenya, in September 1977, held in conjunction with the first meeting of the Association of the Faculties of Science in African Universities, from 19-23 September, 1977. UNESCO convened the meeting.

UNESCO had for some years been interested in creating networks of sciences in Africa. They were seen as an aid in the training of African scientific and technical personnel. Environmental Chemistry was identified as the field of the first of these networks and in late 1976 an investigation was made into the best way of establishing the network, resulting in the Nairobi meeting.

Two workshops running consecutively will be held at the end of March or early April 1978 to coincide with the University vacation. One Workshop will be in Nairobi and the other in Ibadan.

Environmental Chemistry has been defined as 'the chemistry of, or associated with, changes that occur in our environment as a result of man's exploitation of its natural resources'. All African universities and institutions whose teaching and research programmes fall within this definition can participate in the network.

The network, for administrative convenience, is divided into two very large regions - East and West Africa. Addresses for the coordinators in each of these regions are given below:

East Africa

Dr. S.O. Wandiga, Chemistry Department, University of Nairobi, P.O. Box 30197, NAIROBI, Kenya (Telephone: 43185/43553 Ext.200)

West Africa

Dr. Oladele Osibanjo, Department of Chemistry, University of Ibadan, IBADAN, Nigeria.

Briefly, the functions of the network are:-

- 1) carrying out cooperative research in areas related to environmental chemistry;
- 2) improving the capabilities of work laboratories in the network by training staff, maintaining and providing

equipment, and arranging inter-institutional services;

- 3) organising workshops and seminars, disseminating information and maintaining a directory of environmental chemists;
- 4) assisting in the upgrading of one of the institutions in French-speaking Africa so that training of technicians can be carried out;
- 5) encouraging teaching of analytical chemistry at undergraduate level;
- 6) instituting post-graduate educational programmes in Environmental Chemistry.

**MEDICAL STUDENTS SUMMER SCHOOL
ON THE ENVIRONMENT 1978**

A summer school on the environment for medical students is being organised to take place this year. The Standing Committee on the Environment, of the *International Federation of Medical Students Associations (IFMSA)*, has done considerable preliminary work on this, having prepared a handout with information, and organised a selection process for those who would like to participate. They are now involved in fund raising to support the course. The school will take place from 24 July to 4 August 1978 in Switzerland. It will be free of charge and limited to 30 places.

Medical curricula in most European countries contain specific parts dealing with Social and Preventive Medicine but usually there is little attention to the importance of the environment and human ecology. The summer school aims to fill this educational gap by transmitting to medical students basic information on health hazards from environmental pollutants, their detection, prevention and control. It is expected that attendance at the summer school will stimulate the participants to organise similar workshops in their own countries.

Enquiries to: SCOE-IFMSA,
P.O. Box 197, 1211 Geneva,
Switzerland.

**IYF - A VIGOROUS YOUTH
MOVEMENT**

With ever-increasing contacts in developing countries, Espen Wahle has a busy job as International Coordinator for the

International Youth Federation for Environmental Studies and Conservation (IYF). IYF have identified the great need for environmental education among youth and have shown they can successfully help in filling this need by encouraging environmental activities among youth groups around the world and by helping them at a local level to provide appropriate environmental training courses.

In developing countries there are now local regional coordinators for youth activities in Asia, India and Africa. For 1978 two training courses in environmental education have been organised in India, also one in Nepal and one in Kenya. Already plans are being made for the training courses to be held in Latin America and Africa in 1979.

Enquiries to: Espen Wahle,
IYF Office, Klostermolle,
Klostermollevej 48, DK-8660
Skanderborg, Denmark.
(telephone: 05/782044)

**USING RADIO IN RURAL
DEVELOPMENT**

Dialogue between rural people and technical/administrative personnel in Senegal is being developed using radio broadcasts. Thousands of villages tune in to broadcasts in their vernaculars on a wide variety of problems of rural development ranging from cooperative education to conservation of the natural environment.

The key to the success of this Senegalese communication system (operating since 1968) is the organisation of collective listening groups to hear the broadcasts. These groups are far more effective than a dispersed village audience. The groups stimulate and educate their neighbours by discussion of the broadcasts and build solidarity for taking action on the ideas they agree with. The listening groups are also responsible for the physical arrangements for listening.

Feedback from the listeners is gained by two methods, letters from listeners and taped interviews with them. The broadcasters interview farmers and record their views on tape; these interviews sometimes form the basis of broadcasts as they easily stimulate the opinions of other farmers who hear the broadcasts. Some of those hearing the broadcasts are also recorded on tape to get further feedback.

A bulletin 'Disco', distributed to farmers, is published as a feedback device, taking inform-

ation from correspondence and taped interviews as well as getting information from the technical and administrative personnel.

Some of the broadcast themes have been:

- cooperative education;
- use of modern techniques in agricultural production;
- protection of animal health; improvement of animal husbandry; practice of village poultry-raising;
- sanitation education: battle against endemic diseases (malaria, parasitosis, infantile illnesses, etc.); improvement of hygienic conditions (construction of latrines, water filtration, village pharmacies, etc.);
- nutrition education: diversification and balancing of food intake; consumption of local products; campaigns for the development of gardens;
- nature protection: reforestation; battle against brush and forest fires;
- social organisation of the people

**GUIDELINES TO ESTABLISHING AND
OPERATING A LISTENING GROUP**

1. *The selection of members of the listening group:*
 - a. number - 30 to 35
 - b. age - 20 to 35 years old
 - c. select people who live in the village
2. *The listening area:*
 - a. a neutral, calm area
 - b. an area accessible to all members of the group
3. *The selection of the animator:*
 - a. democratically
 - b. the position may be rotated
4. *The functions and responsibilities of the animator:*
 - a. tells the group of the time of the broadcast during the day
 - b. arrives at the listening area before the others
 - c. assembles the group well before the broadcast
 - d. turns on the radio to the correct station
 - e. assists in listening to the broadcast
 - f. surveys the reactions
 - g. turns off radio at the end of the broadcast
 - h. begins and chairs the

discussion

- i. promotes the discussion of questions asked
- j. helps derive conclusions from the discussion.
- k. prepares and sends a listening report
- l. sees that decisions of the group are carried out.

Source: ENDA, BP 3370, Dakar, Senegal.

New International Directories
in Environmental Education

UNESCO, International Programme in Environmental Education
UNESCO-UNEP.
International Directory of institutions active in the field of environmental education. Preliminary edition 1977. ED.77/WS/104

UNESCO, UNESCO-UNEP International Programme in Environmental Education.
International Directory of Individuals involved in environmental education. ED.77/WS/121.

These directories were compiled from information given in questionnaires from institutions and individuals working in environmental education. The information was computerized and details of the stored information can be obtained by applying directly to the Secretariat of UNESCO, the address for which is given at the end of this article. The Directory of Institutions contains information on the headings below. The information is arranged according to the alphabetical order of countries in which the institution is found. The headings are: Name of institution; address; type; main working language; the context of their activities; area of concern; responsibilities; groups concerned by their activities; services, publications and equipment which they are able to provide.

The Directory of Individuals

is also arranged according to the alphabetical order of countries in which the individuals work. The headings under which information for each individual is arranged are as follows: name; address; working languages; information on his/her institution; professional qualification; level and subject of studies; specialisation in the environmental field; educational activities; target group to which the activities are directed.

Each directory has indices at the back so that the individual or institution can be located by field of interest; type of activity or function; target group.

An example of information provided for one institution and one individual in each directory is given below (we have used examples of those we have contact with):

Directory of Institutions

Country: Mauritius

Mauritius National Youth Committee for Environment and Conservation, c/o Young Farmers Clubs, Youth House, Phoenix, Mauritius.
AREA OF INSTITUTIONAL ACTIVITIES: National; Regional within a country.
TYPE OF INSTITUTION: Private non-governmental
LANGUAGE(S): English; French; Hindi
FIELD(S) OF INTEREST: Land use and misuse; Food and agriculture; Pollution; Health and well being; Environmental study and understanding(general)
FUNCTION(S): Education in the non-formal system; Training of Teachers, leaders, specialists, etc.; Instructional programs (design and evaluation); Exchange of ideas and information; Funding for programmes.
TARGET GROUP(S): Primary students; Secondary students; Youth leaders; community leaders, Out of school youth; Peasants/Farmers.
SERVICE(S) PROVIDED: Meetings/Conferences/Workshops; Exhibitions; Radio/TV.
PUBLICATION(S) PROVIDED: Periodicals Magazines, journals, newsletters; Report of institutional activities; Research reports

Directory of Individuals

Country: International

JOHNSON, Victor Ogabe I.
PROFESSIONAL ADDRESS:
United Nations Environment Programme, P.O. Box 30552,

Nairobi, Kenya.
DISCIPLINE: Science Education
LEVEL: Ph.D.
FIELD(S) OF INTEREST: Physical energy phenomena; Socio-economic aspects; Environmental study and understanding(general)
ACTIVITIES: Teacher; Trainer; Lecturer; Political leader; Documentalist
TARGET GROUP(S): Pre-school children; Primary students; Secondary students; Higher education students; illiterates.
LANGUAGE(S): English

Both Government and Non-government institutes and individuals are noted in the directories. You or your organisation, may be interested in appearing in these directories. For this reason a check has been made in the directory of institutions to see if your organisation is listed.

Your organisation appears in the "International Directory of Institutions Active in the Field of Environmental Education. Preliminary edition 1977".

.....
If you would like any further information please contact the UNESCO Secretariat direct at:

Programme in Environmental Education,
UNESCO-ED/STE,
7 Place de Fontenoy,
75700 PARIS,
France.

A RESOURCE CENTRE YOU CAN
CONTACT

Books on ecology, environment, life style, pollution and related topics are held in a section of the general library of CRID (Centre pour la recherche Interdisciplinaire sur le Developpement/Centre for Interdisciplinary Research on Development)* The Library has about 35,000 documents related to environment and development. In 1977, a CRID task force under the coordination of Jacques Dorselaer, conducted an enquiry into the teaching of ecology issues via a questionnaire addressed to secondary school teachers. Results should soon be forthcoming.

* CRID, 152 Rue Valduc,
B-1160 Brussels, Belgium

MEETINGS - FEBRUARY TO MAY 1978

The meetings listed below have been taken mainly from published sources this time. We would hope that you will send us information on local, national and regional meetings so that in future we can inform people of environmental meetings going on in their geographical region which they would not find publicised in the usual internationally used directories. It does not matter if a meeting seems to have narrow relevance to people elsewhere, our records may indicate others interested in a similar topic even though they may be miles away from you. For example, a local meeting held to discuss the threat of logging to Sumatran rhinoceroses in the Endau-Rompin Forest Reserve, Malaysia, may have relevance to other wildlife conservation groups in Eastern Africa if only to share techniques used to get international support for the protection of wildlife in these two areas.

The information we require would be the following:-

- Title of meeting
- Dates of meeting - or month and year if the exact date is not known
- Town and country in which the meeting will be held
- Contact person who could answer enquiries by mail
- Contact person's address and telephone no.
- Organizer(s) of the meeting
- Whether attendance at the meeting is restricted to those who have certain qualifications or is open to all interested
- Cost - if any - to attend meeting - e.g. registration fee, etc.
- Details for those who can contribute papers or exhibitions
- Details of the topics to be discussed at the meeting.

February 8 - 10

National Western Mining Conference and Exhibition
Held: Denver (Colorado), U.S.A.
Contact: D.R. Cole, 330 Denver Hilton Office Building, 1515 Cleveland Place, Denver, Colorado 80202, USA

February 13 - 15

Nondestructive Evaluation in the Nuclear Industry, Second International Conference
Held: Salt Lake City (Utah), U.S.A.
Contact: Dr. R. Natesh, Materials Research Inc., Box 225, Salt Lake City, Ut. 84110, U.S.A.

February 20 - 24

Technology Transfer to Developing Countries, Second World Congress.
Held: Chicago (Illinois), U.S.A.
Contact: Mrs. E. Prine, Dr. Dvorkovitz and Associates, Box 1748, Ormond Beach, Florida 32074, U.S.A.

February 21 - 26

Water Pollution Control in Developing Countries
Held: Bangkok, Thailand
Contact: Dr. E.A.R. Ouano, Conference Secretary, Asian Inst. of Technology, P.O. Box 2754, Bangkok, Thailand

March 1 - 8

Environmental Science Education Workshop
Held: Nairobi, Kenya
Contact: Mike Savage, Kenya Inst. of Education, P.O. Box 30231, Nairobi, Kenya

March 6 - 7

International Recycling Conference
Held: Basle, Switzerland
Contact: Mr. M.E. Henstock, University of Nottingham, Dept. of Metallurgy & Materials Science, University Park, Nottingham, NG7 2RD, U.K.

March 12 - 16

Society of Toxicology Annual Meeting
Held: San Francisco (California), U.S.A.
Contact: Dr. G.C. Boxill, Society of Toxicology, c/o Wyeth Labs., Box 861, Paoli, Pennsylvania 19301, U.S.A.

March 15 - 16

Environmental Chemistry and Health, Royal Society Meeting
Held: London, UK
Contact: The Royal Society, 6 Carlton Terrace, London SW1Y 5AG, U.K.

March

Environmental Management Education for Technicians and Administrators,

17-19 Held: Darjeeling (W. Bengal), India

23-24 Held: Varanasi (U.P.), India

28-30 Held: Udaipur (Rajasthan), India

Contact: Dr. Desh Banchu, Indian Environment Society, 8 Darya Ganj, New Delhi 110002, India. (telephone: 278764)

March 18 - 28

Intergovernmental Conference on Protection of the Marine Environment
Held: Kuwait
Contact: S.Keckes, Regional Seas PAC, UNEP Liaison Office, Palais des Nations, 1210 Geneva, Switzerland

March 21

Debate on Earth Day
Held: Nicosia, Cyprus
Contact: C.P. Ionnides, Dept. of Town Planning and Housing, Min. of the Interior, Nicosia, Cyprus

March 26 - 30

Resource depletions, energy alternatives and the quality of life in the year 2000, First World Congress
Held: Riyadh, Saudi Arabia
Contact: Dr. S. McLivary, Int. Assoc. for Advancement of Earth and Environmental Sciences, c/o University of Riyadh, Riyadh, Saudi Arabia

March 28 - April 7

Integrated Science Education Worldwide, International Conference
Held: Nijmegen, Netherlands
Contact: Frits Dekkers, Fac. of Science, University of Nijmegen, The Netherlands

March (end)

Environmental Chemistry Network Workshop, East and Central Africa
Held: Nairobi, Kenya

Contact: Dr. S.O. Wandiga, Chemistry Dept., University of Nairobi, P.O. Box 30197, Nairobi, Kenya (telephone: 43185/43553 Ext. 200)

April (beginning)

Environmental Chemistry Network Workshop, West Africa
Held: Ibadan, Nigeria
Contact: Dr. Oladele Osibanjo, Dept. of Chemistry, University of Ibadan, Ibadan, Nigeria.

April 3 - 12

Working Group of Governmental Experts on Environmental Law
Held: Geneva
Contact: Environmental Law Unit, United Nations Environment Programme, P.O. Box 30552, Nairobi, Kenya

April

Pulp and Paper Environmental Conference
Held: Boston (Mass.), U.S.A.
Contact: W.H. Gross, Technical Assoc. of the Pulp and Paper Industry, R.A. Klucken, Sr.Div.Admin.Operations, 1 Dunwoody Park, Atlanta, Georgia 30341, U.S.A.

April

Asian Environment Council Conference
Held: Bangkok, Thailand
Contact: Viroj na Bangchang, Asian Environment Council, 1787-9 New Petchburi Road, Bangkok, Thailand

April 30 - May 7

Olympia's Festival of Mind and Body
Held: London, U.K.
Contact: Sir John Sinclair Museum of Future Possibilities, Festival of Mind and Body 1978, 16 Great Ormond Street, London WC1N 3RB, U.K.

May 9 - 25

Governing Council of UNEP (GC VI)
Held: Nairobi, Kenya
Contact: Dr. Gary Herbertson, NGO Liaison Officer, United Nations Environment Programme, P.O. Box 30552, Nairobi, Kenya

May 10 - 13

International Technical Communication Conference
Held: Dallas (Texas), U.S.A.
Contact: J.W. Trumble, Gardner-Denver Co., Box 26208, Dallas, Texas, 75226, U.S.A.

May 15 - 17

International Conference on Residuals, Additives and Materials Properties: The detrimental and beneficial effects of minor constituents on materials properties
Held: London, U.K.
Contact: Dr. Colin Lea, National Physical Laboratory, Teddington, Middx. TW11 0LW, U.K.

May 24 - 25

Sub-Lethal Effects of Pollutants in the Sea, Royal Society Meeting
Held: London, U.K.
Contact: Royal Society, 6 Carlton House Terrace, London SW1Y 5AG, U.K.

May

Third World Symposium on Educational Drama
Held: Dundalk, Ireland
Contact: Mr.S. Casey, Irish National Centre, Grove Street, Dundalk, Ireland

by users are being shared south-south, among organisations and governments in Latin America, Africa and Asia. The most recent meeting concerning this programme, known as "Sharing Traditional Technology", took place in Cotonou, Benin, from 26 December - 31 December 1977.

The programme developed out of a project designed by the *Marga Institute*, Sri Lanka for the United Nations University. The overall coordinator is Chandra H. Soysa of the *Marga Institute*.¹

The programme is already making good progress, having the support of organisations and a number of governments. The latter are, at the highest decision making level, shaping their policies to encourage the use of environmentally sound traditional technologies. Benin is one such Government. They have, for example, started competitions in the preparation of cassava for fufu and gari - traditional foods. At the actual level of food preparation women are mainly involved, but the best foods need good farming with suitable tools and techniques and the work of the men. Such competitions can help to educate whole communities and encourage the best traditional technologies. Governments with little economic resources and struggling to improve the livelihood of the mass of their people are finding much to be recommended in supporting appropriate traditional technologies, especially when they are related to the ecological balance of particular regions. For example, it is often possible to raise chickens and use the waste products as food for fish which in turn are farmed in conjunction with rice-growing. Part of the animal waste can also be used for compost to provide fertilizer and heat for energy. Such farming provides nutritious food, some energy and cash products in an environmentally sound manner.

The programme has involved government and non-government organisations, and individuals in collecting information on traditional technologies for an inventory. The techniques for collecting information are simple and start with looking at all forms of traditional technologies available locally or the products of these technologies. For example, on a trip to the local market, palm-oil might be sold. The traditional methods of producing palm-oil would be followed to check for the environmental consequences of its production. The social events around the production of the oil would also be recorded and an analysis made of the economics of the whole process. In the case of palm-oil, a comparison can then be made between the traditional

techniques and large scale industrial production of the oil. The industrial process has been found to waste a portion of the oil and the delicate timing required in fermentation during the process is not possible, leaving the industrially produced oil of inferior taste.

Self-reliance in the essential aspects of life, such as food and shelter, is often within the grasp of societies having little financial resources if they rely on environmentally sound traditional technologies. They need not import materials, machinery or 'expert' personnel, making the process cheap, environmentally and ecologically safe and often usefully employing many people.

Palm-oil production is a process ecologically specific to certain parts of the world as are many processes using traditional technologies. There are, however, traditional technologies associated with the palm tree which can be shared with ecologically different regions, for example, the use made of palm leaves for fans, walls of houses and rooms, screens against wind and sun, and articles of clothing.

*ENDA (Environment Training Programme)*² - the African coordinating body for 'Sharing Traditional Technology' is shortly to devote a complete issue of their periodical 'African Environment' to cooking stoves produced south-south using traditional technologies. The use of solar energy at village level has been particularly successful in Latin America, and it is hoped that the traditional technologies used there and elsewhere south-south will be able to be published in the near future also. The coordinating body for the programme in Latin America is the *United Nations Environment Programme*³ in Mexico.

¹ The Marga Institute, P.O. Box 601, 61 Isipathana Mawatha, COLOMBO 5, Sri Lanka.

² ENDA, B.P. 3370, DAKAR, Senegal.

³ UNEP, Edificio Naciones Unidas, President Masaryk 29, Apartado Postal 6-718, MEXICO CITY 5 D.F., Mexico.

SHARING TRADITIONAL TECHNOLOGY

Ideas on the use of traditional technologies and their control

List 1.

Comite National pour l'Environnement,
B.P. 643,
ALGER-GARE,
Algeria.

Mohamed Kolai

Algeria

Mohamed Kolai

AFRICA REGION

Direction des Forets, de la Chasse
et de l'Environnement,
Sce. National de l'Environnement,
B.P. 447,
NDJAMENA,
Chad.

Simon Bembaye Leykim

Chad

Simon Bembaye Leykim

Al-Ahram Science Clubs,
5 Ibrahim Naguib Street,
Garden City,
CAIRO,
Egypt.

Mansour Hazem

Egypt

Mansour Hazem

Al-Ahram Science Clubs,
Koroum Street,
Dokki,
CAIRO,
Egypt.

Magdi Ghareeb

Magdi Ghareeb

Al-Ahram Science Clubs,
Madinet Al-Allam,
Building No. 2,
CAIRO,
Egypt.

Rizk Youssef

Rizk Youssef

Egyptian Society for Environmental
Sciences,
1 Sh. Elhamy, Tager Building,
Garden City,
CAIRO,
Egypt.

Prof. Dr. M.M. El-Fouly

Prof. Dr. M.M. El-Fouly - Secretary General

Science Education Programme for
Africa (SEPA),
Box 9169, AIRPORT,
ACCRA,
Ghana.

Hubert Dyasi

Ghana

Hubert Dyasi - Programmes Director

Tel: 75707

Cable: SEPA

African Social Studies Programme,
P.O. Box 44777,
NAIROBI,
Kenya.

G. Adewole

Kenya

C. Adewole

Tel: 28344

Afrolit Society,
P.O. Box 72511,
NAIROBI,
Kenya.

Mary Opiyo

Mary Opiyo

Cable: OIKUMENE

Tel: 338211/62/63

British Council,
Box 40751,
NAIROBI,
Kenya.

Mr. Moss

Mr. Moss

Tel: 334855

*Attended NGO Workshop for
Environmental Education
cooperation, 28-30 October
1977 in Geneva, Switzerland

Environment Liaison Centre,
P.O. Box 72461,
NAIROBI,
Kenya.

S. Zwangobani

Serena Zwangobani, E.E. Project *
Coordinator

Tel: 24770

Family Planning Association
of Kenya,
P.O. Box 30581,
NAIROBI,
Kenya.

Mrs. A. Gethi

Mrs. A. Gethi - Executive Director

Cable: FAMPLAN NAIROBI

Tel: 28029/25697

Kenya Science Teachers College,
P.O. Box 30596,
NAIROBI,
Kenya.

Mr. A.W. Mbogho

Archie W. Mbogho - Principal

Tel: 566072/73/79

National Christian Council of Kenya,
P.O. Box 45009,
NAIROBI,
Kenya.

Mary Opiyo

Mary Opiyo - Adult Education
and Literacy Teacher
Training Programme

Tel: 338211/62/63

Cable: OIKUMENE

United Nations Environment Programme,
P.O. Box 30552,
NAIROBI,
Kenya.

Gary Herbertson

Gary Herbertson - NGO Liaison
Officer

Tel: 333930

Cable: UNITERRA

United Nations Environment Programme,
P.O. Box 30552,
NAIROBI,
Kenya.

Victor Johnson

Victor Johnson - Chief, Environment
Education & Training Unit

Tel: 333930

Cable: UNITERRA

Wildlife Clubs of Kenya,
P.O. Box 40658,
NAIROBI,
Kenya.

Simon M. Muchiru

Simon M. Muchiru

Tel: 20141

Federation of Liberian Youth (FLY),
P.O. Box 568,
MONROVIA,
Liberia.

S.T. Akoi

Liberia

Stephen T. Akoi

Tel: 22376

Libyan Science Scientific Society,
P.O. Box 9907,
TRIPOLI,
Libya.

Bet el Mal Mohamed

Libya

Bet el Mal Mohamed

Institut Mauritanien de Recherche
Scientifique,
B.P. 196 Nouakchott,
MAURITANIA.

Abdallah Babacar

Mauritania

Abdallah Babacar

Mauritius National Youth Committee
for Environment and Conservation,
c/o Young Farmer's Office,
Youth Office,
Royal Road,
PHOENIX,
Mauritius.

Rajen Awotar

Ecole Mohammadia des Ingenieurs,
8 rue de Moscou,
Quartier Ocean,
RABAT,
Morocco.

Maria Charaf

Ministère de la Jeunesse, des
Sports et de la Culture,
Etudiant à l'Ecole de Pédagogie,
Université de Niamey,
NIAMEY,
Niger.

Sanda Bagnou

National Consumers Association
of Nigeria,
P.O. Box 851,
CALABAR,
C.R. State,
Nigeria.

E.F. Udoh

Youth Environment Programme
for West Africa,
P.O. Box 199 (Ondo),
ONDO STATE,
Nigeria.

V. Ninan

Environment Training Programme (ENDA),
P.O. Box 3370,
DAKAR,
Senegal.

Liberty Mhlanga

Institute of Development Management,
Mzumbe,
P.O. Box 604,
MOROGORO,
Tanzania.

H.F.M. Mlay

Association Tunisienne pour la
Protection de la Nature et de
l'Environnement,
12 rue Tantaoni Al Jawhari el Omrane,
TUNIS,
Tunisia.

Z. Ben Mustapha

General Union Palestine Students,
B.P. 1023,
TUNIS,
Tunisia.

Said Abou Ali

Jeunes Science Tunis,
28 Avenue Habib Bourguiba,
TUNIS,
Tunisia.

F. Ben Hassine Bey

Mauritius

Rajen Awotar

Tel: 64-980

Cable: YONGFARMER PHOENIX

Morocco

Maria Charaf

Niger

Sanda Bagnou

Nigeria

E.F. Udoh - Executive Committee
Member

Vilanilathu Ninan

Cable: YEPWA ACE ONDO

Tel: Ondo 2174

Senegal

Liberty Mhlanga

Tel: 505-91/506-87

Cable: IDEP, DAKAR

Telex: 579 IDEP Dakar

Tanzania

H.F.M. Mlay - Head, Department
of Business Studies

Cable: IDM MOROGORO

Tel: 2401/2294

Tunisia

Zakaria Ben Mustapha - President

Tel: 288141

Said Abou Ali

Faycal Ben Hassine Bey
Chairman

Tel: 245-088

United Student Palistinen Tunis,
P.O. Box 1023,
TUNIS,
Tunisia.

Ahmed Mazn

Ahmed Mazn

Environmental Health Officers
Association,
P.O. Box 735,
KABWE,
Zambia.

Simon A. Goma

Zambia

Simon A. Goma - Hon. Secretary

Cable: PROMEDICO KABWE

Tle: 5548

Mindolo Ecumenical Foundation,
P.O. Box 1493,
KITWE,
Zambia.

B.W. Shonga

B.W. Shonga - NGO Coordinator

Cable: MINCEN

Tel: 2351/4598

Wildlife Conservation Society,
P.O. Box 255,
LUSAKA,
Zambia.

Mr. I. Tanner

Ian Tanner - Executive Director

Tel: 72824

Tasmanian Environment Centre Inc.,
102 Bathurst Street,
HOBART,
Tasmania,
Australia.

Dick Friend

Australia

Dick Friend - Director

Tel: 002 345543

ASIA AND THE PACIFIC

Murray Valley Development League,
P.O. Box 359,
ALBURY,
New South Wales 2640,
Australia.

G. Vernon Lawrence

G. Vernon Lawrence - Executive
Director

Tel: 060/21 30 49

Bangladesh Volunteer Service,
55 Dilkusha Commercial Area,
DACCA 2,
Bangladesh.

Mamoon-al-Rasheed

Bangladesh

Mamoon-al-Rasheed - Executive
Director

Tel: 256850

National Scientific Committee on
Problems of Environment (SCOPE),
Academia Sinica, 128 Yenchiu Road,
TAIPEI,
Republic of China.

Prof. Tsu-Chang Hung

Republic of China

Tsu-Chang Hung - Executive
Secretary

Tel: 761-4170

Youth Environment Action Group,
Metropole Building, 7th Floor,
57 Peking Road,
KOWLOON,
Hong Kong.

Mr. D. Ma

Hong Kong

Dicky Ma - External
Vice-Chairman

Tel: 3-687064

Appropriate Technology Development
Association,
P.O. Box 311,
Ghandi Bhawan,
LUCKNOW 22 6001,
U.P., India.

Mr. M.M. Hoda

India

M.M. Hoda - Director

Cable: APTECH

Tel: 23451

Central Young Mizo Association,
Aizawl 796001,
MIZORAM,
India.

C. Vulluaia

C. Vulluaia - General
Secretary

Tel: 430

COSTED (Committee on Science and
Technology in Developing Countries),
Indian Institute of Science,
BANGALORE 560 012,
India.

Prof. S. Bhagavantam

Prof. Bhagavantam,
Cable: COSTED BANGALORE
Tel: 30409/30628

Family Welfare Centre,
21 Museum Road,
BANGALORE - 560025,
India.

Br. M.M. Mascarenhas

Marie Mignon Mascarenhas

Friends of the Trees,
Moti Niwas,
5 College Wadi,
RAJKOT 360 001
India.

Nautamlal C. Tejpal

Nautamlal C. Tejpal
Tel: 25488

Ghandi Peace Foundation,
221/3 Deendayal Upadhyaya Marg,
NEW DELHI 110002,
India.

Radhakrishna

Mr. Radhakrishna - Secretary
Cable: SATYAGRAHA
Tel: 272396/7/8

Gorakhpur Environment Action Group,
Parth Sarathi Roy,
Mishra's Compound,
Betiahata,
GORAKHPUR 273001,
U.P.,
India.

Miss G. Kaur

Gurmeet Kaur

Government College,
Lansdowne (Garhwal),
U.P.,
India.

Dr. RC. Naithani

R. C. Naithani

Indian Environment Society,
8 Darya Ganj,
NEW DELHI 110002,
India.

Desh Bandhu

Desh Bandhu
Tel: 274653

Indian Human Ecology Council,
Department of Botany,
University of Rajasthan,
JAIPUR 302004,
India.

Brij Gopal

Brij Gopal

Indian Youth Association for Envir-
onmental Studies and Conservation,
73 Kaka Nagar,
NEW DELHI 110003,
India.

Pradeep Sankhala

Pradeep Sankhala - President
Tel: 382175

Indian Youth Population Coalition,
39/15 Appar Swami Koil Street,
MADRAS 600019,
India.

K.M. Susai Benjamin

K.M. Susai Benjamin -
Executive Chairman
Tel: 552380
Cable: POPULATION MADRAS

International Commission on
Irrigation and Drainage,
48 Nyaya Marg,
Chanakyapuri,
NEW DELHI 110021,
India.

K.K. Framji

K.K. Framji - Secretary
Tel: 376837/375679
Cable: INTCOIR

International Society for
Tropical Ecology,
Department of Botany,
Banaras Hindu University,
VARANASI 221005,
India.

K.C. Misra

K.C. Misra - Secretary

International Youth Federation,
36 Gundia Bheru,
Gautomgali,
UDAIPUR 313001,
India.

Madhu Sudan Sharma

Madhu Sudan Sharma

Krishnanagar Social Welfare
Education Centre,
Kirshna Nagar,
JORHAT,
Assam.
India.

Kalidasdeva Sharma

Kalidasdeva Sharma -
Chairman

Mitraniketan (Community
Centred Education),
Vellanad P.O.,
Dt. Trivandrum
KERALA,
India.

K. Viswanathan

K. Viswanathan - Director,
Tel: Kattakada 45
Trivandrum 2904
Cable: MITRANAD

Nagaland Peace Centre,
Peace Centre,
KOHIMA 797001,
NAGALAND,
India.

Dr. M. Aram

M. Aram - Director
Tel: 392

Safai Vidyalaya (Rural Health
and Sanitation Training Inst.),
Harijan Ashram,
AHMEDABAD 13,
India.

Ishwarbhai J. Patel

Ishwarbhai J. Patel -
Principal
Tel: 86250

Udaipur Environmental Group,
c/o Dept. of Zoology, SBSH,
University of Udaipur,
UDAIPUR 313001, Rajasthan,
India.

Prof. V. Narain

V. Narain - Advisor
Tel: 3955

Vikram A. Sarabhai Community
Science Centre,
Navrangpura,
AHMEDABAD 9,
India.

L.S. Prahlada Rao

L.S. Prahlada Rao -
Director
Tel: 42914
Cable: COMCENTRE

Village Reconstruction Organisation,
Brodiepet 6/9,
GUNTUR (A.P.), 522002,
India.

Prof.M. Windey

M.A. Windey - Secretary

Tel: 24145

Cable: CRISIS

World University Service,
c/o Dept. Pendidikan & Kebudayaan,
Senayan, Tromol POS 190,
JAKARTA,
Indonesia.

Achjani Atmakusuma

Indonesia

Achjani Atmakusuma

Tel: 581436/581987/581466

Jishu-Koza Citizens Movement,
c/o Jun Ui,
Faculty of Urban Engineering,
University of Tokyo,
Hongo, Bunkyo-du,
TOKYO,
Japan 113.

Professor Jun Ui

Japan

Jun Ui - Chairman

Tel: 812-2111, Ext.7411

Environmental Protection Inst.,
C.P.O. Box 6978,
SEOUL,
Korea.

Chang-Geum Park

Korea

Chang-Geum Park -

Secretary General

Asian Youth Council,
Suite 6.08, 6th Floor,
Wisma Central, Jalan Ampang,
KUALA LUMPUR 04-07,
Malaysia.

K.V. Reddy

Malaysia

K.V. Reddy - Secretary General

Tel: 25550

Cable: ASIAYOUTH

Committee for Science and Technology
in Developing Countries, (COSTED)
Faculty of Agriculture,
University of Malaya,
Pantai Valley,
KUALA LUMPUR,
Malaysia.

Prof. F. Kalpage

F.S.C.P. Kalpage

Tel: 53484

Cable: FACULTI AGRICULTURE
UNIVSEL MALAYSIA

Consumers Association of Penang,
21-C Codrington Avenue,
PENANG,
Malaysia.

Irene Fernandez

Irene Fernandez *

Tel: 63516/20361

Environmental Protection
Society, Malaysia,
127 Jalan 17/14.
Petaling Jaya,
SELANGOR,
Malaysia.

Gurmit Singh

Gurmit Singh - President

Tel: 03 564 287

Environmental Studies Department
Universiti Pertanian Malaysia,
P.O. Box 203,
SUNGLI BESAR,
Selangor,
Malaysia.

Wong Kien Keong

Wong Kien Keong -

Academic Coordinator

Bureau of Asian Affairs,
P.O. Box 154,
MANILA,
Philippines.

Amando Kapauan

Philippines

Amando Kapauan

Tel: 998721

Cable: ATENEODE MANILA

Institute of Mass Communication,
University of the Philippines,
Diliman,
QUEZON CITY,
Philippines.

Dr. Gloria Felican

Gloria Felican - Dean
Tel: 993188
Cable: MASSCOM MANILA

World University Service,
c/o Manila Central University,
D-2805 Pugoso,
STA. CRUZ,
Manila,
Philippines.

F.R.C. Caluya

Fernando-Ruben C. Caluya
- Chairperson
Tel: 264586

Environment Law Centre,
16 Jawatte Road,
COLOMBO 5,
Sri Lanka.

J. Charitha Ratwatte

Sri Lanka

J. Charitha Ratwatte -
Director
Tel: 84376

Family Planning Association
of Sri Lanka,
37/27 Bullers Land,
COLOMBO 7,
Sri Lanka.

Dayanath C. Jayasuriya

Dayanath C. Jayasuriya
Tel: 84269
Cable: FAMPLAN, COLOMBO

International Commission on Irrig-
ation & Drainage,
Irrigation Department,
P.O. Box 1138,
COLOMBO 7,
Sri Lanka.

S.H.C. de Silva

S.H.C. de Silva
Tel: 83301-4
Cable: DIRRIQ

National Council of YMCAs,
P.O. Box 381,
COLOMBO 1,
Sri Lanka.

Grantham Fernando

Grantham Fernando -
Asst. Sect. General
Tel: 22164
Cable: MANHOOD COLOMBO

National Heritage,
No. 41, 1/2 Gregory's Road,
COLOMBO 7,
Sri Lanka.

Ranil Senanayake

Ranil Senanayake

Asian Environment Council,
1787-9 New Petchburi Road,
BANGKOK,
Thailand.

Viroj na Bangchang

Thailand

Viroj na Bangchang -
Chairperson
Tel: 251-2426
Cable: KENYONECK
Telex: TH 2023 KENECK

Fiji National Youth Council,
G.P.O. Box 961,
SUVA,
Fiji.

Hassan M. Khan

Fiji

Hassan M. Khan -
Executive Secretary
Tel: 312197
Cable: FIJIYOUTH

PACIFIC REGION

National Trust for Fiji,
P.O. Box 2089,
SUVA,
Fiji.

Uday Raj

Uday Raj
Tel: 25807
Cable: UNIVERSITY SUVA
Telex: fj 2276

NZ Clean Air Society Inc.,
P.O. Box 2363,
CHRISTCHURCH,
New Zealand.

Mrs. J. Holm

New Zealand

Janet Holm - President

Department of Biology,
University of Papua New Guinea,
Box 4820, University P.O.,
Papua New Guinea.

Lance Hill

Papua New Guinea

Lance Hill - Chairperson

Tel: 253900

Cable: UNIVERSITY
PORT MORESBY

Yanpela Didiman,
P.O. Box 80,
LAE,
Papua New Guinea.

Savey Ronuc

Savey Ronuc

Tel: 423711

Cable: ELCONG, LAE

International Committee for Research
and Study of Environmental Factors,
B.P. 196,
1050 BRUXELLES,
Belgium.

Mme. C. Capel-Boute

Belgium

C. Capel-Boute -
Secretary-General
Tel: (02) 649.00.30
Ext. 3025

EUROPE REGION

Jeunesses Scientifiques
de Belgique,
Chaussée de Haecht 147,
B-1030 BRUSSELS,
Belgium.

Raymond Petit

Raymond Petit;
Henriette Petit

Survie-Belgique,
Quai du Halage 54,
4540 VISE,
Belgium.

Maurice Andre

Maurice Andre

- International Secretary

World Environment and Resources
Council,
University of Louvain,
Ave. G. Lemaitre 13,
B-1348 LOUVAIN-LA-NEUVE,
Belgium.

P. Laconte

P. Laconte

International Youth Federation for
Environmental Studies & Conservation,
Amerikavej 3B MZ.TV,
DK-1756 KØBENHAVN V,
Denmark.

Birgith Sloth

Denmark

Birgith Sloth - President

Amenagement et Nature,
21 rue du Conseiller Collignon,
75016 PARIS,
France.

R. Bechmann

France

Roland Bechmann - Director

Tel: 870 1500

Combat pour l'Homme,
7 rue Boucicaud,
75015 PARIS,
France.

Georges Krassovsky

Georges Krassovsky -
Director

Tel: 540 41 80

ESSCA,
42 Avenue de la Gare,
NOYERS 41140,
France.

Alain Guignard

Alain Guignard

Federation Internationale
d'Economie Familiale,
64 Ave. Edouard Vaillant,
92.100 BOULOGNE,
France.

Gilberte Darbre

Gilberte Darbre

Tel: 6039039

Federation Nationale des
Clubs Scientifiques,
Palais de la Decouverte,
Avenue Franklin Roosevelt,
75008 PARIS,
France.

Philippe Huchon

Philippe Huchon

International Council of
Scientific Unions,
51 Bld. de Montmorency,
75016 PARIS,
France.

Michael Baker

Michael Baker,
F.S.C.P. Kalpage

Tel: 527-7702/525-0329

Cable: ICSU PARIS 016

Telex: ICSU 630553F

Jeunes-Science Provence,
Rue du Dr. Escat (Angle rue de Berteuil),
13-MARSEILLE,
France.

Léon Cassand

Léon Cassand

Lab. de Biologie Marine et
Observatoire de la Mer,
Faculté des Sciences et Techniques,
ST. JEROME,
13013 MARSEILLE,
France.

Nardo Vicente

Nardo Vicente

ASFOTT (Athens Society of
Friends of the Trees),
22 Odos Anagnostopoulou,
ATHENS 136,
Greece.

Emily Zombanaki

Greece

Emily Zombanaki

Tel: 4813.877

World Federation of
Democratic Youth,
Ady Endre u. 19,
BUDAPEST II,
P.O. Box 147,
Hungary.

Peter Reinhardt

Hungary

Peter Reinhardt

Tel: 128640

United Schools International,
Euro-African Office,
Via F. Daverio 14,
00152 ROMA,
Italy.

Prof. E. Bestazzi

Italy

Edvige Bestazzi -

President

Tel: 580 1173/589 4178

Jeunes et Environnement,
B.P. 374,
Luxembourg-Ville,
LUXEMBOURG.

Jules Diederich

Luxembourg

Jules Diederich

Ligue Luxembourg pour l'Etude
et la Protection des Oiseaux (LLEPO),
32 rue de la Poret,
LUXEMBOURG,
Luxembourg.

Henri Rinnen
Tel: 48 61 37

Henri Rinnen

GAK Malta,
Kunsill Centrali,
Institut Kattoliku,
FLORIANA,
Malta.

Malta
Charles Carabolt
Tel: 28429/27031/22239

Charles Carabolt

International Ocean Institute,
University of Malta,
MSIDA,
Malta.

Fox Vanderbilt
Tel: 36450

Fox Vanderbilt

Malta Ornithological Society,
P.O. Box 498,
VALLETTA
Malta.

Alfred E. Baldacchino -
Hon. General Secretary

A. Baldacchino

National Trust of Malta,
133 Britannia Street,
VALLETTA,
Malta.

Calleja Karl

Calleja Karl

Institute for Environmental Education,
Plantage Middenlaan 41,
AMSTERDAM,
Netherlands.

Netherlands
Ron ten Kortenaar *
Tel: 020 228115

Ron ten Kortenaar

Institut des Science Economiques,
Universite de Varsovie,
DLUGA 44150, VARSOVIE,
Poland.

Poland
Leon Zurawicki

Leon Zurawicki

L'Union des Etudiants Polonais,
WARSAWA,
ZGSZSP - Wydział Nauki,
Rue Ordynańska 9,
Poland.

Marek Rasinski

Marek Rasinski

Polish Astronautical Society
(POLSKIETOW. ASTRONAUTYCINE),
Silesian Branch P.T.A.,
40-730 KATOWICE,
Ul. Panewnicka 29,
Poland.

Wladyslaw Geisler

Wladyslaw Geisler

Miljöförbundet (Sweden's National
Ecologist Alliance),
Box 2129,
S-75002 UPPSALA,
Sweden.

Sweden
Roland von Malmborg

Roland von Malmborg

Swedish Society for the Conservation
of Nature,
Kingsholms Strand 125,
112 34 STOCKHOLM,
Sweden.

Amt fur gesamtstadtische
kirchliche Aufgaben,
Postfach 20,
CH-3000 BERNE 23,
Switzerland.

E. Wildboiz

Switzerland

Eduard Wildboiz

Centre d'Etudes Industrielles,
4 Chemin de Conches,
1231 CONCHES-GENEVA,
Switzerland.

Mike Royston

V.K. Jolly; A. de Koning
Mike Royston

Tel: 022-471133
Cable: MANEDUCA
Telex: 27 452

Ecole Polytechnique Federale
de Lausanne,
Eidg, Technische Hochschule,
LAUSANNE,
Switzerland.

Forum W,
(Forum for Responsible Application
of Science
Ch-4113 FLUH,
Switzerland.

Konradin Kreuzer

Konradin Kreuzer

Foundation for Human Settlements
and Public Affairs,
Winterthurer Str. 52,
CH 8006 ZURICH,
Switzerland.

U.P. Schmidt

U.P. Schmidt

Groupe des Jeunes Suisse,
Ramine 25,
1005 LAUSANNE,
Switzerland.

Alexandre Cotty

Alexandre Cotty

Institut du Genie de l'Environnement,
Chemin Chandieu 3,
CH-1006 LAUSANNE,
Switzerland.

Prof. Y. Maystre

Yves Maystre

Tel: (021) 273511/12
Telex: 24 478

Institute Universitaire
d'Etudes Europeanes,
Villa Moynier,
122 rue de Lausanne,
1211 GENEVA 21,
Switzerland.

Mrs. M.M. Schmit

M.M. Schmit

Tel: 32 2803
Cable: UNIEUROPA GENEVA

International Council of
Voluntary Agencies,
17 Ave. de la Paix,
1202 GENEVA,
Switzerland.

Cyril Ritchie

Cyril Ritchie; Lucy Karuga
Tel: 022-3320 25

International Federation of
Medical Student Assoc.,
19 Ardulignon,
GENEVA,
Switzerland.

Lulop Tamas

Lulop Tamas

International Labour Organisation,
44 Ch. des Coudriers,
1209 GENEVA,
Switzerland.

H.Z. Evan

H.Z. Evan

International Schools Association,
Palais Wilson 20,
1211 GENEVA 14,
Switzerland.

Cyril Ritchie

Cyril Ritchie
Tel: (022) 32 08 29
Cable: INTERSCHOOLS

International Union for the
Conservation of Nature
and Natural Resources (IUCN),
1110 MORGES,
Switzerland.

Alfred Hoffman

Alfred Hoffman
Tel: (021) 714401
Cable: UNICORN

International Youth and Student
Movement for the UN (ISMUN).
5 Chemin des Iris,
1216 COINTRIN,
Geneva,
Switzerland.

Roger Manser

Roger Manser
Tel: (022) 331756

Keep Switzerland Beautiful/ Swiss
Assoc. for Water & Air Protection,
ASS/WGL Secretariat,
P.O. Box 105,
CH-8031 ZURICH,
Switzerland.

Wolfgang Moser

Wolfgang Moser -
Secretary General
Tel: (01) 4463 63
4456 78

League of Red Cross Societies,
P.O. Box 276,
1211 GENEVA 19,
Switzerland.

John David Armitage

John David Armitage
Tel: 34 55 80
Cable: LICROSS GENEVA

Lutheran World Federation,
P.O. Box 66,
1211 GENEVA 20,
Switzerland.

Edward Mwangosi

Edward Mwangosi - Secretary
for External
Relations
Tel: 022/333400
Cable: LUTHSERVE
Telex: 289 200 lws ch

World Association of Girl
Guides and Girl Scouts,
17 Chemin Francois Lehmann,
1218 Grand Saconnex,
GENEVA,
Switzerland.

Libo Barton

Libo Barton

World Confederation of the Organ-
isations of the Teaching
Profession (WCOTP),
5 Ave. du Moulin,
1110 MORGES,
Switzerland.

R. Smyke

Raymond J. Smyke -
Assistant Secretary
Tel: (021) 71 74 67
Cable: TEACHING 1110 MORGES

World Leisure and Recreation
Association,
18 Ave. de Bude,
GENEVA 1202,
Switzerland.

Norman Lourie

Norman Lourie;
Christina de Quitano-Cabauero

World Scout Bureau,
C.P. 78,
1211 GENEVA 4,
Switzerland.

John Jackson

John Jackson
Tel: 022 204233
Cable: WORLDSCOUT
Telex: 28139 wsb ch

World Peace Council,
24A rue Lamartine,
1205 GENEVA,
Switzerland.

K. Kielan

K. Kielan
Tel: 21 33 39

World Wildlife Fund,
1110 MORGES,
Switzerland.

F. Vollmar

F. Vollmar - Director
General
Cable: PANDA MORGES
Telex: 25999 panda ch

World Young Women's Christian
Association,
37 Quai Wilson,
1201 GENEVA,
Switzerland.

Brigitte Lacroix

Barbara Bigaut; Brigitte Lacroix
Tel: 022 323100
Cable: SOROMUNDI

Conservation Trust,
246 London Road, Earley,
READING,
Berks. RG6 1AJ,
U.K.

Peter Berry

United Kingdom
Peter Berry
Tel: 0734 663650

Institution of Environmental
Sciences,
14 Princes Gate, Hyde Park,
LONDON SW7 1PU,
U.K.

D. Hughes-Evans

D. Hughes-Evans

Institute of Biological
Husbandry Ltd.,
Martello House,
5 Station Road,
STOWMARKET,
Suffolk IP14 1EF,
U.K.

Dr. R. Hodges

R. D. Hodges - Director
Tel: (04492) 2845/2315

Environment Liaison Centre,
c/o I.I.E.D.,
10 Percy Street,
LONDON W1P 0DR,
U.K.

Bridget Hughes

Bridget Hughes - E.E. Project
Coordinator
Richard Sandbrook
Tel: 01 580 7656/7
Cable: EARTHSCAN LONDON

National Association for
Environment Education,
21 Rackclose Park,
Chard,
SOMERSET TA 20 IRE,
U.K.

Peter R. Yaxley

P.R. Yaxley -
Information Officer

Overseas Development Institute,
10-11 Percy Street,
LONDON W1P 0JB,
U.K.

Stephen Sandford

Stephen Sandford
Tel: 01 637 3622
Cable: PICODI LONDON W1

Town and Country Planning Assoc.
Education Unit,
17 Carlton House Terrace,
LONDON SW1,
U.K.

Tony Fyson

Tony Fyson
Tel: 01 930 8903

People's Technique of Yugoslavia,
Mouvement Science to the Youth,
P.O. B. 522 BEOGRAD,
Yugoslavia.

Vukanovic Radomir

Yugoslavia
Vukanovic Radomir

Yugoslav Council for Protection
and Promotion of the Human Env't.
Bulevar Lenina 6,
BEOGRAD,
Yugoslavia.

Ladjevac Biljana

Ladjevac Biljana

Bahamas National Trust,
P.O. Box N 4105,
NASSAU,
Bahamas.

R. Attrill

Caribbean - Bahamas
R. Attrill - Executive Director
Tel: (809) 32-28333

LATIN AMERICA AND THE CARIBBEAN REGION

Caribbean Conservation Assoc.,
Savannah Lodge,
The Garrison,
ST. MICHAEL,
Barbados.

John Connell

Barbados
John Connell
Tel: 65373

ISMUN Argentina,
Colombes 980 bis,
2000 ROSARIA,
Argentina.

Latin America - Argentina

F.U.N.B.E.C.,
C.P. 2089,
Cidade Universitaria,
SAO PAULO,
Brazil.

Antonio Texeira Jr.

Brazil
Antonio Texeira Jr.

Resistencia Ecologica,
Caixa Postal 12.193,
RIO DE JANEIRO ZC-07,
Brazil.

O. Buchsbaum

Otto Buchsbaum - President

Universidad Austral de Chile,
Facultad de Ing. Forestal,
Casilla 567,
VALDIVIA,
Chile.

J.V. Oltremari

Chile
Juan V. Oltremari

Clufit UNESCO,
Instituto Nal. de Educacion
Media,
Santiago Perez,
Parque el Tunal,
BOGOTA,
Colombia, S.A.

Gerardo Brun

Colombia
Gerardo Brun - Director

ASCONA (Costa Rican Association
for the Conservation of Nature),
Apartado 8-3870,
SAN JOSE,
Costa Rica, C. America

A. Chaverri

COSTA RICA

Adelaida Chaverri - Fiscal *
Tel: 226241

Amigos de la Naturaleza,
Apartado 162,
Guadalupe,
COSTA RICA, C. America

Manuel Cardenas

Manuel Cardenas - Fiscal
Cable: AMIGOS

Asociacion Defensa Contra
Contaminacion Ambiental,
Jiron Cusco 610,
Of. 203 LIMA 1,
Peru,
S. America

E. R. Riveros

Peru

Edmundo Rey Riveros - President
Tel: 277366

Michel Dufresne,
9175 Jeanne Mance,
MONTREAL H2N 1X8,
Province Quebec,
Canada.

Canada

Michel Dufresne

NORTH AMERICA REGION

Heritage Canada,
PO Box 1358, Station B,
OTTAWA,
Ontario K1P 5R4,
Canada.

Marc C. Denhez

Marc C. Denhez
Tel: 613 237 1867

International Development
Research Centre,
Box 8500,
OTTAWA,
Ontario K1G 3H9,
Canada .

Bob Stahley

Bob Stanley - Editor
Tel: (613) 996 2321
Cable: RECENTRE OTTAWA
Telex: 053-3753

Ontario Forestry Association,
150 Consumers Road,
Willowdale,
ONTARIO M2J 1P9,
Canada.

J. Coats

J.D. Coats - Executive
Vice-President
Tel: 416 493 4565

Agricultural Alternatives Dev-
elopment Program,
Dept. of Environmental Planning
and Management,
University of California at Davis,
DAVIS, California 95616,
U.S.A.

Dennis Josephs

U.S.A.

Dennis Josephs *

Alliance for Environmental Education
1619 Massachusetts Avenue NW,
WASHINGTON DC 20036,
U.S.A.

James L. Aldrich

James L. Aldrich
Tel: 265 0630

Emity Foundation,
2760 Riverview,
EUGENE,
Oregon 97403,
U.S.A.

P.M. Staley

Philip Mark Staley -
Director

Centre for Environmental
Intern Programme,
P.O. Box 119,
LINCOLN,
Mass. 01773,
U.S.A.

John R. Cook, Jr.

John R. Cook, Jr.
Tel: 617 259 9500

Clean Air Council,
915 Citrus Avenue,
HOLLYWOOD,
California.
U.S.A.

Sandy Elster

Sandy Elster

Massachusetts Audubon Society,
South Great Road,
LINCOLN,
Mass. 01773,
U.S.A.

John R. Cook

John R. Cook
Tel: 617 259 9500

North Country Anvil,
Box 37,
Millville,
Minnesota 55957,
U.S.A.

Jack Miller

Jack Miller - Editor
Tel: 507 798 2366

Sierra Club International
Office of International
Environmental Affairs,
800 Second Avenue,
NEW YORK, NY 10017,
U.S.A.

Dumon Stansby

Dumon Stansby
Tel: 212 867 0080

TRANET (Transnational Network
for Alternative Technologies),
P.O. Box 567,
RANGLEY,
Me. 04970,
U.S.A.

W.N. Ellis

W.N. Ellis - Coordinator

Society for Protection of Nature,
4 Hashfela Street,
TEL AVIV,
Israel.

Azaria Alon

Israel
Azaria Alon
Tel: 35063
Cable: PRONATURE TEL AVIV

WESTERN ASIA REGION

Association Libanaise pour
l'Avancement des Sciences,
B.P. 7142,
BEYROUTH,
Lebanon.

Issam Mayas

Lebanon
Issam Mayas

Mimarlar Odasi (Chamber of
Architects),
Konur Sokak 4,
Kizilay,
ANKARA,
Turkey.

Süheyl Kircak

Turkey
Süheyl Kircak *
Tel: 255011/263988

UMMR (Union of the Municipalities
of Marmara Region),
Prof. K. Ismail Gurkan Cad. No.12,
Ortaklar Han Kat,
4 Cagaloglu,
ISTANBUL,
Turkey.

S. Yildirim

Selahattin Yildirim -
Secretary General



E E SWITCHBOARD

Centro de Enlace sobre el Medio Ambiente
P.O. Box 72461
Nairobi, Kenya
Teléfono: 24770

Centre de Liaison pour l'Environnement
P.O. Box 72461
Nairobi, Kenya
Téléphone: 24770

Environment Liaison Centre,
P.O. Box 72461,
Nairobi, Kenya
Telephone: Nairobi 24770

No. 2 March/April 1978

CURRICULUM DEVELOPMENT IN AFRICA

Two seminars in Africa have now taken place to advance the development of multi-media materials on environmental science components for use by first cycle teachers in Sub-Saharan Africa. The programme is being carried out by the Science Education Programme for Africa (SEPA) and is funded jointly by UNEP and UNESCO.

The objectives of this pilot project are:

- * to design and develop primary level instructional materials which focus on the environment by utilizing scientifically based principles and social action;
- * to encourage the incorporation of these materials in national curriculum development activities of both English and French-speaking countries.

The project's expected results are:

- * the development of both English and French modules of instructional materials, including multi-media elements;
- * the development of resource guides for teachers related to the use of the modules; and
- * the evaluation of materials produced, with norms for their educational utilization and conditions for their regional transferability.

The instructional units are designed to stress the following:

- (a) Gathering of information by learners through personal observation, documentation and by direct inquiry.
- (b) Practical activities
 - i) within the schools (e.g. measuring, mapping model building, simulation exercises, etc.);
 - ii) in the community by observation.

(c) Linking with adult education schemes in the community to prepare for social action.

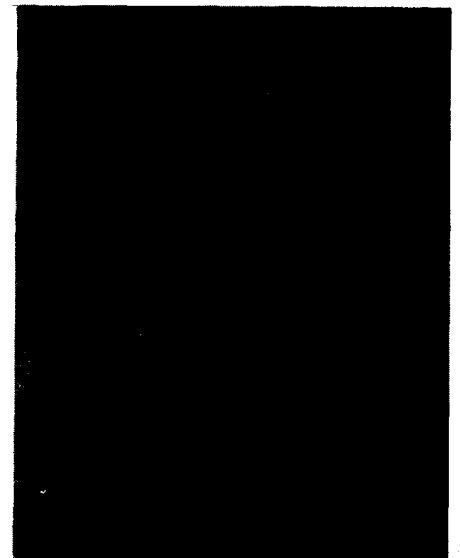
(d) Learners take part in Social action in the community as part of the activities.

Several target groups will be targeted in the material being developed at present. Teachers in the primary cycle of teaching in their inservice and pre-service education are one of the targets. Students in the primary cycle and adult education students will also be two other targets. Later, multi-media packages will be produced for staff of curriculum development centres.

To divide the area of environmental science into more manageable sections, six topics were chosen. These topics are water, soil, food and its production, habitat, health, and appropriate technology. As an example of the way each topic is covered, the Water Unit, has the following components:

1. Teacher's Guide consisting of a method of teaching the topic according to scientific principles and leading to social change in the community (Teaching Framework).
2. Monographs will give additional information to teachers in aspects and problems associated with water, with pictures and drawings. It is planned to produce three such monographs on the following topics:
 - a) water and life
 - b) water and health (water-borne diseases)
 - c) water technology
3. Case-studies will show how the method has been applied in two cases pertaining to two different African climatic zones: the sahelian and the tropical zones.
4. Readers for pupils' use to be published by SEPA. (Water Book, Mosquitoes)
5. Posters chiefly on water-borne diseases. They will consist of diagrams and photo-stories.

6. Slides and tapes illustrating the use of the method for teacher training.



By late 1978 there should be one package on each of 2 topics ready for use by teachers. Before this stage a certain amount of trial testing of the material must be done. Some of this work has been done already. Material on the water and food units has been prepared and some of it pretested.

For further information contact:-

Francis K'Opiyo, Kenya Institute of Education, P.O. Box 30231, Nairobi, Kenya.

Hubert Dyasi, Science Education Programme for Africa, P.O. Box 9169, Airport, Accra, Ghana.

CONTENTS

	Page
Curriculum Development in Africa	1
Fur and Feathers	2
Environmental Education for the Householder	2
Choosing a Funding Agency	2
Sun Day 1978	4
A Bird's Eye View from Malta	4
Nursery Rhymes for the Times	5
Science for Villages	5
Changing a Society's Approach to Energy	6
Country Notes	8
Meetings—March to June 1978	8
NGO Environmental Education Network	11
Costa Rica: Ambisioso Proyecto de Educacion Ambiental	13
Informing Energy Consumers	13
"Alternatives"—Developmental Education from Scandinavia	14

**FUR AND FEATHERS - PLANNING
FOR WILDLIFE CONSERVATION**

Having just celebrated its first birthday, *Fur and Feathers*, a wildlife conservation organization in India, has some impressive projects on the drawing-board and some useful experience in putting projects into practice.

One of the current projects of Fur and Feathers involves a survey of the status of wildlife around Naini Tal in India, paying particular attention to Ghoral, Serow, Blackbear, Chir and Kaleej pheasants. In a previous project, the organisation had tried to study the behaviour of Greylag geese but were thwarted by lack of equipment - binoculars, camera, tape-recorder. Having learned from this experience, and realizing they cannot hope to carry out an in-depth census given the organisation's present resources, the current survey will be adequate to indicate where each variety of wildlife can be found, and the varieties of vegetation and their locations. Fur and Feathers would like to pool their resources with other NGOs, such as the Bombay Natural History Society and the World Wildlife Fund, to do the census in more detail at some later time.

Recognizing that in India, "wildlife is still a luxury which can be afforded only by a handful of people" (Anil Prasad of Fur and Feathers) two other projects are designed to give the public and school children greater access to the wildlife around Naini Tal. A new road being completed between New Delhi and Naini Tal will go through an area where there are interesting varieties of deer and birds at Kaladhungli along the road. A park and restaurant is planned there in the home of a local naturalist, Jim Corbetts. In the park would be four types of deer and varieties of pea fowl as well as other birds. Books on vegetation and wildlife of the local area are also being translated into Hindi so that they can be used in the schools.

Contact address: Anil Prasad, Fur and Feathers, Charlton Lodge, Naini Tal (UP), India.

**ENVIRONMENTAL EDUCATION
FOR THE HOUSEHOLDER**

Educational programs designed to teach householders how to make more efficient use of energy in their homes are to be carried out in the USA by the League of Women Voters and the Department of Energy.

The League of Women Voters Education Fund has received \$63,619 from the US Department of Energy to fund pilot community information projects in four localities: Tucson, Arizona; Wake County, North Carolina; Northfield, Minnesota; and West Hartford, Connecticut. Programs proposed by the local chapters in those four areas were chosen by the League of Women Voters from a total of 18 submitted by chapters from all over the country.

Each of the four chapters will sponsor activities offering residents of the community simple, practical information on energy-conserving techniques to use in their homes. The projects will be tailored to respond to local needs and to the climatic, geographic and demographic conditions of each locality.

Source: Department of Energy, Weekly Announcements. Vol.2, No. 3. Week ending 20 January 1978.

Contact address: League of Women Voters, 1730 M. St.NW, Washington DC, 20036, U.S.A.

CHOOSING A FUNDING AGENCY

As important as writing a good project proposal, is the choice of the appropriate funding agency. In order to have this choice, your organisation must have the information on the sources available.

To assist you, we wish to provide you here with some basic information about funding sources available to environment and development NGOs in the developing world. This report is by no means complete. It is meant to give your organisation an indication of what is available.

With this 'EE Switchboard' you will find enclosed a copy of an article giving advice on writing a funding proposal.

We recommend the periodical "Foundation News" for information on sources of US funds. It comes out on a bi-monthly basis and we have included information here from July - December 1977 issues. It is very easy to extract information from and has an index which refers the reader to all projects funded outside the USA under the heading 'Foreign Recipients'.

Information on government sources for funding developing country projects would be much easier obtained at the source of the funding. When time permits, we will obtain information from Embassies and High

Commissions in Nairobi. We would be most grateful if developed country NGOs could send information to us for the developing country projects which their countries have funded recently.

For example, if a Dutch NGO could get us the information on projects funded by their government in developing countries from 1976-1977.

There also is a lack of information available on projects funded by international NGOs. The information provided here is to indicate how you can start finding appropriate funding agencies. If you have a project similar to any funded in the list below, it might help you narrow the field and decide which funding agencies to approach. The reference numbers refer to the numbers in the list of funding agencies and their addresses, given at the end of this article.

Recent NGO Projects In Developing Countries Which Were Funded:

Type of Project	Ref. No. of Funding Agency
Agriculture and Animal Husbandry:	
- agriculture & food production research	5
- agriculture development	7
- agriculture documentation centre	5
- agriculture seminars and training programmes	5
- animal production and health	4
- plant production and protection	4
Atomic Energy	4
Culture:	
- arts & culture survey	5
- construction of community centre	9
- cultural exchange seminars & training prog'ms	5
- culture	8
Demography research	5
Desertification research	5
Education:	
- adult education	5
- education	7,8,10
- educational research, seminars & training programmes	5
- secondary education scholarships	10
Employment of technician	1
Environment conservation and research:	
- air pollution research	3
- ecology education	2

Choosing a Funding Agency cont.

- ecology research	5	Rural:		9. Public Welfare Foundation. Address: President, Public Welfare Foundation, 2600 Virginia Avenue NW, Washington DC 20037, U.S.A.
- environment protection research	3	- rural development	5	
- nature conservation	13	- rural institutions & services	4	
- pesticides research	3	- rural/urban migration	5	
- radiation research	3	Socio-economic:		10. Rockefeller Brothers Fund*
- solid waste research	3	- economic analyses & research	4,5	
- water pollution control and research	3	- employment research	5	11. Rockefeller Foundation. Address: President Rockefeller Foundation, 111 West 50th Street, New York, NY 10020, U.S.A.
Fisheries	4	- ideology & social process research	3	
Forestry & forestry products	4	- improvement of existing centres of research & social services	5	12. Scholl (Dr.) Foundation.*
Health:		- problems between global corporations & developing nations	2	13. World Wildlife Fund. Address: Conservation Officer, World Wildlife Fund, 1110 Morges, Switzerland.
- development of dental services	6	- social justice education	2	
- development of hospital clinic	1	- social science documentation	5	* Address not available in Nairobi. We have written for it and hope to publish it in the next EE Switchboard.
- development of regional & urban health care	6	- sociology conference	5	
- education in medicine	6	- village socio-economic research	5	
- health seminars & training programmes	5	Statistics	4	
- medical mobile unit for medical care & educat'n	12	Status of women research	5	<u>Additional References For Project Funding:</u>
- medicine	8	Water:		
- nutrition	4,5	- water supply	3	
- research on tropical diseases	1	- irrigation	5	
Information services:		World Peace education	2	1. <u>Development Assistance Programs of U.S.A Non-Profit Organisations.</u> Crosby, B. and Smyth, S.J. (editors).
- library materials	5			Technical Assistance Information Clearing House. American Council of Voluntary Agencies for Foreign Service, Inc., 200 Park Avenue South, New York, NY 10003, U.S.A.
- public information	4	<u>Funding Agencies and their Addresses</u>		- These are a series of periodically revised country reports which expand and update the TAICH directories. See No. 8 in this list for the directory.
- training in library science	5	1. Clark (Edna McConnell) Foundation. *		
Politics, government and law:		2. Compton Foundation.*		
- government decentralisation research	5	3. Environment Protection Agency, Office of Research and Development. Address: Chief, Project and Processing Staff, Office of Research and Development, Environment Protection Agency, Washington DC 20460, U.S.A.		2. <u>Directory of Activities of International Voluntary Agencies in Rural Development in Africa.</u> United Nations, New York, NY, U.S.A.
- local government conference	5	4. Food and Agricultural Organisation of the United Nations - Group Training Activities. Address: Food & Agricultural Organisation, via delle Terme de Caracalla, 00100 Rome, Italy.		General information on international voluntary agencies - addresses, affiliations, objectives, activities, countries of operation, rural development activities by nation.
- politics research	5	5. Ford Foundation. Address: President, Ford Foundation, 320 East 43rd Street, New York, NY 10017, U.S.A.		
- wages & labour law research	5	6. Kellogg (W.K.) Foundation. Address: W.K. Kellogg Foundation, 400 North Avenue, Battle Creek, Michigan 49016, U.S.A.		3. <u>Directory of Aid Agencies.</u> Pacific Bureau for Economic Cooperation, P.O. Box 856, Suva, Fiji.
Population:		7. Lily Endowment.*		Descriptions, activities and addresses of grant-making official bilateral agencies, international governmental organisations, research institutes, volunteer organisations, foundations, and church bodies.
- contraceptive development	5	8. Polaroid Foundation.*		
- family planning	5			
- human reproduction conference	5			
- population research, including reproductive biology	2,5,11			
- population seminars & training programmes	5			
Resources:				
- human resource development	7			
- land and water development	4			
- land settlement	5			
- research & training in natural resources, regional planning and development	5			
- resource	10			

4. Directory of Grant-Making Trusts

Booth, J.D.L. (editor)

Charities Aid Fund of the National Council of Social Service, 48 Pembury Road, Tonbridge, Kent TN9 2JD, U.K.

Classification of charitable purposes according to subject; alphabetical register of grant-making charitable trusts, their correspondents, trustees, objectives, beneficial areas, and subject areas funded.

5. Foundation News.

The Journal of Philanthropy, Kennedy, P.W. (editor)

Council on Foundations Inc., 888 Seventh Avenue, New York, NY 10019, U.S.A.

Description of projects recently funded, amount of grant (greater amount than US \$5,000 though records of smaller grants available directly from the CoF), and funding agency; environmental and related articles.

6. The Grants Register. 1975-1977.

St. James Press, 19 Montague Mews North, London, W1H 1AJ, U.K.

Sections on natural resources/ environment protection and education/teaching.

NOTE: refer to Nationals of Developing Countries.

7. The International Foundation Directory.

Hudson, H.V. (consultant editor)

Europa Publications Ltd., 18 Bedford Square, London WC1B 3JN, U.K.

Information on foundations throughout the world by country including their scope (international or national), activities, finances, and trustees.

8. U.S. Non-Profit Organisations in Development Assistance Abroad.

Crosby, B., and Smyth, S.J. (editors)
Technical Assistance Information Clearing House, American Council of Voluntary Agencies for Foreign Service Inc., 200 Park Avenue, New York, NY 10003, U.S.A.

Organisation profiles, including address, executive staff, objectives, programmes of assistance, resources and publications; programme information by country.

NOTE: very helpful.

9. Yearbook of World Problems and Human Problems.

Mankind 2000 and Union of International Associations, 1 rue aux Laines, 1000 1000 Brussels, Belgium.

International agencies and associations, their addresses and correspondents; multinational corporations and enterprises, their addresses, subsidiaries, and commodities.

SUN DAY 1978

'Sun Day' on 3 May 1978 will be used to focus many NGO activities in North America. It will be an attempt to show the positive alternatives connected to the use of solar energy. Dennis Hayes, an environmental activist who is a leading promoter of 'Sun Day', has said "While no single solar technology can meet mankind's total demand for energy, a combination of solar sources can. It is technically feasible, economically sound, and environmentally attractive. Unfortunately, the general public is unaware of the potential ... A major educational program is necessary to promote the transition."

One coalition of NGOs in the USA supporting the development and use of solar energy has worked with congressional staff preparing solar energy legislation proposals. Subjects of interest include:

- . agricultural uses of solar and wind energy;
- . federal assistance for small businesses which manufacture, install, and buy solar equipment;
- . export incentives to permit manufacture of solar devices for use in developing countries.

Friends of the Earth, San Francisco, are going to publish a 'Solar Handbook' timed to appear in conjunction with 'Sun Day'. It is divided into 5 sections which are:

- . energy policy in social context;
- . the resource;
- . the technologies;
- . issues of policy;
- . sources.

The section on Energy Policy in Social Context includes a subsection on Third World Options by Dennis Hayes. In total there are contributions from 15 well-known environmentalists.

Plans in the USA for Sun Day already include local rallies, fairs and other educational events to increase public awareness and understanding of solar energy.

'Sun Day' is an international day of celebrations and we would be interested to hear other plans of NGOs around this day. A brochure giving information on the celebration of this day is available from 'Sun Day International' (at the address given below).

Sources: Future Studies Centre Newsletter, 23 January 1978. Future Studies Centre, 15 Kelso Road, Leeds LS2 9PR, U.K.

NRDC World Environment Alert. Vol. 1, No. 18, November/December 1977. International Project, Natural Resources Defense Council Inc., 917 15th Street NW, Washington DC 20005, U.S.A.

Nuclear Report. Vol. 2, No.1. 11 January, 1978. Saskatoon Environmental Society, PO Box 1372, Saskatoon, Saskatchewan S7K 3N9, Canada. (Telephone: 306 665 6655)

Sierra Club, National News Report. Vol. 10, No. 2, 20 January 1978. Sierra Club, 530 Bush Street, San Francisco, California 94108, U.S.A. (Telephone: (415) 981-8634)

Other Contacts:

David Chatfield, International Liaison, Friends of the Earth, 124 Spear Street, San Francisco, California 94105, USA.

Sun Day International, Suite 1100, 1028 Connecticut Ave., NW, Washington DC 20036, USA.

A BIRD'S EYE VIEW FROM MALTA

The Malta Ornithological Society (MOS) has always recognised that the best weapon to fight prejudice is education. For this reason, the MOS has, during the past two years, intensified its information campaigns, often with the help from foreign societies.

* Three new car-stickers were launched in 1976-77. The first one, depicting a Robin in full colour, with a Maltese slogan which translates 'I came, I made you happy, set me free', was made available for the MOS through the assistance of the Comité de Coordination pour la Protection des Oiseaux (CCPO) of Belgium. This sticker is very much in demand and is being displayed on many cars and school-children's briefcases. Another sticker depicting a Honey Buzzard in flight was launched in March 1977. The Maltese slogan on it translates 'The Honey Buzzard is beautiful alive'. This sticker is intended to counteract the annual slaughter of Honey Buzzards and other birds of prey which takes place in the Maltese Islands. A small sticker published by the Young Members' Section of the MOS also in March, depicts a bird in flight and carries the words 'Watch it with the MOS'.

* For the occasion of the 'Bird Week 1977', the MOS also published a poster appealing for the protection of all the breeding birds, and it carries a list of the regular Maltese breeders. The slogan on it translates 'I can breed in Malta, Why don't you let me, This poster was distributed in schools, police stations and youth clubs.

* With the assistance of the Sveriges Omitologiska For-ening, the MOS and ICBP-Malta printed a number of copy-books for school-children, with a picture of the Robin in full colour on the front cover. Although protected by Maltese Law, the Robin is trapped in large numbers in Malta in October, especially by children and youngsters. A great many die in captivity after only a few days. These copy books are intended to increase the appreciation towards this beneficial bird, and a short note to this effect is printed on the back-cover of the copybook. Through the assistance of the Director of Education, these copybooks will be made available to school-children, directly from schools.

* Another educational aid intended to help teachers and other educators on matters concerning the natural environment is a manual which has just been published. It explains simple ecological reasons which are forcing everyone to treat the concept of conservation seriously. It also supplies much useful information and points out the pitfalls to be avoided.

The manual is a collective effort by Joe Sultana, Guido Lanfranco and Edwin Lanfranco, whose original scripts were schematised by Alfred E. Baldacchino and John Assopardi. The text is complemented with pleasant line drawings by Rodney Ingram and Guido Lanfranco. In the foreword, the President of the Republic Dr. Anton Buttigieg, recommends this manual on nature conservation to all educators while the editor, Dominic Cutajar, states that 'The purpose in compiling this manual on the theory of nature conservation is to inform educators in general on the background of ideas which are compelling present generations to discard most of the old traditional attitudes towards nature'.

Finance to publish the manual was provided by the Nederlandse Vereniging tot Bescherming van Vogels through I.C.B.P., Malta.

* A novelty which appeals very much to the younger members of the MOS is a MOS T-shirt transfer which was also launched during Bird Week 1977. The attractive blue transfers may be printed on to T-shirts by pressing with a hot iron.

Source: Malta Ornithological Society, P.O. Box 498, Valletta, Malta.

NURSERY RHYMES FOR THE TIMES

*"Humpty Dumpty sat on the wall,
Humpty Dumpty had a great fall,
The reason why he lost his place,
Was just a lack of living space"*

The above is one of the ecological nursery rhymes in a book called "Nursery Rhymes for the Times" written and illustrated by Jeff Sparks. Anyone familiar with the English language has probably at some time enjoyed the rhythm and rhyme in English language nursery rhymes. They have probably also despaired over their incomprehensible words and cultural appropriateness - nursery rhymes have not kept up with history and distance. Little Miss Muffet who was eating her curds and whey involved rather long explanations for a 6-year old African daughter, and 'Ten little Nigger Boys' is something to skip altogether. But here is a book which is designed for North American children which teaches them appropriate environmental concepts and gives them much enjoyment at the same time. The illustrations are simple black and white drawings with a touch of humour.

Almost all the rhymes concern pollution like:

*"Yankee Doodle went to town,
Riding on a pony;
Better than a limousine
Using leaded gasoline.*

However, there are some on other topics and to reach an adult audience such as:

*"There was an old woman
Who lived in a shoe
She had so many children
Because she didn't know what
to do.*

At the end, the author, Jeff Sparks, invites readers to add their own verses and pictures. To start the ball rolling, this is our try:

*"Jack and Jill went up the hill
to fetch a pot of water;
The trees were gone, the river
dry,
So they went crying home again."*



The book is available through the publisher, Malcolm and Hayes, 603 Third Avenue, New York City, NY, USA.

SCIENCE FOR VILLAGES

- an Indian periodical.

The fourth issue of 'Science for Villages', dated December 1977, has just reached us. It is an interesting 8-paged newsletter concerned with development and published by the Centre of Science for Villages. Key articles in this issue are:

- * 'A Challenge to Indian Scientists' by Devendra Kumar. This points out that in wide areas of Asia the average income has increased, yet the percentage of families below the subsistence level has risen from 49% in 1960 to 63.6% in 1970. To alleviate this problem in India, the author lists four approaches scientists should devote themselves to over the next decade which would create rural employment and relative rural self-sufficiency.
- * 'The Frontliners' - A list of organisations in India providing alternative approaches to health care.
- * 'Simple is Blissful' - An interview with Dr. Atma Ram, Chairman of India's National Committee on Science and Technology.
- * 'Rural Development in Education' - This points out that advances and reforms in education in developing countries often have no relevance to the needs of education for development (and we would add, and often not for the environment). Suggestions are made for more appropriate forms of education.
- * 'Ashmoh Cement' - a new kind of cement made from rice husks and lime with various properties superior to ordinary Portland cement.

Enquiries to: The Editor, Science for Villages, 739 JNU, New Delhi 110057, India.

CHANGING A SOCIETY'S APPROACH TO ENERGY

A paperback book, which must be one of the most recent products of 'Friends of the Earth' New Zealand, has just arrived in Nairobi. Entitled "Friends of the Earth's Energy Policy for New Zealand" by Denis Hocking, it provides 91 pages of most interesting reading and practical suggestions directed to the Government, Parliamentarians and the general public.

Like other developed countries, for the previous 30 years New Zealand has made maximum use of cheap energy which was available before the 1973/74 oil price rises. To quote Denis Hocking, 'consumption of total energy doubled about every 20 years, and ... consumption of oil and electricity doubled every 10 (years)'. To continue the same trend, with oil prices as they are at present, would cause a massive balance of payments deficit. The immediate need for a solution to this situation is not being met. New Zealanders, both the government and the general public, are discussing various energy options through the mass media, which ranges from use of nuclear power to generation of energy by tides and waves. But Friends of the Earth have identified basic gaps in all this controversy - it has yet to be decided what energy forms and quantities are needed for the future of the society; and what energy sources are environmentally, economically and socially suited to supplying the energy, both on a short- and a long-term basis. The book, published in the form of a parliamentary report (but far more readable), is a useful and detailed attempt to lead people to make decisions on these needs.

Friends of the Earth's policy and the assumptions behind it are quoted below from the Foreword. Also shown is a list of contents.

Friends of the Earth believe that New Zealand has basically two options. She could try to continue the growth trends of the quarter century prior to 1973, with total energy consumption growing at 4 per cent or more each year, and with electricity consumption growing at 6-8 per cent. We foresee such a path as being plagued with uncertainties, problems and schisms that might threaten to tear society apart. In an era when energy costs are likely to continue rising in real terms, it seems ludicrous to try to continue growth habits developed in an era of falling energy prices.

Massive investment would be required in the energy supply industry, and attempts to import energy, be it oil, coal or nuclear power always raises the problems of security of supply and balance of payments. Attempts to develop indigenous resources at a rapid rate would cause social and economic upheaval and widespread environmental degradation. Continuation of present trends in electricity growth would lead to a highly centralised, vulnerable monolithic energy supply structure; an extravagance of wasted capital and precious primary energy, forever chasing illusory economies of scale. Nuclear power would have to come with its special problems: the connection with atomic weapons the unresolved safety problems and the need for safe storage of radioactive waste essentially forever. People would service this technological monster, rather than the technology serving people.

The alternative is to recognise the fundamental change in the economic/energy relationships of recent years, and to adapt our society to changing circumstances; to use our ingenuity and inventiveness to mould society to available resources rather than attempt the reverse. This is the policy advocated by Friends of the Earth. It is not an unduly radical policy. We foresee only one major change in our way of life, a pronounced de-emphasis of the private car, and some other alterations to transport in general. Otherwise the FOE policy does not entail undoing what has been done, but rather changing directions of development when changing circumstances so dictate, which can help us to evade the next, and potentially much more serious, round of the energy crisis.

Several assumptions pervade our philosophy:

I. We see no energy source that can wholly substitute for our present use of oil in transport. Transport fuel accounts for more than 40 per cent of our energy consumption and is entirely oil based. Although a number of future options may be available to supply limited quantities of transport fuel, a quite drastic curtailment of the private car seems inevitable. This need not entail a drastic loss of mobility provided that other more efficient transport modes are developed. There is not yet any prospect of a practical electric car, and until there is, electricity and nuclear power provide no substitute for oil, contrary to widespread belief.

II. We believe that energy supply should be matched to the end-use of the energy. For example, in homes we want our energy mainly as heat, to warm us in cold weather, heat our

water, cook our food. We need electricity to light our lamps, run our television sets, and various other tasks in the home. To use electricity, a high grade energy form, to heat a house has been likened to cutting butter with a chain saw. Yet, in New Zealand, at least half of all electricity is used to provide heat. Other sources such as natural gas, solar heat, wind power, coal and wood could do the same job much more efficiently.

III. Another overriding principle is drawn from economics and common sense: for everyday living, one ought to rely on one's income. Capital, or savings, ought to be put aside for special occasions, holidays and disasters. Our energy options can be divided into two such categories of capital and income. Our capital, our money in the bank, are the fuels that now exist in the earth's crust in strictly limited supply (and the bank pays no interest). Oil, coal, natural gas, uranium, tar sands, oil shales, once used are gone forever.

On the other hand, our energy income is provided free every day by the sun. It appears in many forms, as solar heat, wind, hydro-power, waves, biological fuels. There are many ways of putting this income to useful purpose.

IV. A fourth guiding principle is drawn from the laws of nature: In diversity is strength. It is the same principle that has led big companies to diversify - to invest money in a wide range of enterprises. In nature it means that most ecosystems have vast numbers of species of animals and plants, so that if one species is lost another fills its place. Diverse systems are relatively stable and less vulnerable to abrupt changes than simple monolithic structures.

The same general theory hold true for energy. A simplified system is vulnerable. Thus, if a national electricity grid provides a major part of a country's energy supply, then failure of the grid - due to technical failure, strikes, shortage of rain, sabotage or just bad luck - will seriously inconvenience and perhaps harm the whole country. Already New Zealand is heavily dependant on the national grid, and present plans are to increase the level of dependence. Friends of the Earth favour a more diverse energy supply, for two reasons. Firstly, for security of supply, so that if electricity supply fails, gas, solar heat, wind, etc. are still available. Secondly, by the very nature of the country different local energy resources; thus Wellington has wind, Blenheim has sun, Tokoroa has wood waste, Rotorua geothermal heat and the West Coast has small hydro-electricity potential. A diverse energy supply could utilise such regional variation.

We do not claim to be able to predict the detailed pattern of energy supply and consumption in New Zealand's future. Our suggestions are not precise predictions, but rather they constitute a philosophy and an attitude that we consider sound. At present there is insufficient evidence to know exactly what contribution different energy sources can make and at what cost. Our strategy outlines a number of areas where we believe this information is needed.

CONTENTS

Forward: A Turning Point in Energy Policy
Historical Aspects of Energy Use in New Zealand
The End Uses of Energy
Liquid Fuels and the Role of Transport
 The need for Transport
 Vehicle Efficiency
 Future Energy Sources
 Summary and Recommendations
The Role of Electricity in the Energy Mix
 The Supply Industry
 Forecasts and Growth
 Strategic Implications
 Total Energy Systems
 Geothermal Electricity
 Small Hydro Schemes
 Wind Generators
 Other Sources of Electricity
 Summary and Recommendations
The Supply of Heat
 Conservation and Insulation
 Solar Heat
 Heat Pumps
 Wind Power and Heat

Reticulation and Natural Gas
Fermentation Gas and Synthetic Natural Gas
Solid Fuels
District Heating
Geothermal Heat
High Grade Heat
Recommendations

Maui Gas
Energy and the Economy
References

The book is a most useful educational tool for anyone interested in bringing about a change in current attitudes towards energy supply and use, whether in New Zealand or elsewhere. The examples given are specific to New Zealand but the arguments used could be applied to other countries relying on oil as their main source of fuel for energy, especially where other forms of energy supply are available, such as gas, solar heat and wind. It could be particularly useful to other NGOs considering public education campaigns on energy and publication of information material. In this case, it could serve as an example of the kind of material which might usefully be produced where there is widespread literacy among the general public.

Source: Denis Hocking, Friends of the Earth's Energy Policy for New Zealand, 1977. Friends of the Earth, Box 39-065, Auckland West, New Zealand. Price: NZ\$2.50.

For subscribers to the ELC:

ENVIRONMENT LIAISON CENTRE

Notice is hereby given that an Extraordinary General Meeting of the Centre will be held at the Centre's office, Armstrong House, Nairobi, on Friday the 5th of May, 1978 at 4.30 p.m. to conduct the following business:-

- To consider and if thought fit to pass the following resolution as a SPECIAL RESOLUTION:-
- "That the Articles of Association be altered by:
- (a) deleting article 36 and substituting therefor the following:
36. The number of the Directors shall not be less than seven nor more than fourteen, and they shall be appointed by the Company in General Meeting from amongst its members. The First Directors shall be appointed by the subscribers to the Memorandum of Association.
- (b) deleting article 53 and substituting therefor the following:
53. The Directors shall elect amongst their own body a Chairman and a Vice-Chairman for such period (subject always to the provisions of these Articles) as they think fit.
- (c) by deleting the words "and Chairman" in the 3rd line of Article 54.
- To resolve that the financial year end of the Centre be changed from 31st March to 31st December.
- To transact any other business of which due notice has been received.

BY ORDER OF THE BOARD
AFRICA REGISTRARS LIMITED
SECRETARIES

Date: 4th April, 1978
P.O. Box 44286, NAIROBI.

N.B. In accordance with Section 136 (2) of the Companies Act (Cap.486) every member entitled to attend and vote at the above meeting is entitled to appoint a proxy, to attend and vote on his behalf. A proxy need not be a member.

ENVIRONMENT LIAISON CENTRE

Notice is hereby given that the Second Annual General Meeting of the Company will be held at the Kenyatta Conference Centre, Nairobi, on Monday the 8th of May 1978 at 4.30 p.m.

A G E N D A:

1. Apologies, Proxies, Introductions
2. Admissions of new members
3. Chairman's Report
4. Manager's Report
5. Presentation of Accounts and Balance Sheet and their adoption.
6. Election of Directors
(elections will be held for the two positions which retire this year and for the additional positions which will be created if Resolution 1 (a) is adopted at the Extraordinary General Meeting).
7. Transaction of any other business for which due notice has been given.

BY ORDER OF THE BOARD
AFRICA REGISTRARS LIMITED
SECRETARIES

Date: 4th April, 1978
P.O. Box 72461, NAIROBI.

N.B. In accordance with Section 136 (2) of the Companies Act (Cap. 486) every member entitled to attend and vote at the above meeting is entitled to appoint a proxy, to attend and vote on his behalf. A proxy need not be a member.

COUNTRY NOTES

Tanzania - A new Environmental Pollution Section has been established in the Tropical Pesticides Research Institute of the President's Office, Office for Regional Cooperation. The Director is Mr. J.L. Ak'habuhaya. The Section is concerned with the monitoring of the environment including obtaining basic data on the degree of pollution in various eco-systems, food-stuffs and air, suggesting means of minimising the pollution and advising on ways of doing this. The Institute has been mainly concerned with pesticides but they are now broadening their activities to cover many other pollutants.

Poland - The *Polish Red Cross* has, as one of its leading goals, the protection of the natural environment. For several years they have had educational programs among schools around the theme 'Protection of the Natural Environment - aim and duty of everyone of us'. The current theme is 'The Polish Red Cross, partner in bringing tidiness and order in towns and counties'. Through groups of school children, many activities have been carried out which range as follows:

- * keeping schools clean
- * cleaning places of work
- * looking after the surroundings and buildings of housing estates
- * turning waste ground and garbage dumps into parks and gardens.

Other activities of the Red Cross have concentrated on educating the general public about the conservation of water and the need for clean drinking water, prevention of accidents at home, anti-smoking campaigns, noise pollution in working establishments and public places.

India - The Bombay Civic Trust held a two-day conference recently on 'People's Participation and Urban Development'. A wide range of people attended from different professions such as lawyers, journalists, doctors, social workers, politicians and bureaucrats. As a result of the Conference the mayor of Bombay, Mr. Murli Deora, agreed to set up a six-member public committee to advise and guide the finalisation of the Bombay Development Plan. This committee will be selected by the Bombay Civic Trust.

Taiwan - In January, a poster contest was held by the Provincial Government of Taiwan and the Environmental Research Centre of Tunghai University, almost 2,000 school children took part. The ten best posters were sent to the Environment Liaison Centre and will be used in an exhibition to be held in May at the Governing Council of UNEP, Nairobi, Kenya.

MEETINGS - MARCH TO JUNE 1978

This space is to alert you to meetings taking place concerning environmental issues. We welcome news of your meetings whether they are local, national or international in scope.

It is very difficult to get 'EE Switchboard' to each address on our mailing list in time for adequate notice of all the meetings. Our mail, even by air, has been known to take months to reach some recipients (and at times it has disappeared completely). In the case of each meeting, a contact address is given and if you are interested in the outcome of any particular meeting you can follow it up by using the contact address.

March 1 - 8

Environmental Science Education Workshop
Held: Nairobi, Kenya
Contact: Mike Savage, Kenya Inst. of Education, P.O. Box 30231, Nairobi, Kenya.

March 4

Young People and the Environment
Held: Parrs Wood Centre, Manchester, UK
Contact: Council for Environmental Educ., School of Education, Reading University, London Rd., Reading RG1 5AQ, UK.
Note: Focusing on the schemes in the North-West.

Health and Safety at Work Conference
Held: Digbeth Hall, Birmingham, UK
Contact: Elizabeth Spector, 24 Grange Rd., Elstree, Herts, UK.
Telephone: 01 953 6698

March 6 - 7

International Recycling Conference
Held: Basle, Switzerland
Contact: Mr. M.E. Henstock, University of Nottingham, Dept. of Metallurgy & Materials Science, University Park, Nottingham NG7 2RD, UK.

March 10 - 14

Environmentally Sound and Appropriate Technology, Co-ordination Meeting
Held: Nairobi, Kenya
Contact: P. Bifani, Appropriate Technology Task Force, Division of Environmental Management, U.N.E.P., P.O. Box 30552, Nairobi, Kenya
Note: For experts and agencies

March 12 - 16

Society of Toxicology Annual Meeting
Held: San Francisco (California), USA
Contact: Dr. G.Boxill, Society of Toxicology, c/o Wyeth Labs., Box 861, Paoli, Pennsylvania 19301, USA

March 14 - 15

Advisory Selection Committee on the International Pahlavi Environment Prize Meeting
Held: Paris, France
Contact: External Relations Office, UNEP, P.O. Box 30552, Nairobi, Kenya
Telephone: Nairobi 333930, Ext. 536

March 15

30th Annual Conference, Kenya National Farmers Union
Held: Nairobi, Kenya
Contact: J. Feingold, K.N.F.U., P.O. Box 1225, Nakuru, Kenya
Telephone: Nakuru 2338

March 15 - 16

Environmental Chemistry and Health, Royal Society Meeting
Held: London, UK
Contact: The Royal Society, 6 Carlton Terrace, London, SW1Y 5AG, UK.

March

Environmental Management Education for Technicians and Administrators:
17 - 19 Held: Darjeeling (W.Bengal), India
23 - 24 Held: Varanasi (U.P.), India
28 - 30 Held: Udaipur (Rajasthan), India
Contact: Dr. Desh Bandhu, Indian Environmental Society, 8 Darya Ganj, New Delhi 110002, India.
Telephone: 278764

March 18 - 28

Intergovernmental Conference on
Protection of the Marine Environment
Held: Kuwait
Contact: S. Keckes, Regional Seas PAC,
UNEP Liaison Office, Palais des
Nations, 1210 Geneva, Switzerland.

March 19

Mass Environment Assembly and Conference
Held: Limassol, Cyprus
Contact: J.D. Potamitis, Orivatikos
Physiolatrikos Omilos Lemesou,
P.O. Box 225, Limassol, Cyprus.

March 19 - 23

World Disarmament and Development after
Belgrade
Held: Dubrovnik, Yugoslavia
Contact: ISMUN, 5 Chemin des Iris,
1216 Cointrin, Geneva, Switzerland
Telephone: 331756
Note: There will be four working groups
on the following topics - Belgrade
Review Conference of the Final Act
of Helsinki;
- Conversion of Military industrial
capacity to civilian uses;
- Education for disarmament and develop-
ment;
- Proposals for the UN Special Session
on Disarmament to begin on 23 May 1978

March 19 - 23

Organic Husbandry Course
Held: Shropshire Farm Institute, Walford,
Baschurch, Shrewsbury, UK
Contact: Soil Association, Walnut Tree
Manor, Haughley, Stowmarket, Suffolk
IP14 3RS.
Telephone: Haughley 235/6
Note: The course fee will be about £26
and will cover accommodation, tuition and
and meals. The programme will include
a simple scientific introduction to soil
structure and plant nutrition, followed
by the practical application of organic
methods in agriculture and horticulture.

March 20 - 22

Resources Policy Conference 1978
Held: Christchurch, Oxford, UK
Contact: Resources Policy Conference,
IPC Science and Technology Press,
32 High Street, Guildford, Surrey
GU1 3EW, UK.

Note: An international conference on
economics, politics and social imp-
lications of resource use and conser-
vation. All-inclusive conference fee
of £160 + £12.80 VAT covers confer-
ence reprints, attendance, single
accommodation, meals, all necessary-
conference information.

March 20 - 24

Ecological Fieldwork - A Conservationist
Approach
Contact: The Principal, Peak National
Park Study Centre, Losehill Hall,
Castleton, Derbyshire
Note: This is a course designed for sec-
ondary school biology teachers to
demonstrate some ideas for the use of
new study areas. Write enclosing
stamped addressed envelope and quoting
ref. LA.

March 21

WORLD FORESTRY DAY
EARTH DAY

Debate on Earth Day
Held: Nicosia, Cyprus
Contact: C.P. Ionnides, Dept. of Town
Planning and Housing, Ministry of the
Interior, Nicosia, Cyprus.

March 21 - 31

Exhibition - Water: a precious resource
Held: Exhibition Hall, Baroda Museum,
Baroda, India
Contact: Dr. G.M. Oza, Indian Society of
Naturalists, Oza Building, Salatwada,
Baroda 390 001, India.

March 24 - 27

General Conference of ISMUN
Held: Dubrovnik, Yugoslavia
Contact: ISMUN, 5 Chemin des Iris,
1216 Cointrin, Geneva, Switzerland.
Telephone: 331756

March 26 - 30

Resource depletions, energy alternatives
and the quality of life in the year 2000.
First World Congress.
Held: Riyadh, Saudi Arabia
Contact: Dr. S. McLivary, Int. Assoc. for
Advancement of Earth and Environmental
Sciences, c/o University of Riyadh,
Riyadh, Saudi Arabia.

March 28 - 30

National Leadership Conference on Environ-
mental Education
Held: National Wildlife Federation,
1412 16th Street, NW, Washington DC, USA
Contact: Rudy Schafer, Alliance for Env-
ironmental Education, 1619 Massachusetts
Avenue NW, Washington DC 20036, USA.
Note: Registration fee \$40

March 28 - April 7

Integrated Science Education Worldwide,
International Conference
Held: Nijmegen, Netherlands
Contact: Frits Dekkers, Faculty of Science
University of Nijmegen, the Netherlands

March (end)

Environmental Chemistry Network Workshop
East and Central Africa
Held: Nairobi, Kenya
Contact: Dr. S.O. Wandiga, Chemistry Dept.,
University of Nairobi, PO Box 30197,
Nairobi, Kenya.
Telephone: 43185/43553, Ext. 200

April (beginning)

Environmental Chemistry Network Workshop
West Africa
Held: Ibadan, Nigeria
Contact: Dr. Oladele Osibanjo, Dept. of
Chemistry, University of Ibadan,
Ibadan, Nigeria.

April 3 - 12

Working Group of Governmental Experts on
Environmental Law
Held: Geneva, Switzerland
Contact: Environmental Law Unit, United
Nations Environment Programme,
P.O. Box 30552, Nairobi, Kenya.

April 4

Combustion Technology
Held: Leeds University, South Yorkshire,
England, UK
Contact: Dept. of Fuel and Combustion
Science, or the Dept. of Adult Educ-
ation, Leeds University, South York-
shire, England, UK.
Note: £40 including papers but excluding
accommodation.

Meetings - March to June 1978 cont.

April 7 - 8

Appropriate Technology Conference and Exhibition
Held: Grinnell College (Iowa), USA
Contact: Barbara Gunther, Grinnell College
Grinnell, Iowa 50112, USA.

April 22 - 26

Follow-up on the Inter-governmental Conference on Environmental Education, thematic joint programming.
Held: Paris, France
Contact: Dr. Victor Johnson, Education and Training Unit, U.N.E.P., P.O. Box 30552, Nairobi, Kenya
Note: UNEP and UNESCO.

April 29

National Anti-Nuclear Demonstration
Held: Central London, England, UK
Contact: Friends of the Earth, 9 Poland Street, London W1V 3DG, UK
Telephone: 01 434 1684
Note: Assemble by 12.30 at Speakers' Corner Hyde Park, London.

April 30 - May 7

Olympia's Festival of Mind and Body,
Held: London, UK
Contact: Sir John Sinclair Museum of Future Possibilities, Festival of Mind and Body 1978, 16 Great Ormond St., London WC1N 3RB, UK

May 2 - 5

Consultative Group Meeting on UNCOD
Held: Nairobi, Kenya
Contact: Office of the Assistant Executive Director, U.N.E.P., P.O. Box 30552, Nairobi, Kenya.

May 3

SUN DAY
Contact: Sun Day Coordinators, Suite 1100
1028 Connecticut Avenue NW, Washington
DC 20036, USA.

May 6 - 7

Festival of Resistance and Alternatives to Nuclear Energy
Held: Nuclear reactor site, Torness, East Lothian, Scotland
Contact: Scottish Campaign to Resist the Atomic Menace (SCRAM)

May 9 - 25

Governing Council of UNEP (GC VI)
Held: Nairobi, Kenya
Contact: Dr. Gary Herbertson, NGO Liaison Officer, U.N.E.P., P.O. Box 30552, Nairobi, Kenya.

May 10 - 13

International Technical Communication Conference
Held: Dallas (Texas), USA
Contact: J.W. Trumble, Gardner-Denver Co., Box 26208, Dallas, Texas 75226, USA.

May 15 - 17

International Conference on Residuals, Additives and Materials Properties: The detrimental and beneficial effects of minor constituents on materials properties.
Held: London, UK
Contact: Dr. Colin Lea, National Physical Laboratory, Teddington, Middx. TW11 0LW, UK.

May 19 - 28

Community Action in Europe Network Symposium
Held: La Rochelle, France
Contact: 14 Dronningensgade, DK 1420

Copenhagen, Denmark; or
Bill James, N. London Polytechnic,
61 Ladbroke House, Highbury Grove N5,
London, UK. Telephone: 01 607 2789,
Ext. 5027.

May 23 - June 20

Sub-Lethal Effects of Pollutants in the Sea, Royal Society Meeting
Held: London, UK
Contact: Royal Society, 6 Carlton House Terrace, London SW1Y 5AG, UK.

May 31 - June 2

World Environment Day Symposium
Held: Strobl/Wolfgangsee, Austria
Contact: ABNO - Arbeitsgemeinschaft der Berg- und Naturwachten Osterrichts, Wien 1238 Mauer, Schwarzwaldgasse 8, Austria. Telephone: 8824 383 Vienna

May

UNEP/ESCAP Inter-governmental meeting on the development of legislation for the protection of the environment.
Held: Bangkok, Thailand
Contact: Environmental Law Unit, U.N.E.P., P.O. Box 30552, Nairobi, Kenya

June 3

Water is Life Walk
Held: Uhuru Park, Nairobi, Kenya
Contact: Kenya Freedom From Hunger Council, P.O. Box 30762, Nairobi, Kenya

June 3 - 5 (approx.)

The Environment in Malaysia
Held: Penang, Malaysia
Contact: The Secretary, Symposium on the Environment in Malaysia, c/o Consumers' Association of Penang, 21-C Codrington Avenue, Penang, Malaysia. Telephone 20361

June 4 - 18

15 Days of Nature
Held: ?
Contact: Association Pour La Sauvegarde de la Nature Neo-Caledonienne, 50 rue Anatole France, Noumea, New Caledonia. Telephone: 721-24.

June 5

WORLD ENVIRONMENT DAY

June 5

National poster/essay competition and exhibition on the environment
A major thoroughfare in all State capital cities will hopefully be traffic-free all day.
Contact: Environment Protection Society, 127 Jalan 17/14, Petaling Jaya, Selangor, Malaysia. Telephone: 03-564287.

June 5 - 6

Agricultural and Industrial Development of the Southern Local Governments of Egypt Within the Frame of Conservation of Environment and Natural Resources - Symposium and Exhibition.
Held: University of Assiut, Egypt
Contact: A. Maher Ali, Secretary, Environment Symposium Plant Protection Dept., College of Agriculture, University of Assiut, Assiut, Egypt.
Note: Experts in universities and other institutions are invited to give their experience on environmental problems in local governments of Assiut, Souhag, Quena, Asswan including Lake Nasser, Red Sea and New Valley.

The University is offering free accommodation to all participants and those interested in attending should contact Dr. A. Maher Ali as soon as possible.

June 5 - 11

Homeostasis of Terrestrial Ecosystems
Conference & Exhibition on "The Strength
of Life".

Held: Jablonna, nr. Warsaw, Poland

Contact: Prof. dr. P. Trojan, Institute
of Zoology, Polish Academy of Sciences,
ul. Wilcza Nr. 64, 00-679 Warszawa,
Poland.

Note: for Comecon Countries

June 1978

11th World Festival of Youth and Students
Held: Havana, Cuba

Contact: World Federation of Democratic
Youth, P.O. Box 147, Budapest 1389,
Hungary. Telephone: 128 640.

Note: Some of the discussion topics are
the New International Economic Order,
disarmament, the United Nations and
Human Rights.

INGO ENVIRONMENTAL EDUCATION NETWORK

List 2

● AFRICA ●

Council for Human Ecology (CHEK),
P.O. Box 20360,
NAIROBI,
Kenya.

Att: Mrs. E. Mann

(Mr. W.N. Mbote, Chairman
Tel: 336013
Mrs. E. Mann, Public Relations Officer,
Tel: 22564/27461)

Environmental Chemistry Network,
Chemistry Department,
University of Nairobi,
P.O. Box 30197,
NAIROBI,
Kenya.

Att: Dr. S.O. Wandiga

(Dr. S.O. Wandiga, Eastern Africa Coordinator,
Tel: 43185/43553, Ext. 200)

International Youth Federation,
Regional Coordinator,
P.O. Box 42076,
NAIROBI,
Kenya.

Att: Elizabeth Wangari

(Ms. Elizabeth Wangari, Coordinator
Tel: Nairobi 891601)

Environmental Chemistry Network,
Department of Chemistry,
University of Ibadan,
IBADAN,
Nigeria.

Att: Dr. Oladele Osibanjo

(Dr. Oladele Osibanjo, West African Coordinator)

Network of Educ. Innovation for Development in
Africa (NEIDA),
Regional Office for Education in Africa,
P.O. Box 3311,
DAKAR,
Senegal

Att: Olu Ogunniyi

(Olu Ogunniyi, Coordinator
Tel: 237-72/73, Cable: UNESCO DAKAR,
Telex: 410 UNESCO S.G.)

Bakotila Nsete,
B.P. 614,
KISANGANI,
Haute Zaire,
REPUBLIC OF ZAIRE

● ASIA AND THE PACIFIC ●

Awabakal Assoc. for Environmental Education,
Science Department, Newcastle CAE,
P.O. Box 84,
WARATAH 2298,
New South Wales,
Australia.

Att: K. MacDonald

(Kevin MacDonald, President
Tel: 049-574003)

Fur and Feathers,
Charlton Lodge,
NAINI TAL,
U.P., India.

Att: Anil Prasad

(Anil Prasad, Secretary)

Indian Society of Naturalists,
Oza Building,
Salatwada,
BARODA 390001,
India.

Att: Dr. G.M. Oza

(G.M. Oza, General Secretary)

Indian Youth Society,
B-4 Officers Colony, Delhi Road,
SAHARANPUR 247001,
U.P., India.

Att: Shankar Das

Indore-Eco Society,
Botany Department, P.M.B. Gujarati College,
INDORE M.P.,
India 452001.

Att: O.P. Joshi

(O.P. Joshi, Tel: 38143)

Science for the Villages,
739 JNU,
NEW DELHI 110057,
India.

Att: D. Kumar

Virupaxi Chanvir Simpi,
474 Chati-galli,
SHOLAPUR 413002,
India.

Youth and Family Planning Programme Council,
Secretariat, F-13,
South Extension, Part 1,
NEW DELHI 49,
India.

Att: Mr. Shiv Khare

(Shiv Khare, General Secretary
Tel: 624776, Cable: INDUNISTUD)

Marga Institute,
P.O. Box 601,
61 Isipathana Mawatha,
COLOMBO 5,
Sri Lanka.

Att: C.H. Soysa

(C.H. Soysa
Tel: 85186/81514, Cable: MARGA COLOMBO)

Biology Department, Box 843,
Tunghai University,
TAICHUNG,
Taiwan 400.

Att: Dr. Edgar Lin

● EUROPE ●

Centre for Interdisciplinary Research and
Development (CRID),
152 Rue Valduc,
B-1160 BRUSSELS,
Belgium.

Att: J. Dorselaer

(Jacques Dorselaer, Coordinator
Tel: (02) 672.41.72)

Department of Town Planning and Housing,
Ministry of the Interior,
NICOSIA,
Cyprus.

Att: C.P. Ionnides

Programme in Environmental Education,
UNESCO, ED/STE,
7 Place de Fontenoy,
75700 PARIS,
France.

Att: Mr. S. Romero-Lozano

(Simon Romero-Lozano, Chief,
Tel: 577-16-10, Cable: UNESCO PARIS)

Centre for Ecological Prophylaxy,
Klinika Hematologiczna,
Inst. Medycyny Wewnetrznej,
Akademii Medycznej, Ul. Kopernika Nr. 17,
31-501 KRAKOW,
Poland.

Dr. Jan Dobrowolski

J.L.Emmenegger,
P.O. Box 1318,
4001 BASLE,
Switzerland

'Environmental Conservation',
15 Chemin f.-Lehmann,
1218 Grand-Saconnex,
GENEVA,
Switzerland

Att: Prof. N. Polunin, D.

(Prof. Nicholas Polunin, Editor
Tel: 022-98-23-8314)

Commonwealth Secretariat,
Malborough House,
Pall Mall,
LONDON SW1Y 5HX,
U.K.

Att: Christian de Laet

(Christian de Laet, Secretary
Tel: 839-3411, Cable: COMSECGEN LONDON SW1
Telex: 27678)

Future Studies Centre,
15 Kelso Road,
LEEDS, LS2 9PR,
U.K.

Att: Roland Chaplain

(Roland Chaplain, Secretary,
Tel: 0532 459865)

● LATIN AMERICA AND THE CARIBBEAN ●

Assoc. Demografica Salvadorena,
Calle Ruben Dario Edif. 11-12,
Aptdo (06) 1338,
SAN SALVADOR,
El Salvador. (Central America)

Att: Lic. R. Castaneda Rugamas

(Lic. Ricardo Castaneda Rugamas,
Tel: 22-1050)

● NORTH AMERICA ●

History Department,
Mackenzie High School,
Box 397, Deep River,
Ontario KOJ 1P0,
Canada.

Att: H. Von Fintel

Alliance for Environmental Education,
1619 Massachusetts Avenue NW,
WASHINGTON DC, 20036,
U.S.A.

Att: Executive Director

(Executive Director, Tel: 265-0630)

Centre for Environmental Information Inc.,
33 South Washington Street,
ROCHESTER, NY 14608,
U.S.A.

Att: Ms. E. Thorndike

(Elizabeth Thorndike, Executive Director
Tel: 716-546-3796)

Friends of the Earth International,
124 Spear Street,
SAN FRANCISCO,
California 94105,
U.S.A.

Att: David Chatfield

(David Chatfield, International Liaison,
Tel: 415/495-4770)

● WESTERN ASIA ●

Asia-Pacific Broadcasting Union,
P.O. Box 33-424,
TEHRAN,
Iran.

Att: Kambiz Mahmoudi

CORRECTION TO LIST 1, EE Switchboard 1:-

Argentina replace address for ISMUN Argentina
with the following:-

MAJNU (Argentine Youth Movement for the UN),
Caferata 1240,
2000 ROSARIO,
Argentina.

Att: Daniel Almiron

U.S.A. - the name of the NGO listed as
Emity Foundation should be changed to
Amity Foundation. We apologise for any
inconvenience caused through this error.

COSTA RICA: AMBISIOSO PROYECTO DE
EDUCACION AMBIENTAL

La Asociación Costarricense para la Conservación de la Naturaleza (ASCONA) planea llevar a cabo un ambicioso proyecto de educación ambiental, dirigido al gran público. A través del mismo se intenta llamar la atención de todos los costarricenses acerca de los problemas ambientales de la región del Valle Central, la región más poblada del país.

El proyecto se llevará a cabo entre el 21 de marzo y el 5 de junio del corriente año y consistirá en primer lugar en un seminario que abordará los siguientes temas referidos al Valle Central: agua potable, aguas negras y servidas, ríos, recreación, desarrollo urbanístico, contaminación y alteración del paisaje, sistema de transporte, uso del suelo y aspectos de administración pública. Simultáneamente con el seminario se organizarán mesas redondas con la participación de personas importantes de la vida pública y de técnicos y representantes de instituciones nacionales para analizar toda la información reunida durante el seminario y producir recomendaciones concretas. Estas mesas redondas serán grabadas en videotape, para producir un programa semanal de una hora de duración en la cadena nacional. A su vez se piensa que toda esta movilización encontrará suficiente eco en la prensa y radio, de tal manera que toda la población pueda tener acceso a la información referida a temas que de una manera u otra le atañen particularmente.

Tal como la ha planteado ASCONA, los siguientes serán los objetivos del proyecto:

- 1) El público conocerá el verdadero sentido y alcance de muchos proyectos, leyes y fenómenos sociales, económicos, políticos y ambientales.
- 2) Por desarrollarse en forma temática el seminario estará desligado de compromisos políticos, institucionales o sectoriales, dándole a los problemas enfocados su verdadera perspectiva.
- 3) Permitirá la elaboración de recomendaciones concretas que sirvan de orientación para resolver los problemas tratados.
- 4) Los medios de información masiva se verán obligados a focalizar los problemas ambientales.
- 5) Muchos profesionales y estudiantes verán posibilidades nuevas de trabajo, a la vez que se hará evidente la falta de estudios y personal capacitado para resolver los problemas del medio ambiente.
- 6) El público podrá desarrollar una conciencia más clara acerca de estos problemas, orientando mejor su demanda por soluciones concretas.
- 7) Planteará la evaluación de los programas institucionales que se están implementando.
- 8) Permitirá la producción de material educativo, como cintas grabadas y fotografías, que podrán ser utilizadas en otras oportunidades.

Para mayor información dirigirse a: ASCONA, Apartado 8-3870, San José, Costa Rica, Teléfono 23-27-49.

Abstract: ASCONA (Costa Rican Association for the Conservation of Nature) is organising a 4-month, interdisciplinary, investigation into the environmental problems of the Central Valley, the most populated area of Costa Rica.

The investigation has two aspects which will be carried on simultaneously. Information on the environmental aspects of the Central Valley will be collected by teams of people of different disciplines. For example, there will be experts on water supply and sewerage, land management, recreation, urban development, transportation and public administration, to name a few. As the information is collected, it will be discussed by official administrators, technicians and representatives of national organisations in seminars. These seminars will be televised on hourly programmes through the national TV network.

The investigation will take place from 21 March to 5 July and it is expected that the result will be concrete recommendations for the management of the environment in the Central Valley.

Tape-recordings of discussions and the information collected will be kept for future education programmes to be developed.

For further information contact: ASCONA, Aptdo.8-3870, San José, Costa Rica, Telephone: 23-27-49

INFORMING ENERGY CONSUMERS

The U.S. Department of Energy Information, as part of their program to inform energy consumers about their policies and actions, is holding a series of briefings for the general public, one per month for 6 months, in Washington. For each topic several key officials address the audience and afterwards a panel of the Department's officials are available to answer questions. Copies of each briefing are subsequently made available in the Department's public reading rooms in Washington and at its 10 regional offices. They will also be available for purchase.

Titles of the briefings for the last 4 sessions are:

- February: *'The Role of the Department of Energy in Utility Rate-Making'*.
March: *'Energy and Consumer Protection, Competition and Fraud'*.
April: *'Energy and Urban Policies/Programs Programs'*.
May: *'Energy and Food'*.

In many parts of the world such public briefings by a government department to educate the public are unheard of. We would be interested to know how informative these briefings are and how American NGOs make use of them. Are there any developing country NGOs with access to government briefings on some aspect of environmental education?

Source: Department of Energy Information. Weekly Announcements. Vol.2, No.8, Week ending 24 February 1978. Office of Public Affairs, Washington DC 20461, USA.

**"ALTERNATIVES" - DEVELOPMENT EDUCATION
FROM SCANDINAVIA**

We received in February the first, in the English version, of a new periodical 'Alternatives' (undated and not numbered) published by the "Norwegian Committee for UNICEF". It is a magazine for teachers, published twice a year on development education. National editions of 'Alternatives' are produced jointly by the UNICEF Committees and the UN Associations of Finland, Denmark, Sweden and Norway. The English language version, which is reviewed here, is produced from the first two Norwegian editions. The authors aim to give teachers ideas on development education which will be practical and useful in their everyday work.

Because the periodical is designed to meet the needs of teachers in Scandinavian countries, some of the articles are not of direct relevance to teachers further afield. The articles are likely to be most stimulating to teachers in other developed countries, but this does not exclude developing country teachers all together.

The first article, "The global aspects of teaching" concentrates on introducing elements of 'internationalized education' into different disciplines in the school curriculum. Internationalized education is intended to help pupils obtain an international outlook, "from which future attitudes and action may spring". The components of such education are not delineated entirely in the article but those mentioned are:

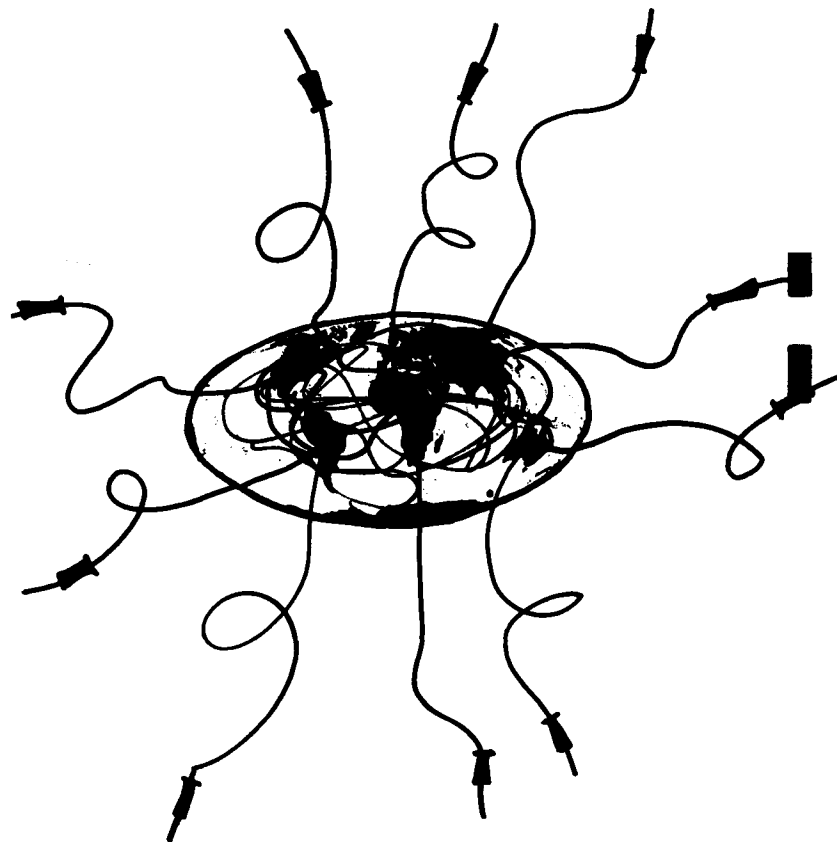
- (a) The topics examined need to be directly related to the experiences of the students. An example of this appears in a later article in the same issue where lessons for secondary students are provided on the concept contained in the phrase 'global village' by examining the articles in the classroom and the students' homes to see their origin. Some of the things will come from developing countries indirectly, such as cocoa in chocolate and the copper on the electric wiring.
- (b) A set of fundamental attitudes required for international understanding should be elaborated. (No particular examples are given but perhaps tolerance of the views of others would be one such example).
- (c) Abolition of intolerance and narrow-mindedness must be achieved. Seven means suggested for the teacher to do this are listed; for example: the first is 'prevent pupils, as far as possible, from receiving prejudiced information' - a controversial suggestion.
- (d) Because most national education systems present views of the world from a particular national viewpoint, development education teachers should attempt to provide factual and emotive information from the point of view of the people being studied. It is suggested that this can be done through study of fiction and history written by those of other cultures and regions. For example, Nehru's history of the world is suggested as an interesting source of historical information from a non-Scandinavian viewpoint.
- (e) Evaluation of information from different sources is also necessary. For Norwegian children, they suggest this is particularly important where the source is the mass media such as TV.

This article would be of interest to development education teachers anywhere.

The next article gives a Norwegian example but points to a general principle, that development education should be a component of many of the school disciplines such as religious instruction, study of the national and foreign languages and the social sciences. Ideas on how to do this are given. Five articles are practical classroom examples of lessons for primary to senior secondary students, designed to encourage understanding of development problems. In the middle is a game called the 'Ecuador Game'. It is based on situations common to millions where the rich get richer and the poor get poorer, it can also be related to the world situation and the need for a New International Economic Order. There is no necessity for it to be directly related to Ecuador; being distributed internationally it would have been better to have created a non-existent country; however, it is only meant as a stimulating example, and it is created by the *Swedish Mission Association*. We have been so stimulated that with an added environmental dimension and using a non-existent country, we have included an altered version in this issue of EE Switch-board.

Although the relationship between environment and development is not clear from most of the articles, and an important omission - the teaching approaches and practical examples given could easily be used where this relationship was to be understood by the students. Teachers in other areas of the world could choose their own examples which would be more relevant to their students, but get some ideas on practical teaching approaches from this magazine.

Source: Alternatives. UN Association of Norway, Egedesgt 1, Oslo 1, Norway.
Telephone: (02) 67 83 80.



Credit: Earth Resources Research Ltd.,
40 James St., London W.1, U.K.

1979



International
Year of the Child

NGOs Asked to Announce IYC Plans

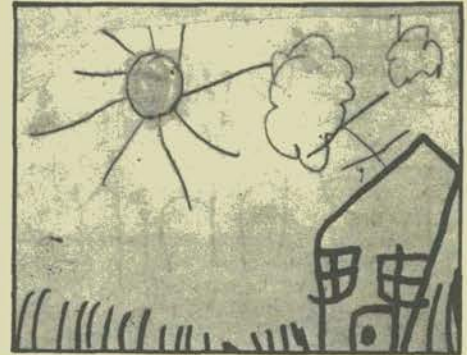
All non-governmental organisations (NGOs) interested in the International Year of the Child are asked to inform the NGO/IYC Committee of their anticipated activities for the Year or when their plans may be expected.

Five areas of interest are suggested: Rights of the Child; Family; Health and Welfare; Education and Recreation; Child and Environment; Communications and Mass Media. Your organisation is asked to indicate, if appropriate, where its present plans would fit under these headings, or

whether it would be interested in working with other NGOs in one or more of these areas. These headings are not necessarily to be the titles of Committee Working Groups; they have been developed solely on the basis of what seems to be the "clusters" of NGO interest to date. They are not meant to be restrictive.

If your organisation has already reported its plans to this Committee and has nothing further to add at this time, you may just refer to your earlier communication.

The address of the NGO/IYC Committee is: 65, rue de Lausanne, 1202 Geneva, Switzerland; or 866 United Nations Plaza, New York, N.Y. 10017, U.S.A.



Jennifer Age 5

(Reprinted from IYC Report,
No.5, December 1977.)



AN INTERDISCIPLINARY WORKSHOP IN ENVIRONMENTAL EDUCATION FOR IN-SERVICE, ELEMENTARY AND SECONDARY SCHOOL TEACHERS

AT

COOK COLLEGE (RUTGERS UNIVERSITY) NEW BRUNSWICK, NEW JERSEY

JULY 10 – AUGUST 3, 1978

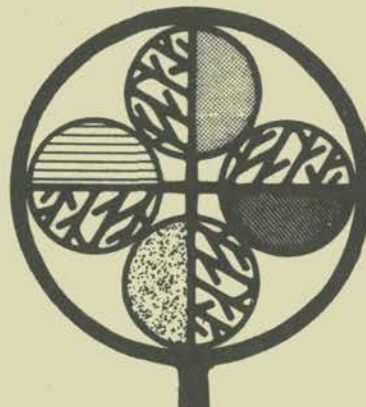
TUITION-FREE

—

REGISTRATION \$50

—

5 CREDIT-HOURS



Hours: 9:00-4:00

—

Monday-Thursday

—

ENROLL TODAY

CO-SPONSORS: COOK COLLEGE AND THE AMERICAN SOCIETY FOR ENVIRONMENTAL EDUCATION

FOR FURTHER INFORMATION WRITE or PHONE:

DR. ARTHUR W. EDWARDS, JR.
DEPARTMENT OF EDUCATION
COOK COLLEGE
P.O. BOX 231, NEW BRUNSWICK, NEW JERSEY 08903
TEL: 201-932-9164

TO TAKE ADVANTAGE OF THIS TUITION-FREE OPPORTUNITY, YOU MUST ENROLL TODAY



EE SWITCHBOARD

Centro de Enlace sobre el Medio Ambiente
P.O. Box 72461
Nairobi, Kenia
Teléfono: 24770

Centre de Liaison pour l'Environnement
P.O. Box 72461
Nairobi, Kenya
Téléphone: 24770

Environment Liaison Centre,
P.O. Box 72461,
Nairobi, Kenya
Telephone: Nairobi 24770

No. 3 May/June 1978

Contents - see page 12 >>>

NOTE FROM THE EDITOR

This issue of EE Switchboard may be the last for a long time as the funds for the Environmental Education Project have finished. We are happy to correspond with you through the mail and will assist in any way we can in putting organizations working in Environmental Education in contact with one another.

IN COLUMBIA - TAKING ENVIRONMENTAL EDUCATION TO THE PEOPLE :

From an interview with Delmar Blasco, World Environment Day Coordinator for Latin America and Africa, 1978.

Several educational projects are being successfully undertaken by the *Ecological Group* of the University of Tolima in Colombia. The group started in the University but now is composed of about 60 active members from the University and from other occupational groups outside the University. The Ecological Group concentrates on providing various kinds of environmental education for the general public and children.

Ecological Recreation for Children

Perhaps the most interesting project is that which provides 'ecological recreation' for children from ages 6 to 13 and their parents. Once a month, on a day in the weekend, the Ecological Group takes a group of up to 150 children and parents on a nature trail which runs through some private property on the side of a mountain nearby. The nature trail has been planned around 6 Stations which are at places along the trail where particular activities are concentrated.

The children who are taken come from local schools and youth groups. When they make a request to be taken on the nature trail the Ecological Group take all responsibility for the educational and recreational aspects of the tour but the parents, teachers and/or youth leaders are responsible for the transport



l to r: Loz Marina Cruz, Alvaro Arias, Delmar Blasco, Gloria de Carvajal, Antonio Marin, Member of Group, Gonzalo Palomino, Magdalena E. de Polanco.

and their own food and drink. As it is also the aim of the Ecological Group to improve the environmental attitudes of the parents as well as the children, a brief talk is given to the parents and other adults going on each excursion during the week beforehand. The adults are given basic information about the appropriate way to dress the children, the food to take etc. but more importantly they are given an explanation of the purpose of the trip. The parents are told that children will be involved in going into the water with their shoes and clothes on and getting very dirty with soil. It is explained that this is done to help the children enjoy the experience and encourage their natural curiosity without fear for their appearance. Experience has taught the Ecological Group that without such a preliminary talk the parents are inclined to resist the full participation of the children and to treat the event as mainly a picnic with little opportunity for learning.

The nature trail begins at the Reception Station where the children are welcomed and they start playing a few games. Throughout the trail the experiences of the children will involve much play which includes games mainly related to the natural environment. The second Station, Zero Station, is where the children are divided into groups of 20 to 30 according to age, under the supervision of an adult. In each group they are given a brief explanation of the meaning of ecology

and an outline of the day's programme.

Station One, the next along the trail, is to give the children the opportunity to become familiar with basic information about soil. Explanations are given about the composition of the soil and its origin, the things which live in the soil and its importance. The children are encouraged to dig in the soil for insects, touch it and examine it visually. Complete disregard for their clothes and cleanliness is encouraged, for example, the children are encouraged to pick up animal excrement on the soil and to discuss it with the instructors. At the next station, Station 2, water is the main subject examined. At this place there is a stream and water-fall. The climate is warm and so there is no problem in encouraging the children to get into the water - clothes, shoes and all. Explanation of the stream and the area around it is carried out by the children accompanied with explanations of where the water originates, its use, the relation of plants and animals to water, water purity and pollution etc.

A climb is needed to reach Station 3, to concentrate on air. This Station is high up and from it the children have a good view of the city. They can see factories which belch out smoke and any haze from pollution which covers the city. An explanation is given of the composition of air, and the

concept of air pollution and purity is demonstrated through activities such as the burning of different materials to show different kinds of smoke.

Station 4, the last point in the nature trail, is the place the instructors attempt to relate all the previous information on soil, water, air to plant and animal life. At this point they are introduced to the concept of food-chains and the ecosystem, man's place in these is then discussed. This is the only place where educational materials such as diagrams, are used to supplement the natural educational material of the environment.

The whole event takes from about 8 am to 3 pm and requires well organized activities involving about 50 members of the Ecological Group. It encompasses the need for a leader for each group of children, 4 to 5 instructors at each Station and several people knowledgeable in first aid. These trips began in late 1977 and the Ecological Group now have enough experience to run them on a monthly basis very smoothly. They are invariably a great success with the children and usually also with the parents. So far there have been so many requests that no group of children has been on the trip more than once and yet, from verbal feedback received by the Ecological Group, they find that the one trip can leave a long-term impression on the children concerning the concepts they learned about ecology during the trip.

Face-to-Face Communication With the General Public

Education of the general public has been done with a massive door-to-door campaign by youth under the auspices of the Ecological Group. The Group has scarce financial resources and to cover the target number of approximately 40,000 houses they use the voluntary help of about 1,000 secondary and university students with the support of local businesses which cover the costs of publicity and educational material. This year was the second time this campaign was carried out and it takes place on World Environment Day in and around Ibaguè, a city in Colombia.

The 1,000 students are divided into teams of 3 or 4, composed wherever possible of at least one university student and the rest secondary students. They are trained during the weeks prior to the campaign so that they are familiar with environmental concepts, the environmental problems and possible solutions for

the local area, and the way to go about talking to householders on the environment. Prior to the campaign, all the students have to provide a shirt, preferably white, which is printed by a local business with the symbol of the campaign. This saves considerable cost and the printing is paid for with contributions from local businesses. Each student is also provided with an identity badge to pin on the shirt.

Brochures to help the householders understand environmental issues and flags to identify the cars assisting are also printed with the donations from local businesses. Each business which contributes is given a poster to place on their building which has the slogan 'Here we combat pollution'.

On the day allotted as World Environment Day (not necessarily June 5) the teams of students go out to the householders in selected areas of Ibaguè and the villages closeby. One team goes to each house and after talking to the occupants leaves a brochure. Whenever there are any problems which a team cannot deal with they can call back to a central point in their area where instructors can give advice.

This campaign has been successful in reaching all sectors of society. It has been carried out on Sunday which is a day in Ibaguè that most families are at home and so the teams have the chance to reach all ages. Although most people living in the town are literate it is still possible to reach illiterates this way because most reliance is placed on the verbal communication of the teams who visit each house rather than the brochure which they leave behind.

Reaching the Rural Areas

As the town of Ibaguè depends mainly on agricultural production from the surrounding countryside the Ecological Group have a project particularly designed to reach the peasants. As many of these people are illiterate or with only the minimum of education it was decided that the most effective method of reaching them was through a twice weekly radio programme. This programme is broadcast at 6 am, a time when the peasants are about to leave for work and so are available to hear it. The language used is the common language, easily understood, and the environmental problems mentioned in the programme are only those which have specific local relevance, such as the use of pesticides. This project involves a lot of work for a

small team of 4 to 5 people, one of whom is also the speaker during the programme. However, it is done without any cost to the Ecological Group.

Ecological SOS

Another attempt made by the Ecological Group to reach and educate the general public has been the publication of a small bulletin 'SOS Ecologico', (Ecological SOS). Assessing the effectiveness of this Bulletin has been easier than assessing the effectiveness of the other projects carried out by the Ecological Group because they receive letters from readers and at times have moved others to take action on issues brought to light in the Bulletin.

The Bulletin concentrates on environmental issues with direct relevance to local conditions, similar to the radio programmes. However, the target group of the Bulletin is the literate general public. The information is collected and written by members of the Ecological Group but they also use material from members of other groups and people who write to them. In fact, many of the most important environmental issues raised in the Bulletin come from suggestions sent in by readers. Every effort is made to make the Bulletin absolutely factual but to keep the language non-technical and readable to the layman (it is in Spanish).

An environmental issue which was very effectively publicized through the Bulletin recently concerned the death of several children from tinned milk powder which was unhygienically prepared. The children's deaths were kept quiet until the Bulletin printed information about secret tests which were being carried out on the powdered milk. The factual information reported in the Bulletin was used by almost every newspaper in the country and from there the issue was taken up at government level and eventually the situation was improved. The Bulletin is distributed free to 4,000 people and organisations in Colombia. It relies on donations for the paper, printing and postage. Particular care is taken to distribute it to journalists who report on environmental issues. The Bulletin is published only when there is something important to publicize but in two years about 10 issues have been brought out.

Enquiries in English and Spanish to: Grupo Ecologico, Universidad del Tolima, Aereo 1013, Ibaguè, Colombia S.A.

ENVIRONMENTAL EDUCATION THROUGH THE MEDIA

When environmental issues first started to draw public attention there tended to be an emphasis placed in the media on the problems and potential doom to man. In the report of Dr. Tolba, Executive-Director of UNEP, to UNEP's Governing Council VI in May this year, he still regarded this emphasis as a major inadequacy of the information about the environment at the international level. The Report stated, 'Although the issue of environment has gained widespread attention in much of the world's media, the main emphasis has so far been on the problems; too little attention has been paid to solutions.' The other important inadequacy was that 'Many organisations and individuals are still unaware of the complementary nature of the link between protecting the environment and ensuring sustained development.' One attempting to deal with both NGO the above mentioned inadequacies through the media is *Earthscan*, a media information unit operated by the International Institute for Environment and Development, London.

As a free service to NGOs, *Earthscan* produces the 'Earthscan Bulletin' with articles for NGOs to publish related to environment and development. They have become increasingly involved also in supporting the production of environment films and have recently published a catalogue describing over 200 environment films produced in the last three years.

Enquiries to: *Earthscan*, 10 Percy St., London W1P 0DP England.

An Audio-Visual kit entitled 'Uranium Mining in Australia', has been produced by *Environment Audio-Visuals*, Victoria, Australia, recently. The kit comprises 76 slides, a 21 minutes synchronised cassette tape with commentary and sound effects, and a booklet containing instructions, questions for discussion and a transcript of the tape. A commercial distributor is also producing it in the form of a film strip so that it can be distributed to schools. The emphasis is on the social and physical environment of the uranium region and the likely impact of mining.

Environment Audio-Visuals has been established to make educational programs in the area of energy and

society. Plans are now being made to produce kits, in a similar form to 'Uranium Mining in Australia', on the nuclear power debate, energy and employment, energy alternatives, and alternative lifestyles. Constructive ideas and enquiries would be welcomed and should be directed to Neil Barrett, Environment Audio-Visuals, 51 Nicholson St., Carlton, Victoria 3053, Australia.

UNEP has audio-visual specialists in Nairobi, and is developing regional information systems by appointing information officers who will be concerned with the regional collection and distribution of audio-visual material related to the environment. Enquiries can be made through the NGO Liaison Officer, Gary Herbertson, at UNEP, P.O.Box 30552, Nairobi, Kenya.

Vision Habitat, the United Nations Audio-Visual Information Centre on Human Settlements, collects and distributes films related to settlements through their central office in Canada and regional offices in Nairobi, Mexico Bangkok and Geneva. (Regional offices of Vision Habitat are provided below). Each film distribution centre has a regional inventory of all the Habitat films produced in the region in their original language of production and an international inventory of about 80 films of particular substantive and cinematic value. All films are available on loan to NGOs. Vision Habitat is currently running three competitions: for a film script; television programme; and a still photo competition for a picture of a child. All three competitions are around the theme of human settlement and for each a cash prize is offered. Enquiries can be made to: The Editor, Vision Habitat News, Rooms E47-49, Palais de Nations, 1211 Geneva 10, Switzerland.

Contact addresses:
Vision Habitat, 2075 Westbrook Mall, Vancouver, Canada V6T 1W5, (Headquarters)
Vision Habitat, UNEP, P.O.Box 30552, Nairobi, Kenya. Attn: E.M. Moyo (Africa).
Vision Habitat, 1208B, U.N. Building, 12 floor, Sala Santitham, Bangkok, Thailand. Attn: G.P. Asthana. (Asia/Pacific).
Vision Habitat, Room E-47, Palais des Nations, 1211 Geneva 10, Switzerland. Attn: Jean-Pierre Cardinaux. (Europe).
Vision Habitat, CEPAL, United Nations, Apartado Postal 6-718, Mexico D.F. Attn: Edmundo Palacios. (Latin America).

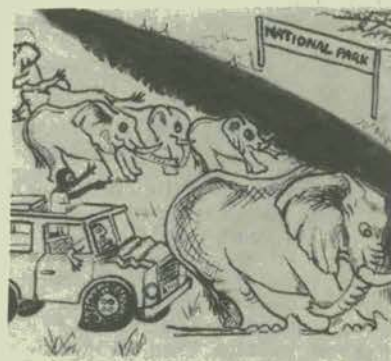
ANY IDEAS ON ENVIRONMENTAL EDUCATION FOR ELEPHANTS?

The Kenyan periodical published by the *Kenya National Farmers' Union*, 'Farmers Voice', of May 1978, included the following item:

RAMPAGING elephants have caused damage estimated at £50,000 in the past four months to crops and fences on farms in Manyuki and Rumuruti areas of Laikipia District.

The elephants, which have been chased out of the game parks in Samburu Plain by poachers, have destroyed miles of fencing and ruined maize and wheat crops.

A herd of 200-300 has 'taken up residence' on one farm and another herd of about 200 has invaded another farm. Game Warden Bill Woodley and a team of his workers, using Land-Rovers, pushed several hundred back but Woodley says the elephants are reluctant to cross the tarmac. Game Department officials have promised to take stronger measures to move them.



WORKSHOPS FOR HIGH SCHOOL AND UNIVERSITY TEACHERS

High School and University teachers will be invited to participate in a nationwide program of 68 energy education workshops to be held this summer under the sponsorship of the Department of Energy (DOE), USA.

Emphasis will be placed upon increasing teacher understanding of energy issues and options. Up to 50 faculty members will be invited to participate in each workshop which will last from one to three weeks.

"Public understanding is crucial to the Nation's solving its energy problems," said Dr. Lawrence G. Stewart, Director of DOE's office of Education, Business and Labor Affairs, which is coordinating

the summer workshops. "The Department's goal in sponsoring the teacher workshops is to provide as much factual information as possible about major energy resources, supply and conservation technologies and related economic and environmental concerns which are becoming increasingly important to our society. The workshops program will serve as an important vehicle for advancing the capabilities for energy education within the academic community."

The 68 workshops were selected from 337 proposals received in October, 1977. DOE's funding for the selected workshops totals approximately \$1 million. Support will include payment of living and travel allowances for invited participants in addition to operating costs of the conference. In some cases, the university will match a portion of the DOE funding.

Source: Department of Energy Information. Weekly announcements. Vol. 2, No.6, week ending 10 February 1978.

Omission in EE Switchboard 2

The front cover photo was of Dr. Hubert Dyasi, of the Science Education Programme for Africa, Accra, Ghana. We regret that his name did not appear below the photo.

YOUTH MOVEMENTS IN ZIMBABWE

In preparation for independence in Zimbabwe (Rhodesia) to begin in December 1978, youth movements in the country have started to plan for the kind of positive efforts they can make to rehabilitate youth displaced by the long Liberation War and to assist them in making use of the opportunities for employment and education which become available.

In an interview with Mr Philip Mpumzwana, General Secretary of the YMCA of Rhodesia, some of the complexities involved in planning for the youth were elaborated.



Mr Philip Mpumzwana

The two main areas of need are education and training, and for those ready for employment, finding employment. It will require efforts on a very large scale in both these areas if Zimbabwean youth are to make the contribution they are capable of in the free society.

The youth who will require help from such organisations as the YMCA will come from various kinds of difficult experiences and almost all of them will have had to discontinue their education abruptly at some time in the past. In the rural areas most schools have been closed now for a year or more. Many people were moved into 'Protected Villages' far from their homes and in these villages there has been little opportunity to work as small garden plots are usually all that are provided for each family, and there are not usually any school facilities. Apart from youth who remained in rural areas, many of them crossed the borders into neighbouring countries and joined the Freedom Fighters or remained in refugee camps. These youth are also likely to need educational opportunities and they may need particular encouragement and consideration to aid their rehabilitation after stressful experiences at formative stages in their lives. A group which has not yet been mentioned are the youth in prison for political reasons, for example school children who left school to either join the Liberation War or seek opportunities over the border of the country when caught by the authorities were imprisoned. There were different categories of imprisonment but many were not allowed to continue schooling in prison and for all of them special programmes for rehabilitation will be needed. Some of these youth have been released recently and already require assistance, however, there are still many in prison.

The YMCA sees a need to make it possible for youth who do not want to continue formal schooling to be given vocational training so that they can, in a short time and with little capital, earn a living in small-scale and home industries. Training in leather-work, carpentry and weaving, for example, can be provided in a way similar to that so successfully used to create employment in Kenya by the YMCA.

As many people have been displaced from their home areas through being moved into 'Protected Villages' or through leaving areas because families were killed or villages destroyed, there is an immediate need to provide opportunities for youth to train and work in agriculture. Without such opportunities the move-

ment of these young people looking for opportunities in urban areas will make reconstruction of the society far more difficult. The possibilities for agricultural training for youth are being considered by the YMCA with a view to providing training for work on cooperative schemes such as for fisheries and poultry and then seeking land for settling the youth trained.

Although formal education is not a field in which the YMCA is active, they see a need to provide some kind of intermediary education for youth who dropped out of school for reasons related to the war and who would like to reenter formal education. For this they are considering a form of adult education which could provide coaching and counselling for youth.

Whatever schemes there are in education, training and employment they will need to be supported by opportunities for social activities and counselling which youth organisations will be well placed to provide. A free Zimbabwe will also need a programme to develop appreciation of African culture and allow its expression as for so long extensive propaganda and education have been directed against this. The YMCA sees there must be opportunities created for positive interracial experiences also, and inter-cultural programmes of drama, music and arts might be a starting point for this with the support of youth organisations.

Enquiries to: Mr Philip Mpumzwana at either YMCA, P.O. Box DH5, Highfield, Salisbury, Rhodesia or c/o World Alliance of YMCAs, 37 Quai Wilson, Geneva 1201, Switzerland.

ENVIRONMENTAL CHEMISTRY

From 6 - 16 April the Environmental Chemistry Workshop was held in Nairobi for the Eastern African segment of the *Environmental Chemistry Network* which has been set up among university chemistry departments in Africa.

The Workshop was to teach research chemists sample collection, sample preparations, sample analysis for pesticide residues and heavy metals. It was also intended to generate teaching materials for university teachers.

The methods used were through practical demonstrations and lectures followed by a visit to a local Lake area where soil and water samples were tested for pesticide heavy metal residues.

Chemists from universities in Burundi, Ethiopia, Lesotho, Kenya, Uganda and the Sudan attended the Workshop which was held with support from UNESCO. For the next Workshop chemists from government laboratories will be invited to attend.

Contact address: Environmental Chemistry Network, Chemistry Department., University of Nairobi, P.O. Box 30197, Nairobi, Kenya.

Addresses of Funding Agencies.

In EE Switchboard No. 2, March/April 1978, addresses of some funding agencies were not available for the article 'Choosing a Funding Agency'. The following are the addresses:

Scholl(The Dr.) Foundation
111 West Washington St.,
Suite 2137,
Chicago 60602,
U.S.A.
Attn: James P. Economos.

Polaroid Foundation, Inc.,
750 Main St.,
Cambridge 02139,
Mass. U.S.A.
Attn: Charles E. Zerwekh, Jr.

Clark (The Edna McConnell)
Foundation,
250 Park Ave. Room 900,
New York, 10017,
U.S.A.
Attn: Mrs. Patricia Carry
Stewart.

Compton Foundation,
c/o Randolph P. Compton
Ten Hanover Square,
New York 10005,
U.S.A.
Attn: Randolph P. Compton.

Lilly Endowment Inc.,
2801 North Meridan Street,
Indianapolis 46208,
Indiana, U.S.A.
Attn: Landrum R. Bolling.

Rockefellers Brothers Fund,
30 Rockefeller Plaza,
New York 10020,
U.S.A.
Attn: Russel A. Phillips.

HOUSING PROBLEM FOR YOUNG PEOPLE

At a Workshop held early this year under the auspices of the World Young Women's Christian Association, a statement was made drawing attention to the need for youth groups to examine the

situation of housing as it affects youth. This year both UNEP and the Environment Liaison Centre will be making a special effort to survey activities in several priority areas, including human settlements, to report to UNEP's Governing Council VII in 1979. The human settlements needs of especially vulnerable groups such as youth are sometimes overlooked and the Workshop drew attention to this:

Outline of action for youth organization

Youth organizations should make themselves more aware of the problem of housing for young people, and should ensure that local and central government authorities are responsive also to their particular needs, in those countries where it does appear.

In addition, wherever this does not happen, youth organisations should examine national legislation as regards housing for youth and bring the legislative defects to the attention of the relevant authorities.

We suggest, that, in view of our considerable range of different experiences and projects we should disseminate their results and through action-research experiment in other localities with similar ideas. For example, the Boy Scout survey of empty housing in London, the Builders Brigades in Botswana, self-managing housing schemes in Yugoslavia, co-operative projects in Hungary and the Young Christian Democrats Guatemala rural housing projects are 5 precedents, which in our view could be repeated elsewhere, with a view to understand their effectiveness in other locations. These types of projects could be included within a "casebook" which GIM could prepare and disseminate to other interested organizations. This would assist the testing of projects and subsequently researching their applicability in other parts of the world.

Youth organizations should multiply their efforts to focus on the area of youth and housing through workshops, seminars, exhibitions, conferences and research projects. The increased experience and knowledge of Housing action for, with or by young people should be used to contribute to the discussions of the issues arising from different views of the role of housing in social and economic development and the different attitudes to housing technology and

management. This is necessary for substantive contributions to the development and implementation of effective government policies.

Contact address: Brigitte Lacroix, World YWCA, 37, Quai Wilson, 1201 Geneva, Switzerland.

COUNTRY NOTES

U.S.A. - The 1978 National Leadership Conference in Environmental Education was held in Washington DC, USA, from 28 - 30 March. The purpose of the meeting was to provide a detailed report of the Intergovernmental Conference on Environmental Education at Tbilisi (Oct. 1977) and its recommendations, and to develop an action plan to implement those recommendations.

In preparation for the conference the planning committee worked on a 'National Strategy for EE'. This was discussed at the conference and will be written up in the form of a report.

Information on the conference is reported in the newsletter 'The Alliance Exchange' published by *The Alliance for Environmental Education* and edited by James L. Aldrich. The address is: Massachusetts Audubon Society, Lincoln, Massachusetts 01773, USA.

Turkey - The Government of Turkey has recently taken steps to improve its work in the environment by establishing a new environmental organization in the Prime Minister's office. Dr. Faruk Sukan, Deputy Prime Minister, is in charge. As part of the Government effort a widespread public campaign was held and in response various non-governmental organizations also took initiatives to improve the public environmental awareness. An important development was the establishment of a new non-governmental organisation - *The Turkish Environmental Foundation*. The Chairman of this new NGO is Prof. Necmi Sonmez, and the Secretary-General is Mr. Ural Engin.

Contact address: C/O Turkish Development Foundation, Kenredy Caddesi 33/7, Ankara, Turkey.

MEETINGS - JULY TO OCTOBER 1978

This space is to alert you to meetings taking place concerning environmental issues. We welcome news of your meetings whether they are local, national or international in scope.

It is very difficult to get 'EE Switchboard' to each address on our mailing list in time for adequate notice of all the meetings. Our mail, even by air, has been known to take months to reach some recipients (and at times it has disappeared completely). In the case of each meeting, a contact address is given and if you are interested in the outcome of any particular meeting you can follow it up by using the contact address.

July 6 - 8

The Second "Solar Household" Exhibition
Held: Campus West Exhibition Centre,
Welwyn Garden City, Herts, England.

July 3 - 14

Water Resources and Land
Use Planning
Held: Universite Catholique de Louvain,
Louvain-la-Neuve, Belgium.
Contact: P. Laconte, Expansion Dept.,
Universite Catholique de Louvain,
13, Ave. G. Lemaitre, B-1348,
Louvain-la-Neuve, Belgium.
Telephone: (010) 41818 Ext. 2005.

July 10 - 15

Energy and Community Development,
Held: Athens, Greece
Contact: Environment Design Company,
c/o H.P.O.; 36 Voukourestiou Str, Athens
136, Greece.

August 2 - 13

23rd General Assembly of the International
Youth Federation for Environmental Studies
and Conservation,
Held: Lage Vuursche,
Netherlands
Contact: IYF, Klostermolle, Klostermollevej
48, DK-8660, Skanderborg, Denmark.

August 17 - 21

Nature in the Gulf Island, Man and Sea.
The Canadian Nature Federation Conference
1978
Held: University of Prince Edward Island,
Charlottetown, Prince Edward Island,
Canada.
Contact: CNF Conference 1978, P.O. Box
2346, Charlottetown, Prince Edward
Island, CIA 8C1, Canada.

September 1 - 3

Energy and the Relevance and Use of the
Local Environment as a Resource for
Teaching Material
Held: Northumberland College of Education
Ponteland, NR, Newcastle, Northumberland,
U.K.
Contact: National Assoc. for Environmental
Education Conference Secretary, Miss J.A.
Palmer, 22 Hawthornden Court, Penns Lane,
Sutton Coldfield, West Midlands, B76 8JT,
U.K.

September 3 - 4

National Symposium on Low Production Forests
as a result of Environmental Deterioration

Held: Warsaw, Poland
Contact: Prof. Dr. F. Krzysik, Polskie
Towarzystwo Lesne (Polish Forest Society)
ul Wery Kostrzewy 3, Warszawa, Poland.

September 3 - 23

Environmental Impact Assessment and
Development Course
Held: Aberdeen, Scotland
Contact: Monitoring and Assessment Research
Centre, The Octagon Bldg, 459 A
Fulham Rd, London SW10 0QX. U.K.

September 6 - 12

Primary Health Care Conference
Held: Alma-Ata, USSR,
Contact: WHO, Ave Appia, 1211 Geneva 27,
Switzerland.

September 10 - 16

2nd International Congress of Ecology,
Held: Jerusalem, Israel
Contact: Prof. M. Evenari, Dept. of Botany,
Hebrew Univ. of Jerusalem, Jerusalem,
Israel.

September 16 - 19

Communication and Cultural Identity in an
Interdependent World. World Future Research
Conference VI,
Held: Cairo, Egypt
Contact: Dr. Eleonora Masini, Casella Post-
ale 6203, Roma-Prati, Italy.
Note: Discussion on the Future of Commu-
nication and of the media in the light of
their impact on cultural identity.
A particular concern will be the way in
which massive information transfer tends
to put developing countries at the mercy
of the developed ones. Ways of outlining
alternative visions of the world in terms
of preserving a diversity of cultures yet
achieving greater symbiosis and solidarity
will be examined.

September 19 - 23

Europe's Role in World Development. General
conference of the European Association of
Development Research and Training Institutes
Held: Milan, Italy
Contact: Prof. Sergio Bortolani, FinAfrica,
Via San Vigilio 10, Milan, Italy.
Tel: (02) 81 31 170/81 31 988. Cable:
CARIPL0. Telex: 31280 (FINAFRICA)

September 23 - 26

Ecology and Development
Held: New Delhi, India
Contact: Indian Environment Society,
c/o Desh Bandhu, 8 Darya Ganj, New Delhi-
110002, India. Telephone: 278764.

September

FAO African Regional Conference
Held: Arusha Tanzania
Contact: Mr. Hernan Santa Cruz, Food and
Agricultural Organization, Via delle
Terme di Caracalla, 00100 Rome, Italy.

September

WHO Primary Health Care, International
Conference
Held: Alma Ata, USSR.
Contact: World Health Organization, Ave
Appia 1211 Geneva 27, Switzerland.

THE ENVIRONMENT AND DEVELOPMENT GAME

Introduction: The game was developed by Delmar Blasco and Serena Zwangobani of the Environment Liaison Centre and drawn by Annie Fraser. It is intended to stimulate discussion of environment and development issues in developing countries. The idea was suggested by a game developed by the Swedish Mission Association called the 'Ecuador Game'. You are welcome to reproduce any or all of the game as long as you acknowledge the Environment Liaison Centre, Nairobi, Kenya. Where reproduction is done for commercial purposes prior agreement must be obtained from the Environment Liaison Centre.

Equipment Needed: Apart from the game sheet enclosed, you will need one 'moving piece' for each player such as a small stone, bottle-top or bean, and one dice.

The Rules: Each player throws the dice once before the game to determine whether they will follow the rules for the City Boy or the Country Boy. Players throwing 1 and 3 follow the City Boy rules, players throwing 2, 4, 5 and 6 follow the Country Boy rules. From then on the players take turns consecutively in throwing the dice once each time then moving according to the number shown on the dice. When a player stops on a shaded circle he applies the rules for the corresponding number (either the set of rules for the City Boy or those for the Country Boy). The game continues until everyone has followed the whole route on the game sheet.

RULES : These rules apply to the numbers in shaded circles which are the numbers 4, 7, 10, 12, 14, 19, 22, 26, 28, 29, 32, 35, 40, 44, 48, 51, 53, 56, 58, 60.

City Boy

4. The servant is preparing the breakfast and you are still sound asleep. Sweet dreams. Move to 5.
7. The clock rings! It is already light, I must get out of the warm bed and turn on the heating. The servant is preparing my bath. Wait one turn.
10. I am ready for school fast - bathed, dressed and have eaten. Thank goodness the servant did not forget to clean my shoes, Move quickly to 11. Your driver is waiting.
12. What a traffic jam this morning and everyone is blowing their horns. The noise is terrible! Please driver wind up the window there are so many fumes. Miss one turn.
14. I would much rather cycle than drive in this traffic, but mother forbids it because the roads are not safe for bicycles. Go to 16, you get out of the traffic.
19. Such a heavy morning at school - maths, physics and literature. Thank goodness it is already time for swimming. Move fast to 20 to change clothes.
22. After all that sport I am really hungry for lunch. Meat, vegetables and rice, couldn't be better. Move to 23.
26. The teacher took us on a visit to an insecticide factory and we were warned that it could be very dangerous to go in some sections. But I wonder how it affects the workers there? Move to 27.
28. Driver take me down town to the bookshop. I need a book on building model aeroplanes. The book costs a lot but I need it badly. Wait one turn.
29. I will go and see my father at the National Board of Nuclear Energy to get some extra money... He was busy but his secretary gave me the money. Move quickly to 30 before the shop closes.
32. I bought the book and want to show it to my friend on the way home. But I am not allowed to because my private teacher is waiting at home for me. Move to 33.
35. My driver is sleeping. Hey driver let's go. I have finished shopping. Move comfortably to 36.
40. I have finished my extra lessons, now for afternoon snack. Move to 41 while you walk the dog in the park.

Country Boy

4. It is still dark and cold but the cock is crowing. I must get up! Let's hope the water in the bucket outside is not too cold for my wash. Wait one turn.
7. I washed my trousers last night and they are still damp. Well, I can't go to work without trousers and now I feel even colder. Go back to 6.
10. Bother! The goats have broken the fence and are eating the vegetables. To get them in again will take ages. No time for breakfast. Go back to 8.
12. I have to run to meet my friends who are walking to the city. I just made it, it is not yet 7.30 a.m. Good running, go to 13.
14. Walking by the road we get covered with dust and it is really dangerous sometimes keeping out of the way of the traffic. Go back to 13.
19. After pay-day there are such a lot of shoes to shine, business is good. But miss a turn while you hide from the police, shoe-shining without a licence is illegal.
22. Now it is lunch time for the office workers and a good time for shoe-shining. Hey friend! I just got a good tip, let's share a coke. Move to 23.
26. The middle of afternoon is quiet for business. If there were still fish in the river I could go fishing. Stay here for one turn while you doze.
28. It has been a long day and I would love some food with my tea but I had better save money as my brother is badly in need of school books. Move to 30.
29. Lucky I did not go to the river because my father was looking for me. He needed money to take a bus to a factory where he was told there might be a job, Move to 30.
32. Oh good! My friends are already on the bus. It is so crowded they have to hang on to me in case I fall while standing on the steps. It is dangerous. Go back to 30.
35. The bus broke down and I had to walk the last two kilometres. I wish I could buy new shoes, these ones are worn out. Wait one turn.
40. I must go to look for firewood before the sun sets. My young brothers help to find and carry the wood. Go round the A to G circle before moving on as it is hard to find firewood.

44. This is the worst part of the day doing homework from school. Move to 45, you do it quickly.
48. At last mother comes home from her committee meeting and we can start the evening meal. It is my favourite food tonight - chicken, and for sweets some fruit and icecream. Move to 49.
51. I will phone a friend and tell him about my new book then watch TV. Wait one turn while you relax.
53. I saw a new invention on TV which used wind energy to make electricity. Very interesting, although I don't see that it was much use to me. Wait one turn.
56. My father came home and said that the crime story on TV was too violent for me to watch. So go to 57 and read your new book.
58. It seems that grand-mother is ill and father has called the doctor. Go to 59 the doctor arrives quickly.
60. Father is returning and I had better turn out the light for sleep, but I can still hear the noise of city outside. Move to the end, your day is complete.
44. I must bring the goats in with my younger brother. They have been drinking at the stream. How beautiful it is in the early evening. Move to 45.
48. It is nice to sit down with all eight of our family for beans, vegetables and corn. But I am so tired my appetite is small. Wait one turn.
51. I don't know if I can stay awake through my literacy class, but I would hate to miss the class and seeing my friends. Wait one turn while you rest.
53. In the literacy class we learned words we use in talking about growing nutritious food. I am glad I went. Move to 54.
56. It is a long walk back in the dark, cold night but with friends it is fun. Move to 57.
58. Mother is sick tonight but we have to wait until tomorrow to get her to hospital. I hope the herbs she took will help. Move to 59.
60. I can still hear my parents in the room discussing where my father can look for work tomorrow. But the candle has finished and in the dark it is not hard to sleep. Move to the end, your hard day is over.

October 3 - 5

Second International Symposium on Wind Energy Systems
Held: Royal Tropical Institute, Amsterdam, Netherlands

Contact: Organising Secretary, 2nd IWES, BHRA Fluid Engineering, Cranfield, Bedford, MK43 OAJ England, U.K.
Tel: 750422

Note: Subjects to be covered are horizontal axis turbines, vertical axis turbines, wind energy concentrators, siting and effect of wind regime and structure, application to community service and their use in networks, storage ancillary equipment, environmental & town and country planning impacts.

October 9 - 14

African Regional Meeting on Human Settlements Finance and Management
Held: Nairobi, Kenya.

Contact: UN Habitat & Human Settlements Foundation, P.O. Box 30552, Nairobi, Kenya.

October 20 - 25

Fifth International Clean Air Congress
Held: Buenos Aires, Argentina

Contact: Alsina 1535 - 9º P. - OF903, 1088 Buenos Aires, Argentina

Convenors: International Union of Air Pollution Prevention Associations.

October 21 - 22

Energy and the Environment - Malaysian Options
Held: Kuala Lumpur, Petaling Jaya, Malaysia.
Contact: Secretary, Energy Seminar, EPSM, 127 Jln. 17/14, Petaling Jaya, Selangor.

October 28

You and the Environment
Held: Kuching, Sarawak, Malaysia.
Contact: Mr. Gurmit Singh, Environmental Protection Society, 127 Jalan 17/14 Petaling Jaya, Selangor, Malaysia.

October 29

Seminar on the Environment (tentative)
Held: Sibú, Sarawak, Malaysia.
Contact: Mr. Gurmit Singh, Environmental Protection Society, 127 Jalan 17/14, Pelaling Jaya, Selangor, Malaysia.

October 30

Forum cum Exhibition on the Environment.
Held: Miri, Sarawak, Malaysia.
Contact: Mr. Gurmit Singh, Environmental Protection Society, 127 Jalan 17/14, Petaling Jaya, Selangor, Malaysia.

PROYECTO EXPERIMENTAL EN BRASIL

El Centro de Entrenamiento para Profesores de Ciencias de San Pablo, Brasil, ha conducido un proyecto experimental denominado "Ciencias Ambientales para el Primer Grado" (refiriéndose a la primera etapa de educación formal en Brasil)

En su fase experimental, los materiales producidos fueron utilizados por 7.719 alumnos de las escuelas de la red oficial.

Para cada una de las dos primeras series se produjo un Manual del Profesor y un Libro del Alumno. Este último integrado por las ilustraciones destinadas a los trabajos de los equipos.

Para la tercera y cuarta serie hay también Manuales del Profesor y Libros del Alumno, estando cada serie constituida por cuatro unidades. Para las cuatro series restantes se produjeron Módulos para el alumno y Manuales del Profesor.

El proyecto "Ciencias Ambientales" intenta mostrar al alumno de la escuela primaria las relaciones entre el hombre y el ambiente, las consecuencias de esas relaciones y las responsabilidades de cada uno.

Para alcanzar dicho objetivo se incluyeron los siguientes temas, a ser investigados a lo largo del proyecto:

1. Los seres vivos se relacionan entre sí y con el ambiente de distintas maneras y de esas relaciones surge un equilibrio ecológico. El hombre, protegiendo las especies que le son útiles y combatiendo las que considera perjudiciales, altera ese equilibrio.
2. Las actividades humanas modifican el suelo, aire y agua, ya sea alterando la proporción de sus componentes, sea introduciendo nuevos materiales en su composición. Esas modificaciones perjudican a las plantas, a los animales y al propio hombre.
3. El hombre, como otros animales, tiene dos problemas fundamentales: encontrar alimento y abrigo. Gracias a su capacidad de aprender y transmitir conocimientos, desarrolla y perfecciona técnicas e instrumentos para resolver esos problemas. Con ello interfiere profunda y rápidamente en el ambiente. Como consecuencia modifican también las costumbres de las poblaciones humanas.
4. La agricultura y el desarrollo industrial modificaron profundamente la vida del hombre y sus relaciones con el ambiente. Una de las principales consecuencias fue el extraordinario crecimiento de la población humana. Como consecuencia de ello fue necesario ampliar las áreas destinadas al cultivo, aumentar el rendimiento de la producción de alimentos y consumir cada vez más recursos de la tierra.
5. El crecimiento poblacional y el desarrollo tecnológico traen como consecuencia el agotamiento de los recursos naturales. Diversas soluciones deben ser encontradas para detener ese agotamiento.
6. Las ciudades son sistemas ecológicos creados por el hombre, las que crean problemas para él mismo: transporte, recreación, saneamiento básico, acumulación de basura, polución, prestación de servicios. Además de ello, las ciudades interfieren drásticamente en los ecosistemas naturales.

Todos estos temas son presentados tratando de evitar deformaciones, omisiones o exageraciones peligrosas, pero transmiten las informaciones necesarias para que los alumnos lleguen a una conclusión y puedan emitir juicios de valor.

De esta manera se pretende lograr que el alumno:

1. Reconozca la existencia de una gran diversidad de seres vivos.
2. Reconozca, como integrante de su ambiente, al aire, el agua, el suelo y los demás seres vivos.

3. Identifique varios tipos de relaciones entre el hombre, las plantas y los otros animales.
4. Reconozca que todos los hombres tienen las mismas necesidades básicas, aún cuando vivan en ambientes diferentes.
5. Reconozca que el hombre se organiza para usar los recursos del ambiente.
6. Comprenda que la conservación de la naturaleza es esencial para la sobrevivencia de los seres vivos.
7. Se concientice de su papel en la conservación del ambiente.
8. Evalúe el impacto del hombre, a través de sus acciones, sobre el ambiente.
9. Proponga soluciones para los problemas ambientales.
10. Participe de los problemas de la comunidad para que dichas soluciones se implementen.

Para mayor información sobre los resultados del proyecto, que está en proceso de ser evaluado, dirigirse a: Luiz Carlos de Barros Rua Gaspar Lourenco 65 - Ap. 42, CEPOSTAL 04107 - V. Mariana, Sao Paulo (Capital) Brasil.

Abstract: *The Science Teachers' Training Centre* of Sao Paulo, Brazil, has undertaken a pilot project on environmental science for primary schools. In implementing this project they produced 12 pupils books and 6 teachers guides covering the more important aspects of environmental science and including social science factors. The material has been tested through use by 7700 primary pupils in Sao Paulo schools and their teachers and the results of the project are now being evaluated.

The project aimed to show to the children the relationships between men and the environment and the consequences of these relationships. The children, through participating in the project, would be expected to come to an understanding of their responsibility towards one another and the environment.

The books produced for the project are written in Portuguese, however enquiries about them or any other aspect of the project can be made in English and answered in English to the address given below.

Contact address: Luiz Carlos de Barros, Rua Gaspar Lourenco 65 - Ap. 42, Cepostal 04107 - V. Mariana, Sao Paulo (Capital) Brazil.

NGO ENVIRONMENTAL EDUCATION NETWORK

List 3

The following addresses are additions to the network:

AFRICA

Friends World Committee for Consultation, P.O. Box 41946, Nairobi, Kenya.

Att: David D.K. Kikaya

Kenya Institute of Education, P.O. Box 30231, Nairobi, Kenya.

Att: F. K'Opiyo

Kenya Science Teachers College, The Library, P.O. Box 30596, Nairobi, Kenya.

Att: Mr. Musisi

Environmental Pollution Sect., Tropical Pesticides Res. Inst., P.O. Box 1002, Arusha, Tanzania.

Att: Mr. J.L. Ak'habuhaya

ASIA AND THE PACIFIC

Australian Conservation Foundation, 672B Glenferrie Rd., Hawthorn, Victoria 3122, Australia.

Att: Gail Oswell

Canberra & South East Region, Environment Centre Inc., P.O. Box 1875, Canberra City ACT 2601, Australia.

Att: David Allworth

Cloncurry State Primary School, & Secondary Department, P.O. Box 113, Cloncurry 4824, Queensland, Australia.

Att: Ms. M.F. Grieve

Inspect, 324 William St., Melbourne 3000 Victoria, Australia.

Townsville EE Centre, 280 Palmerston St., Vincent, Townsville Qld Australia 4814.

Bombay Civic Trust, Jehangin Art Gallery, 1st Floor, Mahatma Gandhi Rd., Bombay 400023, India.

Bose Institute, 93/1 Acharya Prafulla Chandia Rd., Calcutta 700009, India.

Att: Dr. Sunirmal Chanda

Africa Information Centre, Ad Hoc Committee, P.O. Box 9716, Wellington, New Zealand.

Att: Secretary.

Friends of the Earth, P.O. Box 39 - 065, West Auckland, New Zealand.

Att: Michael Bland

Environment Dept.,
P.O. Box 5474,
Boroka,
Papua New Guinea.

Att: Peter Ellyard, Director

University of Papua New Guinea,
Biology,
P.O. Box 4820,
Port Moresby,
Papua New Guinea.

Att: Lance Hill

International Planned Parenthood Federation,
P.O. Box 772 Colombo 7,
Sri Lanka.

Att: Miss Manel Fonseka

Environmental Research Centre,
Taichung,
Taiwan 400.

Att: Lin Chun-i.

Institute of Development Studies,
The Library,
University of Sussex,
Andrew Cohen Bldg,
Falmer Brighton,
BN1 9RE,
U.K.

International Tree Crops Institute,
Convent Lane,
Bocking, Braintree,
Essex,
U.K.

Att: Mr. A. Grainger

Soil Association,
Walnut Tree Manor,
Haughley, Stowmarket-
Suffolk IP14 3RS,
U.K.

Att: J. Griffith-Jones

LATIN AMERICA

EUROPE

International Organization of Consumers Unions,
9 Emmastraat,
2595 EG The Hague,
Netherlands.

Att: Jarmila Lentink

The Editors,
'Alternative',
Egedesgt 1,
Oslo 1,
Norway.

Polish Red Cross,
Warszawa,
ul. Mokotowska 14,
Poland.

Research Inst. for Soil Science and
Agrochemistry,
7000 Bucuresti BD,
Marasti nr. 61,
Romania.

Att: Corneliu Rauta, (Director)

World University Service International,
5 Chemin des Iris,
1216 Geneva (Cointrin),
Switzerland.

Att: Richard Taylor

Committee for Environmental Conservation
(CoEnCo),
29 Greville St.,
London EC1 8AX,
U.K.

Att: Bridget Hughes

El Centro de Entrenamiento para
Profesores de Ciencias,
Rua Gaspar Lourenco 65 - A.P. 42,
Cepostal 04107 - V. Mariana,
Sao Paulo (Capital),
Brazil.

Project Environmental Sciences for Primary
School,
(Projeto Ciencias Ambientais para o Primeiro
Grau),
Rua Gaspar Lourenco 65 - Av. 42
CESPOSTAL 04107 - V. Mariana,
Sao Paulo (SP),
Brazil.

Att: Luiz Carlos de Barros

Grupo Ecologico,
Universidad del Tolima,
Aereo 1013,
Ibague,
Colombia S.A.

Sociedad Colombiana de Ecologia,
Apartado Postal 8674,
Bogota - Colombia.

Att: Eduardo Plata Rodriguez.

Escuela de Ciencias Ambientales,
Universidad Nacional
Heredia
Costa Rica.

Att: Prof.M.E. Zuniga.

Grupo Ecologico,
Manuel Toribio Ureta 320,
Balcancillo - La Victoria
Lima 13,
Peru.

Att: J.C. Fernandez

Centro para el Mejoramiento de la Ensenanza,
de las Ciencias,
Ed. Banco de los Trabajadores,
Av. Principal de los Ruises, cruce con Av.,
Miranda
Caracas
Venezuela

Att: Prof. Estrella Benain

FUDENA
Apartado de Correo 70376,
Caracas 107,
Venezuela.

Att: G. Cuella

Soc. Conservacionista Audubon de Venezuela
Apartado 80450
Caracas 108,
Venezuela.

Att: C. de Blohu

Sociedad Conservacionista Aragua
Apartado 5115 - El Limon,
Maracay,
Venezuela.

Att: Prof. Yepez Tamayo

NORTH AMERICA

Centre for Environmental Education,
2100 M St. N.W.,
Washington DC, 20037,
USA.

Att: M.J. Brenne

Centre for Environmental Information,
33 South Washington St.,
Rochester, NY 14608,
USA.

Att: Ms. E. Thorndike

Department of Energy,
Office of Public Affairs,
Washington, DC 20461,
USA.

Att: Editor 'Information'

Education & Publications Branch,
US Dept. of Agriculture,
P.O. Box 2890,
Washington DC, 20013,
USA.

Att: Walter E. Jeske

Environmental Studies Dept.,
Montclair State College,
New Jersey Sch. of Conservation,
Branchville NJ 07826,
USA.

Att: Dr. John J. Kirk

Jean-Michel Cousteau Inst.,
P.O. Drawer CC,
Harbour Town,
Hilton Head Is.,
South Carolina 29928,
USA.

Att: Francis R. Brenot

League of Women Voters,
1730 M. St. NW,
Washington DC, 20036,
USA.

Natural Resources Defence Council Inc.,
917 15th Street NW,
Washington DC 20005,
USA.

Att: Jacob Scherr

WESTERN ASIA

Turkish Environmental Foundation,
c/o Turkish Development Foundation,
Kennedy Caddesi 33/7,
Ankara,
Turkey.

Att: Prof. Necmi Sonmez

CORRECTIONS TO PREVIOUS LISTS

AFRICA

Algeria: the address for Comite National pour l'Environnement is incomplete and should be deleted.

Kenya: Afrolit Society, enquiries should be directed to Keith K. Kanyogonya rather than Mary Opiyo.

EUROPE

Belgium: the address given for the International Committee for Research & Study of Environmental Factors is incorrect and should be deleted.

Switzerland the previous address given for the Foundation for Human Settlements and Public Affairs was incorrect. The correct address is GLARNISCHSTRASSE 35, DUBENDOLF, CH-8600, SWITZERLAND.

Att: U.P. Schmidt

United Kingdom the Environment Liaison Centre no longer has a member of staff at the International Institute for Environment and Development (IIED). The address for IIED is the same but the contact person is Richard Sandbrook.

PUBLICATIONS

A. Periodicals

'Connect' is the UNESCO-UNEP Environmental Education Newsletter, published bimonthly. The latest issue is Volume III, No.2 for May 1978. Connect is published in Arabic, English, French, Russian and Spanish and is free. Enquiries to: 'Connect', UNESCO, 7 place de Fontenoy, 75700 Paris, France.

'IRPTC Bulletin' is the newsletter published by the UNEP International Register of Potentially Toxic Chemicals and issued twice a year. It carries news of the progress of IRPTC, news from National Correspondents (who are the communication points between IRPTC and Governments), information on chemicals causing concern and any new regulations concerning chemicals. The first issue was in December 1977, and it is issued free.

One of the few controversies which arose at the recent Governing Council meeting of UNEP in May was over the question of whether NGOs had the right to use the IRPTC. After discussions on the floor of the committee and further informal discussions in the corridors the question was resolved by an agreement that NGOs could use the IRPTC, but - they must be NGOs of 'status'. Our contact with IRPTC officials suggests that they are open to NGOs and are most willing to assist them when asked. However, the Register is not meant as an information source as such, but designed to facilitate access to existing data on effects of chemicals on man and his environment. So far there are about 30 countries who have nominated National Correspondents - contacts within countries who are familiar with the Register and more accessible for their nationals than the UNEP/IRPTC office which is in Geneva.

Enquiries to: The Director, UNEP/IRPTC, c/o World Health Organization, Room L 32, Avenue Appia, 1211 Geneva 27, Switzerland.

'Nuclear Times' produced by *Friends of the Earth Limited*, London, is a publication in the format of a newspaper giving current information on nuclear power. Friends of the Earth Limited, 9 Poland St, London W1V 3DG, England.

'Report to Governments' is issued every two months by UNEP, the latest being that issued for July 1978. It is a newsletter for UNEP to inform Governments

very briefly on what UNEP is doing. The Report is not usually sent to NGOs, however, it was agreed at Governing Council VI in May this year that NGOs who wanted to receive it could request it. It is free. The bulk of the Report is taken up with details of projects which UNEP is providing funds for, in part or whole. Some of the projects are in the area of environmental education providing details of training courses and tours. It also contains information on meetings, focuses on particular UNEP activities and reports on the current state of the Fund of UNEP.

Enquiries to: The Executive Director, UNEP, P.O. Box 30552, Nairobi, Kenya.

'Urban Edge' is a six page monthly newsletter designed to serve as a clearing house for practical experience in low cost service delivery and employment creation projects in developing countries.

Each issue specializes in a particular topic for example this year there have been issues on urban women of the third world, appropriate technology for urban areas, urban transit and sickness among the urban poor. The newsletter is now available in French and Spanish starting with the April 1978 issue and can be ordered free from the address below.

Enquiries to: *Council for International Urban Liaison*, 818 18th Street, NW, Washington, DC 20006, USA.

B. Other

'Conservation Measures in China' is a booklet published by UNEP in a new series - UNEP Booklet Series, No. 1. The booklet is an attempt to give examples of the Chinese success at relating environmental protection and economic development. The examples were observed on a tour by UNEP officials to China in 1975 and cover, for instance, sand dune fixation, afforestation, shelter belts, ecological management of schistosomiasis, altering mountains and rivers, and methods of using human waste for manure and methane gas. Photographs and clear diagrams are included.

Enquiries to: The Executive Director, UNEP, P.O. Box 30552, Nairobi, Kenya.

'Drawers of Water: Domestic Water Use in East Africa' is a book resulting from research carried out in East Africa on a range of sites from remote

subsistence farms in the Uganda highlands to slums and luxurious dwellings in East African cities. The study examined the systems of water use with a view to finding ways to improve water supplies in a manner suitable for particular local needs and at developing country costs. Although there is much detail for those with an academic interest in the subject the book is informative on the level of overall costs to communities of poor water supplies as well as giving information on the cost to individuals of obtaining water in very diverse situations.

An analysis of social costs and of individual decision-making will interest anyone concerned about water supplies for domestic use in developing countries, and would be helpful to NGOs working in this area. The health dimension of water supplies is examined in detail. Co-authored by Gilbert F. White David J. Bradley and Anne U. White, the copy we hold is hard-covered and of 306 pages, published by the University of Chicago Press, 1972.

'Final Report: Intergovernmental Conference on Environmental Education' has now been published by UNESCO. It contains a general report on the conference deliberations and the recommendations made. (101 pages).

Enquiries to: The Director-General, UNESCO, 7 place de Fontenoy, 75700 Paris, France.

'My Nature Study Code' and 'Guidelines to the Preparation of Nature Trails' are two publications of the *Australian Conservation Foundation*. The first is a pamphlet directed at youth reminding them of appropriate behaviour for conservation when in natural areas. It is illustrated with attractive drawings of a young girl and Australian native animals. The guide to preparing nature trails, by Ronda Green, gives practical points on doing this from first to last steps. It also covers points on dealing with some problems which may arise. The book of 100 pages is illustrated with drawings.

Contact: Australian Conservation Foundation, 672B Glenferrie Rd, Hawthorn, Victoria 3122, Australia.

'School Kit: Shishir of Bangladesh' prepared by Ian Guest, this special slide kit for schools is part of a series on children in developing countries, published in 1977, and should be of wide use and interest.

The series is meant for 10 to 15-year olds in industrialized countries and illustrates the lives of children of a similar age in developing countries. In this way it is hoped to bring another country and another culture closer to the children using the kit.

The series is available in French and English and consists of two parts:

Part One: Slide set with commentary. It is the story of a 15-year old boy in the village of Khari Khali. There are 30 coloured slides and a short accompanying text, well adapted to the age group it is addressed to.

Part Two: Teachers' notes. They contain material on the village of Khari Khali itself, and on education, health, land and food in this village. One sheet gives basic facts on Bangladesh, and a nicely coloured map of Bangladesh shows the position of Khari Khali. Also added is a copy of a magazine, called Shishu Diganta, a bi-lingual publication (English and Bengale), which can also be obtained separately from the Communications/Information Service, UNICEF, Dacca.

The cost of the kit is US\$3.50 and it is obtainable from UNICEF, Palais des Nations CH 1211 Geneva, Switzerland.

'Teaching Conservation in Developing Nations'. A practical manual for teaching conservation in developing countries has been jointly published by the *National Audubon Society*, an American environmental organisation, and the United States Peace Corps. The manual of 262 pages is specifically designed to meet the need for environmental information and education, as environmental factors increasingly are recognized as critical to the planning of sound development programs. Included are guidelines on how to establish and operate an environmental education centre, and how environmental education can be incorporated into existing programs at schools, health centres, agricultural extension centres and other community services. Diagrams and drawings are used to illustrate the book. Copies are available from the National Audubon Society, 950 Third Ave, New York, New York 10022, USA. The manual costs US\$1.50 postage included.

'Wealth from Waste'. Turning waste to creative uses is the subject of a 27 page booklet produced by the *Leadership Training Service* of Calcutta and published by the *Lions Club of Hastings*. The booklet was distributed to the public for World Environment Day 1978.

Within the first few pages of the booklet practical

suggestions are given for utilizing waste materials. Suggestions are also made on how to generate good ideas and then how to put them to work. To prove that it is possible to turn waste to wealth, the last few pages of the booklet give examples of waste materials which were utilized.

Enquiries to: Leadership Training Service, Wealth from Waste Cell, c/o Town Unit, Loreto House, 7 Middleton Row, Calcutta-700071, India; and Lions Club of Hastings, 17 Justice Dwarkanath Rd, Calcutta - 700020, India.

'Toward an Action Plan: A Report on the Tbilisi Conference on Environmental Education' is a concise

report produced by the Federal Interagency Committee on Education, US Department of Health, Education and Welfare and available for sale from the address given below. In thirteen pages of text and two appendices the Conference, its recommendations and the implications for United States and international EE efforts are covered.

Enquiries to: Federal Interagency Committee on Education, Room 313-H, 200 Independence Ave., S.W., Washington DC, 20021. USA.

	Page
Note from the Editor	1
In Columbia—Taking Environmental Education to the People	1
Environmental Education Through the Media	3
Any Ideas of Environmental Education for Elephants?	3
Workshops for High School and University Teachers	3
Omission in EE Switchboard 2	4
Youth Movements in Zimbabwe	4
Environmental Chemistry	4
Addresses of Funding Agencies	5
Housing Problem for Young People	5
Country Notes	5
Meetings July to October 1978	6
Proyecto Experimental En Brasil	7
NGO Environmental Education Network	8
Publications	11

Enclosure—The Environment and Development Game and Rules

CLIPPINGS FROM PUBLICATIONS ABOUT THIS PROJECT

For the preservation and development of the environment

CARIBBEAN CONSERVATION NEWS

VOL. 1 NO. 12, 1 MARCH 1978

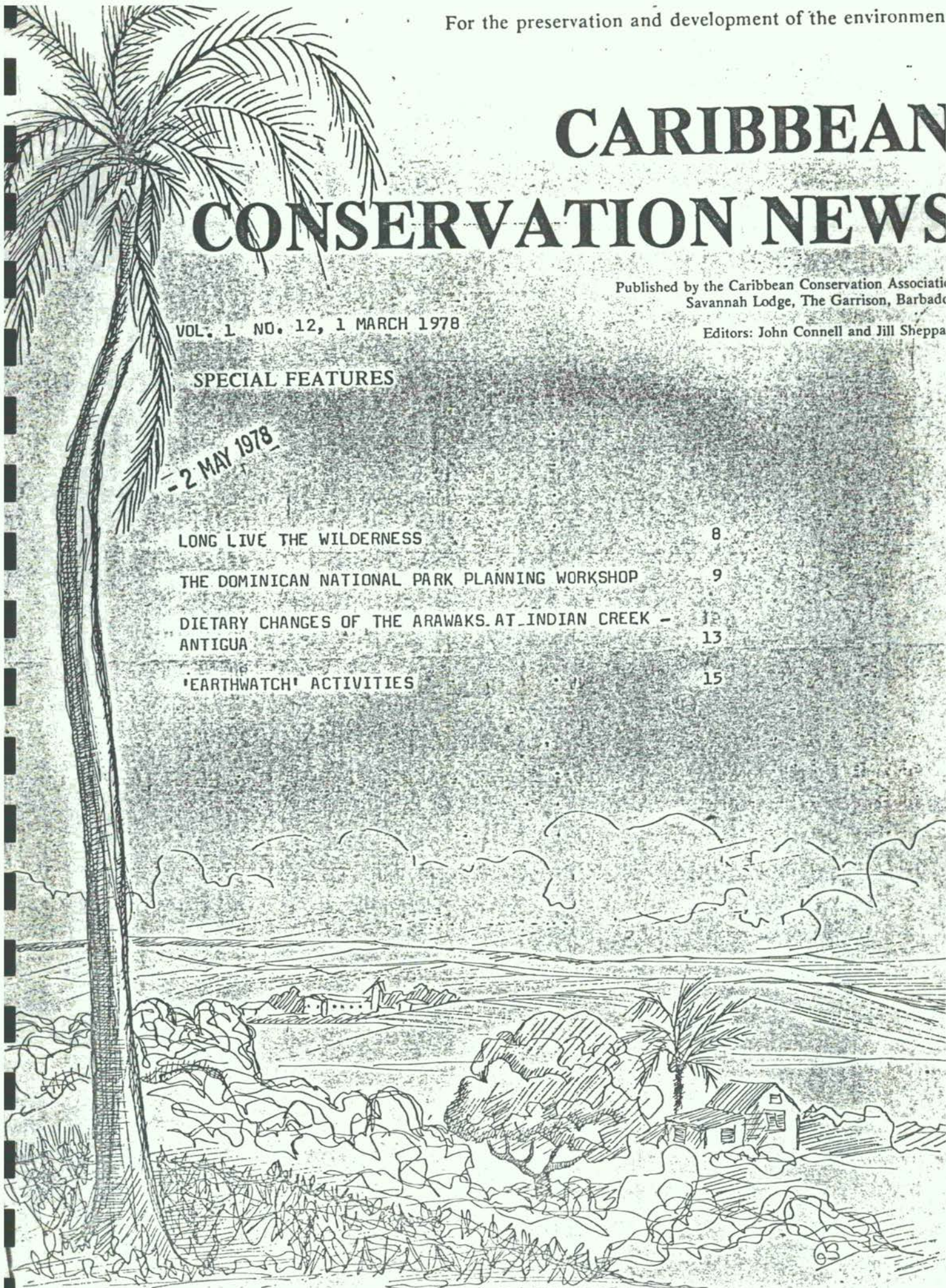
Published by the Caribbean Conservation Association
Savannah Lodge, The Garrison, Barbados

Editors: John Connell and Jill Sheppa

SPECIAL FEATURES

- 2 MAY 1978

LONG LIVE THE WILDERNESS	8
THE DOMINICAN NATIONAL PARK PLANNING WORKSHOP	9
DIETARY CHANGES OF THE ARAWAKS AT INDIAN CREEK - ANTIGUA	12 13
'EARTHWATCH' ACTIVITIES	15



CCA NEWS

Finances and Membership

While there is no news of any new Government Members subscriptions from existing Sponsoring, Full and Associate Members are trickling in slowly. It is to be hoped that those who have not yet paid up will do so as quickly as possible; it is hoped also that some of those people who are on our Mailing List, and therefore receive the 'News' free, will consider becoming members. The 'News' not only costs time and money in terms of its production, but also of its postage, and puts a general strain and stress on the office at the time it is being sent out - as anyone who has called in at that particular time of the quarter will have realised.

Projects in Progress

Activities in connection with the development of the Environmental Education Programme are at present being concentrated in two directions, both of which lead back to the Environmental Liaison Centre in Nairobi. This is a non-governmental organisation which carries out certain projects on behalf of the United Nations Environment Programme (UNEP) and which was responsible for arranging for the participation of certain non-governmental organisations, including the CCA, in the Intergovernmental Conference on Environmental Education which took place in Tbilisi in October last year and organised the Workshop in Geneva which immediately followed it. Out of the latter came certain proposals for the institutionalisation of assistance to non-governmental organisations engaged in the work of environmental education in the form of some kind of central agency which would provide services on both an international and a regional basis. The ELC is now working on the details of such a system and the CCA, in providing comments on their proposals, in casting some doubt on the suitability of the ELC itself to take on the responsibilities of such a central organisation and, particularly, emphasising the necessity of providing regional organisations with the means of assessing their needs and making their own recommendations for the type of assistance which they require. Furthermore, the CCA is taking exception to the suggestion that the 'network' proposed for the Caribbean should be operated from Costa Rica.

The other activity in which the Environment Liaison Centre is involved is that of organising activities in connection with World Environment Day. This date was fixed at the United Nations Conference on the Human Environment, which took place in Stockholm in 1972, as one on which every effort would be made to highlight, for the benefit of the general public, particularly significant aspects of the world's environmental problems. Last year the CCA took the opportunity offered by World Environment Day to attempt to broaden the base of its environmental education by various means, including that of arranging for the circulation

of appropriate sermon notes, with the assistance of the Caribbean Council of Churches, to a wide variety of churches in the region. This year the CCA has plans for extending the programme still further but, in order to do this effectively it is, inevitably, dependent on the willingness of its member organisations to take action. Up to the present the only positive plans for action have come from Guadeloupe; these are described elsewhere in the 'News'. The assistance offered by the ELC takes the form of resource material, which could be of use if received in time; it is also despatching a number of advisers to assist non-governmental organisations in formulating their ideas; the CCA has indicated that, in this particular context, financial rather than technical assistance would be of the greatest assistance in mounting the campaign.

UNEP asked to promote Adult literacy at Tbilisi

Mrs. Mary Opiyo, Training Officer with the National Christian Council's ABE, who is now the treasurer of this society, represented Afrolit Society at the UNEP/UNESCO sponsored Inter-governmental Conference on Environmental Education at Tbilisi in the Soviet Union, late last year. She also attended a workshop on Environmental Education in Geneva, from October 28-30.

To enable literacy work to aid people in the fight to save our environment, Mary Opiyo stressed the need for the UNEP to include in their programmes plans for work through adult literacy programmes in Africa and other parts of the world. She explained the work of Afrolit, what it is, what it does and how it can assist governmental and non-governmental organizations to wipe out adult illiteracy in the shortest time possible:

Taking Kenya as an example, at the national level Afrolit works in an integrated effort with the government and other non-governmental agencies such as Christian Council of Kenya (NCKK), FOA/PBFL and others in both material preparation and distribution as well as training of literacy workers.

Literacy volunteers

Mrs. Opiyo told them Afrolit encourages people-orientated development and literacy programmes that are started on a self-help voluntary basis. For example, people in a certain locality or parish church may decide to start a programme of their own on literacy or development. They will also decide to raise funds and pay a local volunteer an honorarium to teach them to read, or other skills.

"We feel that literacy is an important tool, and should, with the agreement of the delegates, be employed in our strategies if we are to educate the illiterate masses on matters concerning the environment", said Mrs Opiyo.



The new CREA officials: Top, left to right, Mr. Baba-Moussa Sidicon, President (Benin); Mr. Jean Gilbert Tchikaya, 2nd Vice-President (Congo). Bottom, Mr. Amadou Kombath, Permanent Secretary (Togo); and Mr. Zalle Poko Moktar, 1st Vice-President (Upper Volta).

CREAA Plans for Regional Training Centre

The Second Biennial Adult Literacy and Education Regional Council (CREAA) of literacy programmes in essentially Franco-phone States of West Africa met in Lome, Togo from May 15-19, 1978.

Several important decisions were taken at this meeting:

The Council wishes to increase its membership to include representatives of all governmental literacy workers of States in countries South of the Sahara.

The Council took definite action toward creation of a Regional Literacy Training Centre. The decision was also taken to make the proposed centre serve all member state major languages through an emphasis on major African languages and the working use of three languages: French, English and Portuguese. However neither the funds are available, nor was agreement reached on the potential site for a Centre.

Subject to the availability of funds, a seminar on evaluation is tentatively planned for UNESCO sponsorship in July. Another seminar on Literacy Materials will be held in 1979. Smaller expert consultations and technical meetings are also being planned.

The new CREA officers for 1978-1980 are allotted to the following coun-

tries, with the Presidency rotating from biennium to biennium in alphabetical order: President: Benin (represented by M. Baba-Moussa Sidicon); 1st Vice-President: Upper Volta (represented by Zalle Poko Moktar); 2nd Vice-President: Congo (represented by J. Tchikaya); Permanent Secretary: Togo (represented by Adamou Kankpe-Kombath).

The CREA concluded its work with a strong final recommendation urging UNESCO, African Adult Education Association (AAEA) represented at this meeting by the Executive Secretary, Mr. Ed Ulzen, and AFROLIT Society, represented by the General Secretary, Dr. Charles Hein, and the Summer Institute of Linguistics and INADES to seek in every way possible to cooperate and share information on ways of cooperation to promote all measures to wipe out adult illiteracy in Africa.

For the first time a Portuguese-speaking state, Guinea-Bissau, was represented along with one Anglophone country, Ghana. The remaining 13 delegates came from Francophone countries: Benin, Congo, Ivory Coast, Central African Empire, Guinea, Guinea Bissau, Upper Volta, Mali, Niger, Rwanda, Senegal, Togo, and Zaire.

Published by AFROLIT SOCIETY
P.O. Box 72511, Nairobi, Kenya
K.K. Kanyogonya, Editor.

INSTITUTION OF ENVIRONMENTAL SCIENCES

NEWS SHEET

27 JUL 1978

INSTITUTION NEWS

Introduction

This month the News Sheet appears in its new form. Our membership has increased to the point when printing becomes more economical. In addition, less paper will mean lower postage costs, especially for our overseas members.

The Thames/Potomac Seminars

At the beginning of June the Institution and Thames Water will be welcoming over thirty experts from the United States, who will be taking part in the London meeting of the Thames/Potomac Seminars. Opening the meeting will be Mr. Kenneth Marks, M.P., Parliamentary Under-Secretary of State, Department of the Environment; Mr. Peter Black, Chairman of Thames Water; and our own Chairman, Lord Sandford. These seminars are of special interest to Lord Sandford, since the re-organisation of the water industry in the United Kingdom took place during the time he was Minister at the Department of the Environment. The delegates from the United States will include Commissioners and staff of the Interstate Commission of the Potomac River Basin, Federal and State Agencies, as well as universities and voluntary conservation organisations. A most interesting and highly significant programme has been organised under the chairmanship of Mr. Hugh Fish, O.B.E., Director of Scientific Services, Thames Water. In addition to U.S. and U.K. delegates, numerous international agencies will be represented. The title of the seminar is WATER SERVICES: NEEDS, MANAGEMENT AND USER RELATIONSHIPS, and it will be a continuation of the April seminar in Washington. The main areas to be considered are:-

- * Water quality needs
- * Water quality aspects
- * Planning and financing water services
- * The water authority/public interface

Institution members taking part in the seminar include: Lord Sandford, Professor Graham Ashworth, Dr. John F. Potter, Peter Townsend, and David Hughes-Evans.

World Environment Day - 5 June

This year represents the sixth annual World Environment Day. On 5 June Dr. Mostafa Tolba, Executive Director of UNEP will deliver his message on the state of the world's environment at U.N. Headquarters, New York. This year attention is being focused on four main subjects:-

- * Environmental disease : malaria
- * Chemicals and the environment
- * Increasing the agricultural base for food production : the use of waste
- * Conservation : the case of energy and energy sources

On the same day the PAHALAVI PRIZE will be presented to outstanding environmentalists. This was first awarded to Maurice Strong in 1976. In 1977 it was awarded jointly to Jacques Cousteau and Sir Peter Scott.

World Environment Day falls on the opening day of the Thames/Potomac Seminar. In a reception given by Council to the American delegates and visitors, the Institution will mark this important occasion. Delegates will be welcomed by The Lord and Lady Sandford. During the

evening Dr. John F. Potter, Hon. Secretary and member of Council will introduce the following:-

Mr. Kenneth Marks, M.P.
Parliamentary Under-Secretary of State,
Department of the Environment.

Dr. Letitia Obeng
Senior Programme Officer,
Division of Environment Management, UNEP.

Mr. James L. Aldrich
Vice-President, Massachusetts Audubon Society, U.S.A.

Each will give a short World Environment Day message. This will be an occasion of co-operation between inter-governmental, governmental and non-governmental organisations, which will be very much in the spirit of the day.

Education Committee

The Education Committee met on the 10 May 1978 under the Chairmanship of Professor Elizabeth Perrott, University of Lancaster. The Committee made the following recommendations:-

- * In respect of future national and international conferences, it was felt that the Institution should concern itself specifically with interconnecting environmental themes. Three titles were approved:
Second European Conference on Environmental Education
Tourism, leisure and the environment
Participation legislation
With highly specialised topics such as pollution, the Institution should organise these in association with others, such as the Environment Group of the Chemical Society.
- * The annual national seminar on higher environmental education will be held in London, November 24 1978. The title WHAT ARE THE ESSENTIAL CONCEPTS OF ENVIRONMENTAL SCIENCE EDUCATION AT DEGREE LEVEL?

Arrangements are also in hand for a meeting of the tutors of environmental courses. The first of these was to have been held at Lancaster, but due to the illness of Professor A.N. Hunter, the first meeting will now be held at Plymouth. The subject for discussion of this meeting will be FIELD STUDIES.

Members interested in taking part should contact Dr. L.A.F. Heath, Head of School of Environmental Sciences, Plymouth Polytechnic, Plymouth, Devon.

- * The education committee, after discussing the wider implications of the Thames/Potomac Seminars, recommended setting up a Resources Committee which would refer to Council. The first task of this committee would be to investigate the further role of the Institution in water resource and resource management. The committee felt that this committee should be chaired by Professor Graham Ashworth, Professor of Urban Environmental Studies at the University of Salford. The Professor presented a major paper on land use at the Washington meeting and will have the final word under the title WHERE TO NEXT? at the London meeting.

4th Report from the Select Committee on Nationalised Industries

This report was published on the 27 February 1978 and deals with the British Waterways Board. Among the recommendations of the report are:-

- * Acceptance of the findings of the Fraenkel Report
- * Devise a technique for the appraisal of all forms of transport investment, including waterways
- * Ministerial responsibility should be transferred from the Department of the Environment to the Department of Transport
- * Abandon the proposed merger of the British Waterways Board into a National Water Authority

REPORTS AND PUBLICATIONS

Environment Board
First Progress Report to the Secretary-of-State for the Environment

This report reviews the work of the Environment Board, its general findings, its recommendations and future work. The report is published by H.M.S.O. for 45p.

The Environment Board was set up in June 1975, to advise on environmental aspects of implementing the Government in community land legislation. It also advises on ways in which the Department of the Environment can contribute to the improvement in the quality of the built environment. The chairman of the Environment Board is Sir Robert Marshall, KCB, MBE, Second Permanent Secretary, Department of the Environment.

New UNESCO Publications

UNESCO has recently published two new directories which will be of special interest to Institution members:-

- * International Directory of Institutions active in the field of Environmental Education
- * International Directory of individuals involved in Environmental Education

Further information regarding these publications from:-

Programme in Environmental Education
UNESCO - ED/STE
7 Place de Fontenoy
75700 Paris, France.

International Journal of Environmental Studies

Volume 12 Number 1 (1978) of the Journal is a special issue on NUTRITION AND HEALTH. The papers are the proceedings of the 7th Annual Conference of the McCarrison Society, which was held at Keble College, Oxford, July 1977.

The journal is published by:-

Gordon and Breach Science Publishers
42 William IV Street
London, W.C.2. U.K.

Environmental Data Service (ENDS)

This is an independent research and information centre providing service for management. ENDS Report, 1 May 1978 looks at two recent important issues:-

- * The Windscale Inquiry
- * The Amoco Cadiz

The publication will appear every fortnight. For further information regarding subscription contact:-

Environmental Data Services Ltd.
Orchard House
14 Great Smith Street
London, S.W.1. U.K.

Environment Liaison Centre

The ELC have produced two recent publications:

- * The Centre Report: This is very much concerned with World Environment Day, the AGM of the ELC, and some information on the UN Science and Technology Conference
- * EE Switchboard: This provides a summary of the Tbilisi recommendations. It also provides a list of organisations under the heading NGO Environmental Education Network

Further information from:

Environment Liaison Centre
P.O. Box 72461
Nairobi Kenya

NEWS ITEMS

Water Research Centre (WRC)

The WRC is an internationally known organisation covering most aspects of water technology, which held its Open Days on the 10-12 May 1978. Among the many exhibits were advanced techniques for monitoring water quality.

National Youth Workshop on Population and Development
28 May - 5 June 1978

This workshop will be held at Kristu Jyoti College, Bangalore, India, and is organised by the Indian Youth Population Coalition. Further information from:-

Indian Youth Population Coalition,
35-B First Cross Street,
Shastri Nagar,
Madras - 600 020,
India. Telephone: 414062

Marine Life Quiz 1977/78

Details of OPERATION SEA LIFE 1978 can be obtained from:-

The Wildlife Youth Service of the World Wildlife Fund,
Marston Court,
98-106 Manor Road,
Wallington, Surrey,
SM6 0DN

The Presidents of this organisation are Sir Peter Scott, Harry Secombe, Johnny Morris and Spike Milligan.

Recurrent Environmental Education

The proceedings of the National Seminar on Recurrent Environmental Education will be published by Symposium Press Ltd. and will be available at the end of June. Copies may be ordered from the Secretary of the Education Committee (Price £4 soft cover, £8 hard cover).

This publication has been possible through a gift from Shell U.K. Ltd. towards the cost of publication. We are most grateful to Shell, through their Better Britain Campaign, for this assistance.

COMMUNICATIONS

All communications should be addressed to:-

Dr. John F. Potter,
Hon. Secretary,
The Institution of Environmental Science,
14 Princes Gate,
Hyde Park,
London, S.W.7. U.K.

THE ALLIANCE EXCHANGE



THE ALLIANCE FOR ENVIRONMENTAL EDUCATION

WINTER 1978

Editor
James L. Aldrich

Alliance Affiliates

American Association of State
Colleges and Universities
American Federation of Teachers
American Forest Institute
American Gas Association
American Institute of Architects
American Nature Study Society
American Society for
Environmental Education
Association for Environmental
and Outdoor Education
Boy Scouts of America
Conservation Department/United
Auto Workers Union

Conservation Education
Association
Edison Electric Institute
Forum for the Advancement of
Students in Science and
Technology
Foresta Institute
Girl Scouts of the U.S.A.
Humane Society of the
United States
International Council for Health,
Physical Education &
Recreation

Izaak Walton League of America
League of Women Voters of
the U.S.
Massachusetts Audubon Society
National Association for
Environmental Education
National Association of
Conservation Districts
National Audubon Society
National Council for
Geographic Education
National Council for the
Social Studies

National Education Association
National Parks & Conservation
Association
National Science Teachers
Association
National Wildlife Federation
The Nature Conservancy
Soil Conservation Society
of America
Western Regional Environmental
Education Council
Wildlife Management Institute

TBILISI CONFERENCE A CHALLENGE TO ALL NATIONS

The first Intergovernmental Conference on Environmental Education was held in Tbilisi, USSR from October 14 through 26, 1977. The Conference, organized by the United Nations Educational, Scientific and Cultural Organization (Unesco) in cooperation with the United Nations Environment Program (UNEP), completed the current phase of the Unesco/UNEP International Environmental Education Program.

Sixty-six official government delegations took part. Also attending were observers from two countries that are not members of Unesco, eight other United Nations organizations, three intergovernmental organizations and twenty international non-governmental organizations (NGO's)

The U.S. Delegation with 16 members, including 4 people chosen to represent NGO's, was one of the larger and more

(Continued on page 2)

A U.S. RESPONSE TO THE CHALLENGE FROM TBILISI

On March 28-30 the Alliance is sponsoring the 1978 National Leadership Conference on Environmental Education. The Conference is designed as a part of the continuing development and implementation of environmental education and will build on prior EE accomplishments and meetings -- local, national and international.

The first Intergovernmental Conference on Environmental Education provides an important opportunity for assessing progress to date and preparing strategies for coordinated efforts for future action.

Peter Drucker, the famous management consultant and educator, wrote:

Failure to feed back from results may well, tomorrow, endanger the environment and our efforts to save it. Results are badly needed. But so far we have neither faced up to the need to think through what we are after nor set priorities; nor have we organized a feed back from results

(continued on page 6)

needs to be taken. The results, however, are not the equivalent of a plan of action. We do not lack for good ideas about who should be reached with what type of materials on environmental subjects. The gap between ideas and implementation is the area deserving the greatest attention. This is the critical challenge posed by the Tbilisi Conference.

The job in environmental education is a long way from being done, but the Tbilisi Intergovernmental Conference on Environmental Education has provided significant impetus for constructive action on the tasks that lie ahead. Perhaps most importantly, since the final report of the Conference was a matter of agreement by governmental delegations, it also offers a "scorecard" for assessing national and international achievements in E.E.

TBILISI POSTSCRIPT

With apologies to Cervantes, the proof of the meeting is in the implementation. And there are a number of reasons to be optimistic about the follow-up to the Tbilisi Conference:

- Item: In their concluding remarks at the Conference, both Unesco and UNEP indicated a strong commitment to the long term support needed to implement the recommendations.
- Item: The non-governmental organizations that attended the meeting met frequently during the Conference to consider how best to interact with the proceedings and how to take useful action in support of the post-Tbilisi efforts. Among other things, they discussed the need for improved networking among NGO's, especially on a regional basis.
- Item: Following the Conference, an International Workshop in Environmental Education for Non-governmental Organizations was sponsored in Geneva by the Nairobi based Environment Liaison Centre. About one third of the workshop participants had attended the Tbilisi Conference. As stated in

the meeting announcement, "The aim of the workshop is to build an active, on-going network of NGO's involved in Environmental Education, with regional and inter-regional connections."

- Item: From August 21-28, 1978, a Regional Workshop on Environmental Education will be held in Colombo, Sri Lanka under the sponsorship of the Institution of Environmental Sciences, the Alliance for Environmental Education and the World Environment and Resources Council, and in cooperation with regional NGO's. The workshop aims to:
 - stimulate regional communication and cooperation in EE
 - identify initial steps for implementing EE based on the Tbilisi Conference
 - prepare an action plan for EE on a national and regional basis
 - consider the relationship between formal and non-formal EE

Special arrangements are being made with hotels and airlines for limited participation from other regions. Inquiries regarding participation in the workshop should be directed to the Alliance or to: The Institution of Environmental Sciences, 14 Princes Gate, Hyde Park, London SW7 1PU, United Kingdom.

- Item: At Tbilisi, the Assistant Secretary of the World Confederation of Organizations of the Teaching Profession (WCOTP) said, "Ministeries and departments of education should seriously draw on the experience of educators through their national organizations of teachers, for it can be expected that what teachers had a hand in designing they will vigorously support and teach." WCOTP, in response to the actions taken at the Conference, has stated that it "will re-examine its efforts in environmental education in light of the recommendations and the new and increased responsibility

JULY/AUGUST, 1978

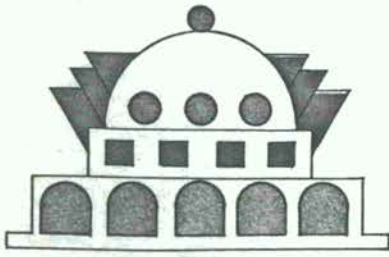
EE REPORT

Grassroots To Global
Coverage Of Funds,
Projects, Materials And
Trends in Environmental
Education



A School on Wooden Wheels

Story on page 8



CAPITOL CLIMATE

EE Measures Stall In Congress

The House version of the Elementary and Secondary Education Act amendments, which authorizes funding for population education programs, has stalled in the House of Representatives. A vote was to have been scheduled for late June, but House sources now say that the vote will probably be scheduled after Congress' July 4th recess.

A vote on the Senate version of the ESEA amendments, which contains both the population education funding provision and the reauthorization for programs under the Environmental Education Act, is also expected late this summer.

The population education funding provision contained in the House bill authorizes 10 per cent of the funding available under Title VI of the ESEA for the development of population education programs in elementary and secondary schools. This amount could reach as much as \$6 or \$7 million.

The Senate version provides \$3 billion for the population education programs.

The Senate version of the EE Act authorization sets aside \$45 million for environmental education programs for Fiscal Years 1979 through 1983. The House version of the EE Act authorization provides the same level of funding and was passed by the House last February as a separate measure.

If the measures pass this summer, funding from the reauthorization for the EE Act programs will be available for appropriation beginning in the fall.

EPA Sponsors Youth Awards Program

All around the country, students are working on environmental projects — on everything from recycling old tin cans to developing complex land-use guidelines. Through the President's Environmental Youth Awards program, these students — from kindergarten through 12th grade, summer campers, and youth group members — are eligible to receive awards for their work either as individuals or as participants in a group effort.

The program also serves to encourage schools, camps, and youth groups to organize environmental projects and to involve young people in community activities.

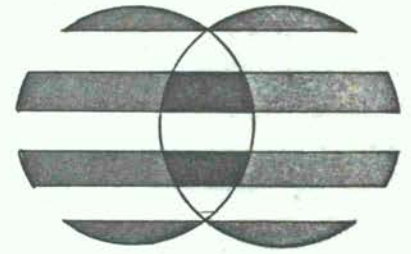
Sponsored by the U.S. Environmental Protection Agency, the program's focus is entirely in the local community. Projects must be sponsored by an adult representative of a school, camp, or youth group. Each sponsor must organize a local awards panel to advise project participants, determine the basis for making awards, decide who should receive awards, and make arrangements for presenting the awards.

The membership of the awards panel should ideally reflect a good cross section of the community and include representatives of the sponsor's organization, community leaders, members of local environmental action groups, local media representatives, and others.

There are two certificate awards, the "certificate of merit" and the "award of excellence," which reflect different degrees of student effort. For summer camp projects, colorful shoulder patches are awarded.

In the past, awards have gone to summer campers for their work in establishing a bird sanctuary and wildlife gardens, to high school students who established a local lake district, and to elementary school students who learned how to plant and care for trees.

To receive a program brochure with more information and an application form, write: *President's Environmental Youth Awards, U.S. Environmental Protection Agency (A107), 401 M Street, SW, Washington, DC 20460.*



GLOBAL EXCHANGE

Plug into the EE Switchboard

If you want to keep in touch with what's happening in environmental education around the world, send for a copy of *EE Switchboard*. The publication is designed to provide resource information for educators in various parts of the world, and to help connect non-governmental organizations in developed and developing countries. Contributions of news and articles are welcome. Write to: *Environment Liaison Center, P.O. Box 72461, Nairobi, Kenya.*

UN Awards Pahlavi Prize

In connection with World Environment Day on June 5, the United Nations awarded the Pahlavi Prize to Norwegian explorer Thor Heyerdahl and to Egyptian professor Mohamed El-Kassas, a plant ecologist.

This award is given each year to a world environmental figure.

The award, the third since the program's inception, was made to Heyerdahl for his efforts in directing world attention to ocean pollution, and to El-Kassas for his work in combatting desertification.

The prize is sponsored by the United Nations and is based on nominations from member nations. The nominations are reviewed by an advisory committee which screens them for final selection by the UN Secretary General.

ENVIRONMENTAL AWARENESS

20 FEB 1978

QUARTERLY JOURNAL

DEVOTED TO THE CAUSE OF ENVIRONMENTAL CONSERVATION

FOR HUMAN WELFARE

ENVIRONMENTAL EDUCATION WORKSHOP AND CONFERENCE

The Environment Liaison Centre is organising an international workshop, 'The NGO Workshop for Environmental Education Cooperation', to be held in Geneva, 28-30 October, 1977. NGO representatives from all parts of the world, knowledgeable in environmental education, are invited. All aspects of environmental education which have regional and inter-regional implications will be discussed at the Workshop with the object of forming an international NGO network of Environment Educators.

The workshop will assess the different NGO requirements in each geographical region, so that the components in the network can function with some understanding of other regions' capabilities

and deficiencies. ELC will evaluate resources (i. e. ideas, techniques, expertise and material resources) and assess the strategies of NGOs (i. e. goals, plans and actions) for their regional and inter-regional implications and possibilities.

This is the first time a workshop of this kind has been held and it offers an excellent opportunity to those interested in environmental education to learn of the work other NGOs in different parts of the world and to plan actions together for the future.

The Workshop follows the UNESCO 'Intergovernmental Conference on Environmental Education' to be held in Tbilisi, USSR, from 14-26 October, 1977.

*Courtesy : ELC, Nairobi, Kenya.

Published by INSONA, the Indian Society of Naturalists
Baroda, INDIA.

MEETINGS SCHEDULED BY NGOS RELATED TO THE PROJECT

MARCH - JUNE 1978

MEETINGS SCHEDULED BY NGOS
RELATED TO THE PROJECT
MARCH - JUNE 1978

March 1 - 8

Environmental Science Education Workshop
 Held: Nairobi, Kenya
 Contact: Mike Savage, Kenya Inst. of Education, P.O. Box 30231, Nairobi.

March

Environmental Management Education for Technicians and Administrators
 17 - 19 Held: Darjeeling (W. Bengal), India
 23 - 24 Held: Varanasi (U.P.), India
 28 - 30 Held: Udaipur (Rajasthan), India

Contact: Dr. Desh Bandhu, Indian Environment Society,
 8 Darya Ganj, New Delhi 110002, India. (Tel: 278764)

March 21

Debate on Earth Day
 Held: Nicosia, Cyprus
 Contact: C.P. Ionnides, Dept. of Town Planning and Housing, Ministry
 of the Interior, Nicosia, Cyprus

March 21 - 31

Exhibition - Water: a Precious Resource
 Held: Exhibition Hall, Baroda Museum, Baroda, India
 Contact: Dr. G.M. Oza, Indian Society of Naturalists, Oza Building,
 Salatwada, Baroda, 390 001, India.

March 28 - 30

National Leadership Conference on Environmental Education
 Held: National Wildlife Federation, 1412 16th Street, N.W.,
 Washington, D.C., USA.

April

Asian Environment Council Conference
 Held: Bangkok, Thailand
 Contact: Viroj na Bangchang, Asian Environment Council,
 1787-9 New Petchburi Road, Bangkok, Thailand.

May 31 - June 2

World Environment Day Symposium
 Held: Strobl/Wolfgangsee, Austria
 Contact: ABNO - Arbeitsgemeinschaft der Berg - und Naturwachten Osterreichs

Appendix J

June 3

Water is Life Walk

Held: Uhuru Park, Nairobi, Kenya

Contact: Kenya Freedom From Hunger Council, P.O. Box 30762,
Nairobi, Kenya.

June 3 - 5 (approx.)

The Environment in Malaysia

Held: Penang, Malaysia

Contact: The Secretary, Symposium on the Environment in Malaysia,
c/o Consumers' Association of Penang, 21-C Codrington Avenue,
Penang, Malaysia. (Tel: 20361)

June 4 - 18

15 Days of Nature

Held: ?

Contact: Association Pour La Sauvegarde de la Nature Neo-Caledonienne,
50 rue Anatole France, Noumea, New Caledonia. (Tel: 721-24)

June 5

National poster/essay competition and exhibition on the environment.

A Major thoroughfare in all State capital cities will hopefully be
traffic-free all day.

Contact: Environmental Protection Society, 127 Jalan 17/14, Petaling Jaya,
Selangor, Malaysia. (Tel: 03-564287)

June 5 - 11

Homeostasis of Terrestrial Ecosystems Conference and Exhibition on
"The Strength of Life".

Held: Jablonna, near Warsaw, Poland

Contact: Prof. dr. P. Trojan, Institute of Zoology, Polish Academy
of Sciences, ul. Wilcza Nr. 64, 00-679, Warszawa.

NOTE: for Comecon Countries

June 1978

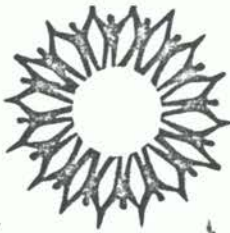
11th World Festival of Youth and Students

Held: Havana, Cuba

Contact: World Federation of Democratic Youth, P.O. Box 147,
Budapest 1389, Hungary. (Tel: 128 640)

NOTE: Some of the discussion topics are the New International
Economic Order, disarmament, the United Nations and Human Rights.

LETTERS FROM NGO REPRESENTATIVES ABOUT THE PROJECT



Sun Day

1028 Connecticut Avenue, N.W., Room 1100
Washington, D.C. 20036
(202) 466-6880

23 MAY 1978

May 10, 1978

Dear friend of solar energy,

First of all, let me apologize for sending you a form letter, but time and money are in short supply and I want to reach you all quickly.

Some of you sent us information about your Sun Day events, but it arrived too late to be included in the last International Sun Day press release, which was issued at Golden, Colorado on May 3 during President Carter's visit. Some of you have sent us press clippings from your newspapers, or articles from magazines and leaflets that your organizations have sent out. Some of you have written asking for information on solar and Sun Day. To all of you, thanks for your interest, and enclosed please find a copy of the May 3 press release and a summary of all the activities we knew about at that time.

Please continue to send me information and clippings as solar things happen in your country. My new address after June 1 will be: Solar Energy Research Institute, 1536 Cole Boulevard, Golden, Colorado 80401. (Golden is a small town near Denver. My phone number will be 303/234-7171.) I intend to write a summary report on Sun Day International sometime this summer, so your information will be put to good use. We will also prepare a scrapbook of clippings and other pertinent memorabilia so that there will be a permanent record of what happened around the world on May 3, 1978.

Again, my personal thanks and greetings from all the members of the Sun Day staff. Due in large measure to your work and interest, Sun Day was a great global event. We all hope it will be the beginning of the solar age.

Let's keep in touch.

Sincerely,

Liz Moore

Elizabeth Moore

International coordinator

Your EE Switchboard publication is most attractive, and I liked your Sun Day article. Dr. Noel Brown in NYC was so helpful, too. What happened in Nairobi on Sun Day?

Thanks - L.M.

Board of Directors

Allobaum
Farm Energy Project
Booth
Invest Academy
Thomas Bradley
of Los Angeles
Tower
of the Earth
Robert S. Browne
Economic Research

Butt
Energy Industries Ass'n

rd J. Carlough
Metal Workers
s'n

Clark
ornia Governor's Office

man Daly
na State University

ke V. Domenici
Senator (R-N.M.)

as Fraser
Auto Workers

Ginzton
Associates

Harnik

ay
Harris IV
Association for the
of Rome

Gary Hart
nator (D-Colo.)

ayes (Chairman)
Watch Institute

Henderson
ton Center for
tive Futures

nes Jeffords
Congressman (R-Vt.)

ohnson
ournal of Appropriate
ology

ennard (Vice Chairman)
onmentalists for Full
loyment

am Klein
lar Energy Society

el McCloskey
Club

Gowan
sts' Institute for
Information

Mendoza
ornia Dep't of Housing

yer
orks

d Morgan
onmental Action
tion

Munson

en O'Reilly
umer Federation of

Richard Ottinger
Congressman (D-N.Y.)

Rathke

ly
iford
ner Action Now

emy Stone
ation of American
ts

Tisdale
n for Bridgeport

r. Lucius Walker, Jr.
ouncil of Churches

Winpisinger
s'n of Machinists

Yellott
na State University



WORLD UNIVERSITY SERVICE, PHILIPPINES

HEADQUARTERS:
Manila Central University
Zurbaran St., Sta. Cruz,
Manila D-404
Tel. Nos. 26-45-86-87

Chairman: Filemon G. Tanchoco, Jr.

Treasurer:

General Secretary: Ruben C. Caluya

Project "Lingap sa Nayon" (LINA)

barrio development programme

April 13, 1978

Serena Zwangobani
Project Coordinator
Environment Liaison Centre
P.O. Box 72461
Nairobi, Kenya

Dear Serena,

Thank you for a copy of EE Switchboard. Kindly record the address of the International Office of World University Service for future reference: Mr. Richard Taylor, General Secretary, WUS International, 5, Chemin des Iris, 1216 Geneva (Cointrin) Switzerland.

We are currently planning out how we can include specific strategies on environmental education thru our social action program (Project LINA) in the Philippines.

We are currently fielding student volunteers to work as motivators in community development in the rural areas. I believe I have already sent you a brief resume on the project.

We do look forward to hearing from you to update our information on current concerns.

Our very best wishes.

Sincerely,

WORLD UNIVERSITY SERVICE,
PHILIPPINES


RUBEN C. CALUYA
Asian Representative

cc: Richard Taylor
General Secretary



International Youth Federation for Environmental Studies and Conservation

under sponsorship of the
International Union for Conservation of Nature and Natural Resources

L.L.Sharma, ~~भारत~~
IYF Asian Coordinator,
206, Ashok nagar
Udaipur-313001(India)

TO

Serena Zwangobani
E.L.C. P.Box 72461
Nairobi, Kenya

1978/4/8

Dear Madam,

I begun to feel interest in the EE net work through the very first issue of the ELC's news letter 'Switch Board'. I further note that you are coordinating this activity as a follow up to the NGO work shop of Geneva.

From the list of different individuals and organisations given in the same issue of SWITCH BOARD, I also understand that many of our important contacts who are very much involved in environmental work are missing ! Therefore I feel it is important to include these contacts in this net work .

I do not know upto what extent contacts are already existing between Consumer Asso. of Penang and other organisations in ASIA but surely we could be of some help in suggesting a few of them.

I propose that Consumer Association of Penang should carefully examine individuals and organisation through some means and then include these in the EE net work.

In this connection I would like to hear comments from your side and please to ask for our help in this matter.

Looking forward to hear from you,

Environmentally your


L.L.Sharma

CC: Consumer Asso. of Penang
IYF-President & Int. Coordinator.
WGE-Member Asia

Bizqith, Pastor, Espen

SV
13 APR 1978

DEPARTMENT OF STATE
AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

June 5, 1978

12 JUN 1978

Mr. Gary T. Gallon
Manager
Environment Liaison Center
P.O. Box 72461
Nairobi, Kenya

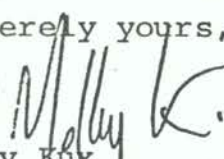
Dear Gary:

Thank you for your letter of May 2 and the enclosed background information on the Environment Liaison Center. I would like to learn more about your Environmental Education project and also receive additional copies of the EE Switchboard, which I found very interesting, for distribution within AID. If you have a general description of the Center's overall function and program, that would also be useful.

In reference to possible AID funding, I would like to discuss that further with others in the Agency before responding to you on the possibilities. My initial reaction is that we could respond better to a specific proposal rather than a request for general support to the organization itself. One thing that caught my attention was your waiting list of subscribers, of which only 20 out of 100 are in developing countries, but I assume that does not necessarily represent all your contacts around the world. It would be helpful to get some idea of the NGOs you are working with in LDCs.

I enjoyed talking with you at Yusuf's and particularly appreciated the ride home. Please let me know if you plan to come to Washington. I would like very much to get back to Nairobi, but I'm not sure when that might be.

Sincerely yours,


Molly Kux
Office of Science and
Technology

MRS. AVABAI WADIA
President F.P.A.I.

MR. N.K. BHATT, M.P.

PROF. P.B. DESAI
Institute of Economic
Growth, Delhi

MR. S.P. GODREJ
Industrialist

PROF. T.S. MEHTA
Consultant, UNESCO

youth & family planning programme council

युवक एवं परिवार आयोजन कार्यक्रम परिषद

REF. : POPULATION-NUTRITION-ENVIRONMENT-ADULT EDUCATION DEPTT.

7th April 78.

Mr. Gary Gallon
E E switchboard
Environment Liaison Centre
P.O.Box.72461
Nairobi, Kenya.

13 APR 1978

Dear Mr Gallon,

Thank for sending us the E E switchboard. It is a venture which should not be stopped.

This council has been actively working for the education of young people in population & environment problems in our intensive education programme funded by the Church World Service. Under this programme youth camps are being organised in the villages of Madhya Pradesh, 50-60 young people get together in a camp for two days. They are motivated about population problems & environmental problems. They also under take a mini survey of the environmental problems of that particular villages & then form a group to face those problems. The council provides them with basic support to carry on their work in population & environmental education.

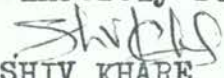
Last year environment day was organised by way of two days National NGO meeting at the U.N. Conference hall in New Delhi. 30 National voluntary agencies participated, a national plan of action was initiated since then several voluntary groups started taking interest in environment programme.

This year also council has planned a National Workshop on the "Gandhian approach to environmental problems" to be held in Delhi on 5th & 6th June. We have a monthly publication in Hindi "Ayojit Bhavish" (Planned future) which carries stories about environmental problems.

The council is interested to be a part of the environmental education net work. Therefore please arrange to include our name in "NGO Environmental Education Net Work".

Looking forward to be in close touch.

With Greetings,
Sincerely Yours,


SHIV KHARE
GENERAL SECRETARY.



INDIAN SOCIETY OF NATURALISTS

C/o Maharaja Fatesingh Zoo Trust, Indumati Mahal,
Jawaharlal Nehru Marg, Baroda-300 001 (INDIA),
Patron-in-chief : Shri Fatesingh P. Gaekwad

21 APR 1978

Dr. G. M. OZA

M.Sc., Ph.D., F.L.S.

Editor

Address for correspondence:
"Oza Building", Salatwada,
Baroda-390 001 (INDIA).

ENVIRONMENTAL
AWARENESS

12th April, 1978.

Quarterly Journal devoted to the
cause of Environmental Conservation
for Human Welfare.

Dear Mr. Gallon,

I had received your letter of 20th February, 1978 and, hereby, convey our gratitude to ELC for interest in INSONA.

We have also read with pleasure a note on our Journal - Environmental Awareness in the latest "Switchboard". Many thanks.

We have started functioning already about the WED 1978. Some of the details are presented in the 2nd issue of our Journal; it also carries the details, desired by you to be published. During this week, we shall care to mail the latest copy to you as well as to UNEP.

In the latest issue of 'Monthly Mailing' of IYR for Environmental Studies and Conservation, there is an item under WED about finances. It mentions that ELC in a letter to IYR has stated that funds are available to carry out activities in the field of the WED 1978; the amount is between 2 to 5 hundred US Dollars.

We are financially not at all in a sound position. In spite of this, last year we brought out special WED posters in conformity of your theme and arranged a symposium on 'Environment'. This year, we had an exhibition on Earth Day - on "Water - a precious resource". We are to have a photographic competition on this Year's theme in the 1st week of June and other useful suggestion from your letter are to be implemented as best as possible during the course of the year.

We shall be indebted to you if substantial financial assistance is also made available to INSONA to further the cause for which ELC, UNEP and we are striving for.

.... 2

President : SHRI FATESINGHRAO P. GAEKWAD, M.P.

Vice Presidents : PROFESSOR S. S. MERH, M.Sc., Ph.D., D.I.C. SHRI M. A. RASHID, B.Sc., A.I.F.C., I.F.S.,

DR. A. M. THAKKAR, LL.B., M.A., F.R.C.S., F.R.C.S.E., F.R.C.S.G., A.I.L., GANIT UTTAMA, SIDDHANTACHARAY

General Secretary : DR. G. M. OZA, M.Sc., Ph.D., F.L.S.

Joint Secretaries : DR. S. J. BEDI, M.Sc., Ph.D. SMT. MRUNALINIDEVI PUAR, M.S. (U.S.A.)

Treasurer : SHRI M. C. GHIA, M.Sc., M.Sc.



INDIAN SOCIETY OF NATURALISTS

C/o Maharaja Fatesingh Zoo Trust, Indumati Mahal,
Jawaharlal Nehru Marg, Baroda-300 001 (INDIA),
Patron-in-chief : Shri Fatesingh P. Gaekwad

Dr. G. M. OZA

M.Sc., Ph.D., F.L.S.

Editor

Address for correspondence:
"Oza Building", Salatwada,
Baroda-390 001 (INDIA).

ENVIRONMENTAL
AWARENESS

12th April, 1978

Quarterly Journal devoted to the
cause of Environmental Conservation
for Human Welfare.

- 2 -

Can I possibly have at least about 24 information packages, about 100/posters and several 'prior' copies of the World Environment Report, 1978, for the "Press" by the end of this month? For, before I leave Baroda for Srinagar (Kashmir Valley) on 13th May, I can brief the Press here and, thereafter, in the first week of June in Kashmir as well, to serve our purpose for the benefit of the Society. This may also be conveyed to UNEP authorities and Mr. Bert Demmers, UNEP to help in the matter.

Convey our regards to Mr. Graham Searle, WED Liaison Officer.

Awaiting for a favourable response and with kindest personal regards,

Yours sincerely,

G.M. Oza
Editor &
E. A.

Gen. Secretary: Indons.

To

Mr. Gary T. Gallon,
Manager:
Environment Liaison Centre and
WED Project Co-ordinator,
P.O.Box 72461, Nairobi,
Kenya.

P.S.: Kindly keep us on your mailing list, although we can not subscribe to your publications. This has to be reciprocated, as we have to have you on our list. However, if some one can sponsor our dues please do let us know. And we shall care to acknowledge them.

President : SHRI FATESINGHRAO P. GAEKWAD, M.P.

Vice Presidents : PROFESSOR S. S. MERH, M.Sc., Ph.D., D.I.C. SHRI M. A. RASHID, B.Sc., A.I.F.C., I.F.S.,

DR. A. M. THAKKAR, LL.B., M.A., F.R.C.S., F.R.C.S.E., F.R.C.S., G. A.I.L. GANITUTTAMA, SIDDHANTACHARAY

General Secretary : DR. G. M. OZA, M.Sc., Ph.D., F.L.S.

Joint Secretaries : DR. S. J. BEDI, M.Sc., Ph.D. SMT. MRUNALINIDEVI PUAR, M.S. (U.S.A.)

Treasurer : SHRI M. C. GHIA, M.Sc., M.Sc.

THE JEAN-MICHEL COUSTEAU INSTITUTE
A Public Non-Profit Corporation

16 MAY 1978

May 8, 1978

EE Switchboard
Environmental Liason Centre
P.O. Box 72461
Nairobi,
KENYA

Ref. CIFRB/1645/PM

Gentlemen:

We were fortunate to receive a copy of issue No. 1 of the E.E. SWITCHBOARD January/February 1978 through the courtesy of Mr. Raymond J. Smyke, Assistant Secretary of WCTOP of Switzerland and we want to offer our congratulations for the excellent content of this Newsletter.

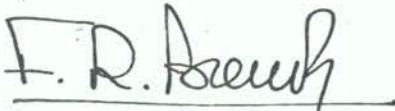
We are enclosing documentation about our public non-profit foundation and our 1978 series of environmental education programs: Project Ocean Search Expeditions.

We would be most grateful if you would bring The Institute and Project Ocean Search to the attention of your readers and also if you could add us to your mailing list.

We shall do the same here and will give E.E. SWITCHBOARD the most exposure we can.

Thank you very much in advance for your cooperation.

Yours sincerely,



Francois R. Brenot
Executive Vice-President

enc.

TIMETABLE

WORKSHOP FOR ENVIRONMENTAL EDUCATION COOPERATION

TIMETABLE OF MEETINGS

- Thursday 27 October: 5.00 Registration
7.30 Buffet supper for Workshop: Room 104, le Grenil
- Friday 28 October: 9.00 Registration/Group Chairmen Meeting
9.45 Welcome address: Chairman, Environment Liason Centre
10.00 Reports on UNESCO/UNEP Conference, Tbilisi, 14-26 October 1977
11.30 Keynote Speech: Liberty Mhlanga, ENDA, Dakar
12.45 Break for lunch
2.30 Plenary: Establishing working groups
3.00 Working groups
5.00 Group Chairmen Meeting
6.30 Audio-visual presentations
- Saturday 29 October: 10.00 Keynote Speech: Victor Johnson, UNEP, Nairobi
12.45 Break for lunch
2.30 Working groups
5.00 Group Chairmen Meeting
6.30 Audio-visual presentations
- Sunday 30 October: 9.30 Working groups
11.45 Group Chairmen Meeting: Draft Reports
12.45 Break for lunch
2.30 Plenary: Working group reports
4.00 Plenary: Recommendations

PROJECT PROPOSAL FOR FUTURE WORK IN ENVIRONMENTAL EDUCATION

Objectives of the ProjectLong Term Objectives

The project is intended to encourage environmental education at the regional level, thereby increasing the public consciousness of and concern for the environment.

Particularly, the project aims to facilitate the work of NGOs already working in environmental education, building on the network of NGOs established during the ELC/UNEP project FP-0301-77-03, and to encourage other NGOs to realise their potential in the field of environmental education.

Short Term Objectives

It is proposed to achieve the following:

- provide a service to NGOs already working in the field of environmental education by
 - informing them of sources and availability of materials *and where practical the materials themselves.*
 - providing information on educational techniques, so that they might efficiently use the resources available to them.
- encourage an awareness of the environment amongst children, enabling them to comprehend the complexity and inter-dependence of environmental issues, as well as giving them an insight into different life-styles.

N.B. - THIS PROJECT OUTLINE IS ONLY A DISCUSSION DRAFT FROM LONDON TO NAIROBI. CLEARLY IT NEEDS POLISH AND POLICY DECISIONS BEFORE SUBMISSION TO ANY ONE OTHER THAN ELC STAFF AND DIRECTORS.

Description of the Project

The project will be divided into three parts:

- A) an information network
- B) a educational techniques and guidance service
- C) the child and the environment

A) An INFORMATION NETWORK

The Tbilisi conference in environmental education stated in Recommendation 24 "... there is a special need to improve the existing information infrastructure in the field of environmental education, thus making possible within an international information network the dissemination of information on important actions taken at the local, regional and national level

The project will provide a system so that the materials and information can be identified and made available to a wider audience. This will then allow for an assessment of the specific needs in resource development in each region. A simple cataloguing system has been designed, so that NGOs and other organisations can catalogue the materials they produce, and the availability of these materials. This information will be collected by the Environment Liaison Centre, and circulate quarterly in a bulletin. The materials will then be supplied from the organisation producing it; ^{although} some materials will be collected by ^{and distributed on request} the ELC. ^A review and abstract service will be included in the bulletin.

The following function would be performed by the ELC:

- 1) Design of cataloguing system, such as Appendix 1
- 2) Circulation of system, and collection of data from survey. This will use the NGOs on the ELC's profile survey as well as the network established in the ELC/UNEP project no: FP/0301-77-03. The survey will be carried out with regional focal points, to provide assistance to the NGOs, and other relevant institutions, and if necessary to visit NGOs in their regions.
- 3) Circulation of data on materials available. This will be included in a bulletin produced quarterly. Included in this bulletin will be an up-dating of the survey, in the form of additional indexing cards, to be returned to the ELC.

Description of the project, contd,

- 4) Production of an abstract and review service
- 5) Circulation of the above information to NGOs and other interested bodies.

B) An EDUCATIONAL TECHNIQUES & GUIDANCE SERVICE

The Tbilisi Conference in Environmental Education, in Recommendation 34, states "...to non-governmental organisations that they should incorporate environmental education activities into their existing programmes;" reiterating this, the recommendation of the Geneva workshop for ~~NGO co-operation in Environmental education~~ states "there is a need for a central organisation to facilitate regional work in environmental education" and "That the communication of knowledge and of actual effective methods tried out in real situations should be facilitated between the generators of such knowledge and methods and the users."

The project will provide a link between these "generators of knowledge" and the users, i.e. the educators, by producing a supplement which will provide the educators with information on educational methods and techniques and include the catalog system described in A) above. The supplement should facilitate the work of NGOs' environmental education efforts.

The supplement will include:

- i) ideas for possible NGO educational programmes
- ii) reports and descriptions of NGO educational activities, concentrating on those from Developing Countries.

A major part of this project is to encourage and develop NGOs in their environmental education activities. This will be done by regional "activators" ^{or leverage centres.} Initially there will be one "activator" ^{but we envisage centres developing.} per region. They will be chosen as individual working in active environmental education NGOs. Their tasks will be

- . identifying NGOs with potential in environmental education
- . identify areas within which these NGOs can act
- . facilitate the NGOs' educational activities, by providing
 - ideas for educational programmes

h
rec
no.

Description of the project, contd.

- information on sources of materials
- where possible, personal help and encouragement
- identify other activators within their regions, so that the above points can be more effectively carried out.

A list of possible regions and activators *has been identified during project FP-0301-77-03 and is attached, in appendix 2.*

The following functions will, ^{thus} be performed by the ELC

- 1) Production of the supplement; to include
 - research into and commissioning ^{of} articles on Environmental Education genera
 - editorial work
 - lay-out and printing
 - translation, into French and Spanish
 - circulation
- 2) Co-ordinating the work of the activators, and providing the necessary back-up facilities.

C) THE CHILD & THE ENVIRONMENT international
 The Belgrade charter identifies the need for an/exchange of information in different languages on all aspects of environmental education, both in-school and out-of-school, with due respect for national, cultural and environmental differences. and recommends that 'an international magazine written by students in primary, secondary institutions, based on their environmental studies in their local communities be published This is re-inforced in other recommendations from Belgrade 'in primary-level programmes, emphasis should be placed on both formal and non-formal learning in EE, in close liaison with action projects for the child.'

The importance of environmental education for children is again stressed in the Tbilisi Recommendation 30, "... conscic of the considerable receptiveness of the school-age child, .. which recommends that an "... educational programmes ... uuder the general tithe 'The Child and the Environment' " should be produced, which will "... set out the main lines for the form ulation and implementation of a systematic pãan of action to bring the child into contact with, and give him an awareness the elements that form his natural milieu ...".

Description of the project

This section of the project will provide:

- 1) suggested lesson plans for teachers. These plans will be of an abstract nature, so that they can be interpreted into a wide variety of local environments.
- 2) ideas for activities for children. Again these activities will not be specific. They will not be restricted to the sciences, but will include the arts and humanities, these including the physical and cultural environments.
- 3) "exchange themes", so that groups of children, or individuals can have specific topics to correspond on. Included in these themes will be competitions, written, visual, or scripts for plays.
- 4) addresses of groups, and individuals, that are interested in joining in the exchanges. This list will be circulated with the periodical, and also sent to known child educators such as teachers, scout leaders, etc.
- 5) translation facilities into regional and local languages. This will allow the exchanges to have a wider audience, as many school-age children do not speak their regional language, and would otherwise be excluded.
- 6) more specific teaching packs, illustrated by the outline attached, appendix 3.

The ELC will perform the following functions:

- 1) co-ordination of collection of material for lesson plans and activities. These will be produced by educators in the field, and there will be an emphasis on those from Developing Countries.
- 2) compilation of addresses of groups.
- 3) organisation and sponsorship of themes and corresponding competitions
- 4) organisation of translation services into regional and local languages.

It should be appreciated that the section "The Child and the Environment" is complementary to the "Education Techniques & Guidance Service".

Time table for 1st 12-month period.

1978	July	start of project identification of regional "activators" (identification of 12 groups of students for ELC, Oxfam project) *
	August	Briefings for "activators"; plan of action, devised regionally (production of teaching pack, circulation to groups)
	September	List of NGOs active in EE produced by "activators"
	October	First Bulletin (first exchange between groups)
	November	Circulation of reminders for catalogue returns
	December	Provisional list of NGOs with potential for EE activities
<u>1979</u>	January	Second Bulletin; plus first edition of catalogue (second exchange between groups)
	April	Third Bulletin; second edition of catalogue
	May	(end of exchange - possible exhibitions within participating countries of displays)
	July	Fourth Bulletin; catalogue Assessment of use of resources due to catalogue Reports from "activators" on activities in region

The Environment Liaison Centre was established in 1975 by an international coalition of environmental non-governmental organisations. The Centre is situated in Nairobi so that it can effectively liaise with UNEP, providing a link between UNEP and the NGO community.

In 1976 the ELC, in a joint project with UNEP FP , completed a profile survey of environmental NGOs, identifying over 3000 organisations with detailed information on 1600 organisations. From this information 700 organisations working in environmental education were identified.

The Environment Liaison Centre and UNEP jointly sponsored a project in Environmental Education. The project enabled representatives from NGOs from Developing Countries and Eastern Europe to participate in the Tbilisi conference in Environmental Education. Over half the NGO representatives at Tbilisi were sponsored by the ELC/UNEP project. An NGO post-Tbilisi workshop was held in Geneva, with the sponsored NGOs and other NGOs from Europe. The Geneva workshop recommendations endorse the Tbilisi recommendations, re-inforcing the special role NGOs play in environmental education, and stating that there was a need for greater co-operation amongst organisations working in environmental education, and that the potential of many other organisations should be realised and encouraged.

In answer to the Geneva recommendations, the ELC sent out a newsletter, which provides information on NGO activities and addresses of organisations. The newsletter has been expanded into "Environmental Education Switchboard" which is circulated to over 250 organisations, providing information on NGO and UN activities, and articles on other relevant topics.

Aside from the project which concentrates on environmental education, the Environment Liaison Centre publishes an occasional production "Centre Report", which highlights specific issues, and provides information on UNEP's activities. The "Centre Report" is circulated to over 1000 NGOs.

In 1976 the Centre produced a poster for World Environment Day, which was distributed to organisations, both governmental and not. The poster was sent to all the organisations in the Centre's profile survey, and the response was such that for 1977 another poster was produced, and specific activities were encouraged. For World Environment Day 1978, the Centre has a project to celebrate World Environment Day, a poster competition

has been held, with ~~15~~ of the winning entries being printed and

distributed to organisations around the world. The Centre has produced a World Environment Day newspaper, with information on environmental matters, which will ~~also~~ be circulated to over 3500 organisations. The World Environment Day activities form an essential part of the Centre's non-formal education activities, increasing the public awareness in their environment.

PROJECT PROPOSAL 1.- Ideas.

AIM: Regionalized development, collection and circulation of environmental resources in the Developing World. To be coordinated for the duration of the project by a central organization.

AUDIENCE: Developing Country NGOs working in formal and adult education.

Introduction

The greatest need is for environmental information of direct relevance to local needs, cultures and languages of Developing regions of the world. This project would therefore concentrate on assisting organisations at a local level to develop appropriate environmental information which can be used in the formal education system and for adult education.

In support of the development of local and regionally appropriate environmental resources, environmental information would be collected in each region and, by the central body, from international and Developed Country sources. Local resources would also be collected and catalogues of all the resources available to each region would be circulated.

PART 1: Development of Local Environmental Resources

PURPOSE: To stimulate the development of locally appropriate EE resources in each region.

In each region, local organisations and individuals would be provided with assistance to develop software. The following is a list of possible software:

- Literature
- Films
- Slides
- Tapes
- Posters
- Speakers and teachers
- Exhibitions
- Guided tours
- Radio programs
- Plays
- Puppet shows
- Songs

Methods of Development

Workshops are possibly one of the most useful ways to develop software. The emphasis would be on selecting key personnel from recognized NGOs who would be able to hold further workshops. Leadership training could be a component of every workshop.

The following are examples of tasks around which the workshops could be organised:

- Produce manuals and guidelines in specific areas such as for teachers on how to use the local environment for developing the interest of children in conservation of nature, for women's groups on how to write TV scripts on areas of

Project Proposal 1.

- environmental interest, for NGOs on how to utilize the mass media in educational campaigns of the general public etc.
- . To produce low cost teaching aids for environmental education in schools and a manual for other teachers to do the same.
 - . To develop techniques of using traditional methods of mass media e.g. songs, mime, dance, drama and puppets in environmental education and producing an action plan for taking this to the community.
 - . To develop literacy material for adults in local languages which is interesting to read and includes environmental education.
 - . To develop interesting reading material for different levels of formal education which encourages environmentally appropriate attitudes and gives factual environmental information - with emphasis on local and regional environmental characteristics.

Training courses could be arranged in the following areas:

- . Using audio-visual aids in environmental education.
- . Technical information for the use and maintenance of locally available hardware in environmental education e.g. for projectors, slide-projectors.
- . How to make films, take photos, produce slide-shows etc. for use in environmental education.
- . Setting up of displays and exhibitions and their associated publicity for education of particular levels of school children, or particular groups of adults e.g. illiterate adults, farmers, womens groups.
- . Public speaking and teaching through informal techniques to ad hoc groups such as housewives, village members, playground children.
- . Using the local environment in bringing environmental education into all subjects of the school curricula, aimed at teachers.
- . To teach NGOs how to write scripts for TV on environmental topics, or articles for newspapers & periodicals, or radio programmes

In support of such local activities as those above, the central organisation could provide background material where requested on specific areas. For example, brief booklets on writing for radio and TV could be provided, or lists of examples of planning guided tours of nature reserves could be given based on the experience of organisations within and outside the region.

Project Proposal 1PART 2: Regional EE Resource Collection

PURPOSE (i) : To establish a system of recording EE resources in each region (especially NGO resources). This system would be coordinated at a regional level and records catalogued, published and distributed at a central level. The system should become self-supporting.

A. Regional Coordination

1. The Regional Coordinator. Identify a person, preferably in an NGO, in each region who can coordinate resource collection.
2. The Regional Coordinator surveys existing regional EE resources:
 - (a) in resource centres;
 - (b) in any other organisations e.g. in NGOs or individuals.
3. The Regional Coordinator draws up a list of key resource collection personnel and possible resource personnel in the region. These would be individuals we could maintain contact with and who would be best placed to help the Regional Coordinator with advice on resource collection.
4. The Regional Coordinator organizes the documentation of the EE resources regionally.

Details of regional coordination.

The Regional Coordinator should have at least completed high school education. Preferably be an active member of an NGO. Preferably with experience in documentation.

Surveying regional resources would require collection of information on the following:

- (a) Software.(e.g. literature, posters, slides, films). Obtain catalogues from existing centres and document the availability of the resources;
Identify other resources and arrange their documentation including their availability;
This may require funding for the following e.g. filing cabinet, tapes and pens for labeling, cards, cardboard boxes, and for clerical assistance (suggested minium for an organisation requiring these would be \$750 U.S.)
- (b) Hardware.(e.g. projectors, tape-recorders, cameras). Obtain catalogues from existing centres, and find out the availability of the hardware, technical support and training assistance (e.g. how to operate a projector etc.);
Identify other resources, and arrange their documentation, availability etc;
Availability of spare parts and maintenance.

Project Proposal 1

- . Basis of regional documentation. The Regional Coordinator will be supplied with a manual and a standardized terminology to base the documentation on.

B. Central Coordination

The Project Coordinator will select a EE Resource Consultant. The Consultant should be a qualified and experienced librarian; knowledgeable in documentation, audio-visual aids, and working in the field of education; preferably a Developing Country person with Developing Country experience.

The Consultant will be responsible for:

- (a) Writing a manual for documentation. This will be aimed at educated, but not library trained, personnel in the regions who will be responsible for documenting regional EE resources. It will be in the major languages of the regions. The manual will, for example, include information on the following - a broad definition of EE; numbering of standard terminology; a coding system for resources; details of appropriate technology for necessary storage of resources e.g. of filing cabinets, shelves and boxes.

This manual will allow for revisions using experience gained during the project. At the end of the project the final version of the manual must be comprehensive and useable in Developing Countries as a guide to EE resource collection.

Where regional personnel need to consult qualified librarians it may be necessary to provide additions to the manual with more explanation.

- (b) Establish a central recording system for the regional resource documentation so that it is catalogued, published and circulated.
- (c) The Consultant should be available to advise regional coordinators.

PART 2: (ii)

Channelling of Developing Country EE Resource Information to Developed Countries.

PURPOSE (ii): To make Developing Country EE Resource information available in an appropriate form to Developed Country NGOs.

By the end of the project a system will be set up, including a catalogue, suitable for use in the Developed World but giving information on Developing World EE resources. This might consist of a catalogue of all the software available in each region, selected material could be reproduced and made available from each region on order and perhaps illustrated booklets written on regions in the Developing Countries and their EE resources may be produced and sold.

PART 3: Evaluation of Parts 1 and 2

The following are ideas on what might be included in this section.

Specify what feedback is required from regions on local NGO development of EE resources and on collection of the resources.

Specify what form the feedback will take and how often it will be required.

Have a central system of keeping records that can be used in the evaluation.

The feedback should indicate the strengths and weaknesses of the activities.

Be sure that the records to be kept are appropriate measures of the purposes given for each part of the project.

11 January, 1978.

DRAFT.

Objectives of the Project

Long Term Objectives

The project is intended to encourage environmental education at the regional level, thereby increasing the public consciousness of and concern for the environment.

Particularly, the project aims to facilitate the work of NGOs already working in environmental education, building on the network of NGOs established during the ELC/UNEP project FP-0301-77-03 and to encourage other NGOs to realise their potential in the field of environmental education.

Short Term Objectives

It is proposed to achieve the following:

- provide a service to NGOs already working in the field of environmental education by
 - informing them of sources and availability of materials *and where practical the materials themselves.*
 - providing information on educational techniques, so that they might efficiently use the resources available to them
- encourage an awareness of the environment amongst children, enabling them to comprehend the complexity and inter-dependence of environmental issues, as well as giving them an insight into different life-styles.

N.B. - THIS PROJECT OUTLINE IS ONLY A DISCUSSION DRAFT FROM LONDON TO NAIROBI. CLEARLY IT NEEDS POLISH AND POLICY DECISIONS BEFORE SUBMISSION TO ANY ONE OTHER THAN ELC STAFF AND DIRECTORS.

Description of the Project

The project will be divided into three parts:

- A) an information network
- B) a educational techniques and guidance service
- C) the child and the environment

A) An INFORMATION NETWORK

The Tbilisi conference in environmental education stated in Recommendation 24 "... there is a special need to improve the existing information infrastructure in the field of environmental education, thus making possible within an international information network the dissemination of information on important actions taken at the local, regional and national level

The project will provide a system so that the materials and information can be identified and made available to a wider audience. This will then allow for an assessment of the specific needs in resource development in each region. A simple cataloguing system has been designed, so that NGOs and other organisations can catalogue the materials they produce and the availability of these materials. This information will be collected by the Environment Liaison Centre, and circulated quarterly in a bulletin. The materials will then be supplied from the organisation producing it; ^{although} some materials will be collected by ^{and distributed on request} the ELC. A review and abstract service will be included in the bulletin.

The following functions would be performed by the ELC:

- 1) Design of cataloguing system, such as Appendix 1
- 2) Circulation of system, and collection of data from surveys. This will use the NGOs on the ELC's profile survey as well as the network established in the ELC/UNEP project no: FP/0301-77-03. The survey will be carried out with regional focal points, to provide assistance to the NGOs, and other relevant institutions, and if necessary to visit NGOs in their regions.
- 3) Circulation of data on materials available. This will be included in a bulletin produced quarterly. Included in this bulletin will be an up-dating of the survey, in the form of additional indexing cards, to be returned to the ELC.

Description of the project, contd,

- 4) Production of an abstract and review service
- 5) Circulation of the above information to NGOs and other interested bodies.

B) AN EDUCATIONAL TECHNIQUES & GUIDANCE SERVICE

The Tbilisi Conference in "Environmental Education, in Recommendation 34, states "...to non-governmental organisations that should incorporate environmental education activities into their existing programmes;" reiterating this, the recommendation of the Geneva workshop for NGO co-operation in environmental education states "there is a need for a central organisation to facilitate regional work in environmental education" and "That the communication of knowledge and of actual effective methods tried out in real situations should be facilitated between the generators of such knowledge and methods and the users."

The project will provide a link between these "generators of knowledge" and the users, i.e. the educators, by producing a supplement which will provide the educators with information on educational methods and techniques and include the catalog system described in A) above. The supplement should facilitate the work of NGOs' environmental education efforts.

The supplement will include:

- i) ideas for possible NGO educational programmes
- ii) reports and descriptions of NGO educational activities, concentrating on those from Developing Countries.

A major part of this project is to encourage and develop NGOs in their environmental education activities. This will be done by regional "activators" ^{or leverage centres.} Initially there will be one "activator" ^{but we envisage centres developing.} per region. They will be chosen as individuals working in active environmental education NGOs. Their task will be

- . identifying NGOs with potential in environmental education
- . identify areas within which these NGOs can act
- . facilitate the NGOs' educational activities, by providing
 - ideas for educational programmes

Description of the project, contd.

- information on sources of materials
- where possible, personal help and encouragement
- . identify other activators within their regions, so that the above points can be more effectively carried out.

A list of possible regions and activators *has been identified during project FP-0301-77-03 and is attached, in appendix 2.*

The following functions will, ^{thus} be performed by the ELC

- 1) Production of the *supplement*; to include
 - . research into and commissioning ^{of} articles on Environmental Education *genera*
 - . editorial work
 - . lay-out and printing
 - . translation, into French and Spanish
 - . circulation
- 2) Co-ordinating the work of the activators, and providing the necessary back-up facilities.

C) THE CHILD & THE ENVIRONMENT'

The Belgrade charter identifies the need for an ^{international} exchange of information in different languages on all aspects of environmental education, both in-school and out-of-school, with due respect for national, cultural and environmental differences. and recommends that 'an international magazine written by students in primary, secondary institutions, based on their environmental studies in their local communities be published. This is re-in forced in other recommendations from Belgrade 'in primary-level programmes, emphasis should be placed on both formal and non-formal learning in EE, in close liaison with action projects for the child.'

The importance of environmental education for children is again stressed in the Tbilisi Recommendation 30, "... conscious of the considerable receptiveness of the school-age child, .. which recommends that an "... educational programmes ... under the general title 'The Child and the Environment!' " should be produced, which will "... set out the main lines for the formulation and implementation of a systematic plan of action to bring the child into contact with, and give him an awareness the elements that form his natural milieu ...".

Description of the project

This section of the project will provide:

- 1) suggested lesson plans for teachers. These plans will be of an abstract nature, so that they can be interpreted into a wide variety of local environments.
- 2) ideas for activities for children. Again these activities will not be specific. They will not be restricted to the sciences, but will include the arts and humanities, thereby including the physical and cultural environments.
- 3) "exchange themes", so that groups of children, or individuals can have specific topics to correspond on. Included in the themes will be competitions: written, visual, or scripts for plays.
- 4) addresses of groups, and individuals, that are interested in joining in the exchanges. This list will be circulated with the periodical, and also sent to known child educators such as teachers, scout leaders, etc.
- 5) translation facilities into regional and local languages. This will allow the exchanges to have a wider audience, as many school-age children do not speak their regional language, and would otherwise be excluded.
- 6) more specific teaching packs, illustrated by the outline attached, appendix 3.

The ELC will perform the following functions:

- 1) co-ordination of collection of material for lesson plans and activities. These will be produced by educators in the field, and there will be an emphasis on those from Developing Countries.
- 2) compilation of addresses of groups.
- 3) organisation and sponsorship of themes and corresponding competitions.
- 4) organisation of translation services into regional and local languages.

It should be appreciated that the section "The Child and the Environment" is complimentary to the "Education Techniques & Guidance Service".

Time table for 1st 12-month period.

1978	July	start of project identification of regional "activators" (identification of 12 groups of students for ELC/ Oxfam project) *
	August	Briefings for "activators"; plan of action, devised regionally (production of teaching pack, circulation to groups)
	September	List of NGOs active in EE produced by "activators"
	October	First Bulletin (first exchange between groups)
	November	Circulation of reminders for catalogue returns
	December	Provisional list of NGOs with potential for EE activities
<u>1979</u>	January	Second Bulletin; plus first edition of catalogue (second exchange between groups)
	April	Third Bulletin; second edition of catalogue
	May	(end of exchange - possible exhibitions within participating countries of displays)
	July	Fourth Bulletin; catalogue Assessment of use of resources due to catalogue Reports from "activators" on activities in region

The Environment Liaison Centre was established in 1975 by an international coalition of environmental non-governmental organisations. The Centre is situated in Nairobi so that it can effectively liaise with UNEP, providing a link between UNEP and the NGO community.

In 1976 the ELC, in a joint project with UNEP FP , completed a profile survey of environmental NGOs, identifying over 3000 organisations with detailed information on 1600 organisations. From this information 700 organisations working in environmental education were identified.

The Environment Liaison Centre and UNEP jointly sponsored a project in Environmental Education. The project enabled representatives from NGOs from Developing Countries and Eastern Europe to participate in the Tbilisi conference in Environmental Education. Over half the NGO representatives at Tbilisi were sponsored by the ELC/UNEP project. An NGO post-Tbilisi workshop was held in Geneva, with the sponsored NGO and other NGOs from Europe. The Geneva workshop recommendations endorse the Tbilisi recommendations, re-inforcing the special role NGOs play in environmental education, and stating that there was a need for greater co-operation amongst organisations working in environmental education, that the potential of many other organisations should be realised and encouraged.

In answer to the Geneva recommendations, the ELC sent out a newsletter, which provides information on NGO activities and addresses of organisations. The newsletter has been expanded into "Environmental Education Switchboard" which is circulated to over 250 organisations, providing information on NGO and UN activities, and articles on other relevant topics.

Aside from the project which concentrates on environmental education, the Environment Liaison Centre publishes an occasional production "Centre Report", which highlights specific issues, and provides information on UNEP's activities. The "Centre Report" is circulated to over 1000 NGOs.

In 1976 the Centre produced a poster for World Environment Day, which was distributed to organisations, both governmental and not. The poster was sent to all the organisations in the Centre's profile survey, and the response was such that for 1977 another poster was produced, and specific activities were encouraged. For World Environment Day 1978, the Centre has a project to celebrate World Environment Day, a poster competition has been held, with ~~15~~ of the winning entries being printed and

distributed to organisations around the world. The Centre has produced a World Environment Day newspaper, with information on environmental matters, which will ~~xxx~~ be circulated to over 3500 organisations. The World Environment Day activities form an essential part of the Centre's non-formal education activities, increasing the public awareness in their environment.

Appendix 1.

An information system for EE

There is a vast amount of potential support material for environmental education. One way of keeping track of the material, and making it accessible to a wider audience is through a simple, central index.

Environmental education is about the relationship between man's activities and his environment.

Thus the index would have to specify the activities, the subject, and the spatial scope over which the activities and the subject extends. With these three attributes, which are broken into CATEGORIES, we can describe "Fish Culture in Sarawak"; the subject is Food, the activity is Producing, and the spatial scope is National.

Those 3 categories do not tell us who the material is for, ie who it is aimed at; or what type of material it is. For this we need further attributes, one describing the Target group, or Educands, and the other the type of FORMAT of the material. With these attributes it is possible to identify the material as a book for adults.

As much of the material is describing educational techniques, we must have an attribute for the Teaching Method, and also the Facilities or Equipments described. By these attributes we will be able to describe a paper on teaching Secondary School level children in the Laboratory.

Lastly one attribute that may seldom be used, Time. This will allow us to classify the book "Clean Air - Clean Water for tomorrow's World".

The Steps taken in classifying material are as follows:

Go through the following attributes and their different categories, deciding which category best describes your material. It may be that the material is best described by 2 or more attributes, use them but try keep them number of attributes per category down to a minimum. Some attributes may not be applicable, leave

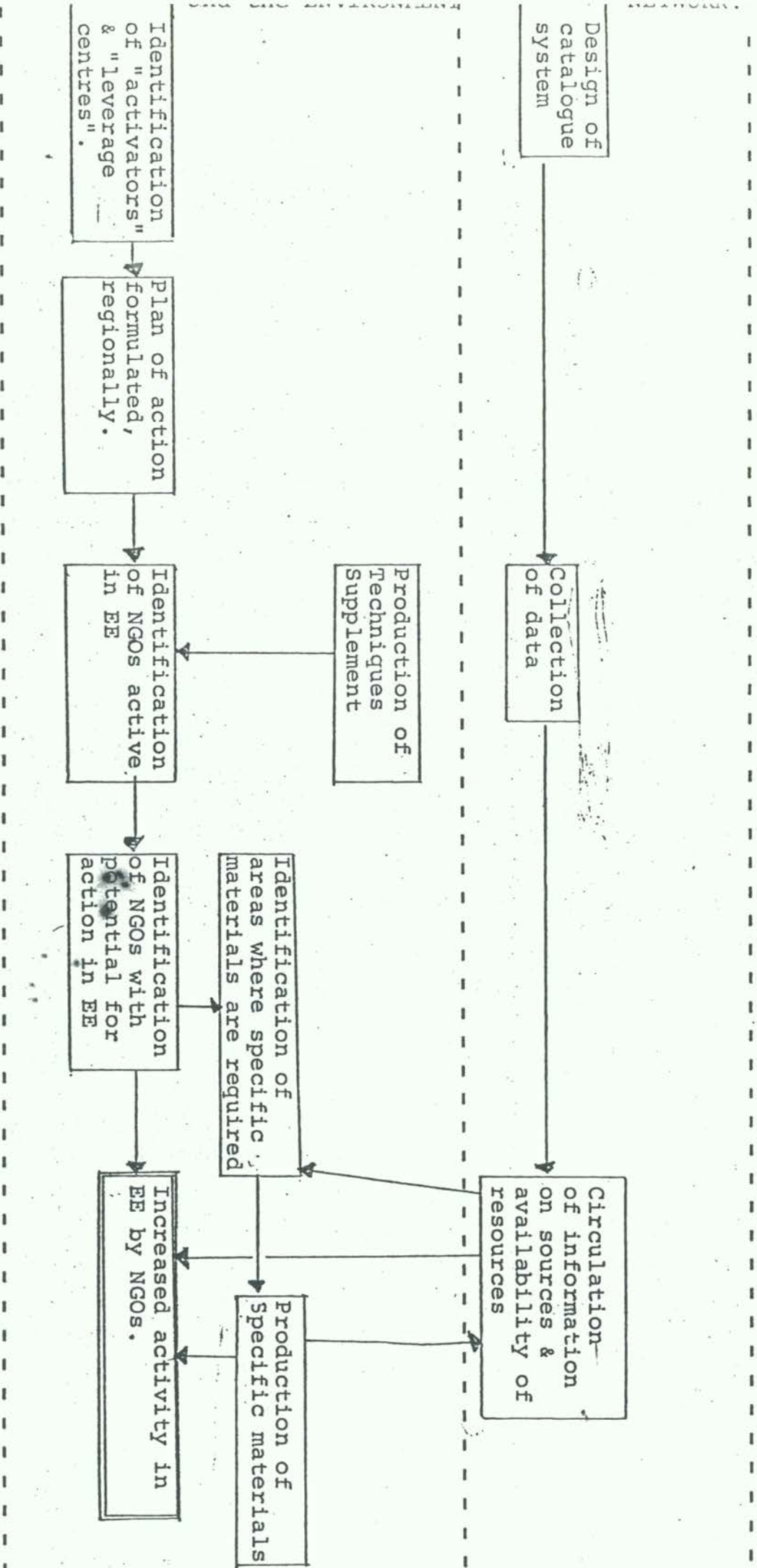
A. SUBJECT

- 1 Land - including use of land, land reclamation, despoilation of land (ie desertification, soil erosion), rural and regional planning.
- 2 Animals - including wildlife, endangered species, livestock, pests fisheries.
- 3 Plants - including forests, farming, botany.
- 4 Water - including pollution, supplies, purification, irrigation, floods,
- 5 Air - including pollution, also noise pollution,
- 6 Energy - includes non-renewable sources of energy, all aspects of energy consumption and generation.
- 7 Climate - includes impacts of climatic effects, such as hurricanes
- 8 Human Health & Well-being
- 9 Development
- 10 Technology

B Level of Education

- 1 Pre-school
- 2 Primary school
- 3 Secondary school
- 4 Higher education (universities, colleges, etc)

Chart of Activities for Education Project



- B Level of education, contd.
5 Training of teachers
6 Training of professionals
7 Training of workers
8 Out-of-school youth i) 6-13
9 Out-of-school youth ii) 13-19
10 Non-formal adults

- C Format
1 Books- general
2 Books - for schools, ie text books
3 Journals, periodicals
4 Leaflets
5 Posters, wall-charts
6 Films
7 Slides
8 Tapes
9 Film-strips
10 Plays, puppet-shows, scripts
11 Exhibitions
12 Speakers, teachers -
13 Teacher's guides

- D Activities/Operations
1 Residing
2 Working
3 Taking Leisure
4 Producing
5 Consuming
6 Gathering information
7 Exchanging information
8 Maintaining health
9 Moving about

- E Spatial scope
1 House and garden
2 Neighbourhood, Village
3 District
4 Town/City
5 Sub-national, Provincial
6 National
7 Regional, International
8 Global

- F Teaching Methods

- G Facilities

- 1 Individual equipment
 - a Stationery (paper, pencils, paints, etc.)
 - b Laboratory equipment
- 2 Class equipment
 - a Demonstration equipment (blackboards, charts, etc.)
 - b Laboratory demonstration equipment
 - c Books, libraries, etc.
- 3 School facilities (buildings, playgrounds, etc.)
- 4 Extra mural facilities
 - a Nature study centres
 - b urban surroundings
 - c rural surroundings

Possible regions:	Possible activators
Caribbean	Jill Shepard - caribbean Conserv Assoc.
Central & North Latin America	Adelaida Chaverri - ASCONA
Southern Latin America	?
North America	
West Europe	
East Europe	
North Africa	Faycal Ben Hassine Bey
West Africa	?Liberty Mhlanga
East Africa	Wildlife Clubs of Kenya
Southern Africa	?
West Asia	Suheyl Kircak
Central Asia	Desh Bandhu
South East Asia	Irene Fernandez
Japan & East Asia	?
Pacific	Uday Raj
Australia & New Zealand	

The regions are smaller than those usually chosen, so that the activator within each area might be able to travel, and there is a greater chance that he/she would speak the local languages of their area. As one of the tasks of the activators is to appoint local activators, hopefully the regions will become even smaller, and a process similar to a chain reaction will magnify the initial efforts.

Appendix 3 - Suggested teaching Pack.

Subject:- FOOD - Production and consumption patterns

Technique:- Exchange.

- Aims
- 1 To examine the uses of natural resources within different cultures; to promote an understanding of inter-relationships and to illustrate the inter-dependence of, and effects on, nations through the uses of natural resources and the effects of these exchanges.
 - 2 To stimulate action, no matter how small, which will encourage a more balanced and careful use of natural resources within the one world.

The topic chosen to illustrate the inter-dependence is FOOD, particularly its presentation, ie the packaging, transport and cooking, the fuels used in the different processes, and their necessity.

The pack is aimed at the 9-13 year olds, although it is hoped that there will be sufficient scope within the topic to extend it to older groups.

The method the pack uses is an exchange between the children on related topics, so that they can see where the materials come from, and how they are used. These exchanges will be between similar groups, in size and age, and will take place at the end of an "In-depth" study, except for the initial exchange which will act as an introduction.

Four regions were chosen - Africa, Asia, Latin America and Europe, and the countries within those regions Kenya, Malaysia, Caribbean, and UK were suggested for the following reasons -

- They are all English-speaking countries, so hopefully the students would be able to communicate directly with each other
- communications between these countries are reasonably efficient and cheap
- there is a history of trade between these countries, although the trade between 2 Developing Countries may be through an industrialised country, ie export of raw material to industrialised country, production of manufactured goods, export to another (or the original) Developing Country
- we have contacts in those countries
- there is a possible source of funding from Commonwealth oriented institutions.

Three groups of students would be chosen within each country, and each group would exchange with another in a different region, eg. Malaysia 1 to Kenya 1; Malaysia 2 to Caribbean 1; Malaysia 3 to UK 1; Kenya 2 to Caribbean 2; Kenya 3 to UK 2; Caribbean 3 to UK 3.

The pack has been designed so that it can be divided into 3 units, of suggested length 6 weeks, or one ½-term. The amount of time spent on the project is up to the teachers, but it is suggested that not less than 2 half-days per week is used.

It is vital that the teachers running the project should have communicated before the classes start, so that they can decide how the classes should be paced, and have some back-ground information on the partner's class.

The aims will be more easily realised if the projects are personalised. In choosing the schools we will try to place them in areas that are directly affected by the export of import market, ie near the factories farms or docks.

Unit 1

Teacher communication: description of class- number of students, age range, sexes, urban or rural, etc.

- . teacher's own aims, aspirations, aside from those stated in pack.
- . time for each part of project
- . other topics that could be relevant to project

Class Activity: Description of food consumed in an average day.

How was produced? Was it grown in your garden?
 Was it packaged if and when it was bought? How?
 Was it cooked?

It is suggested that this information is relayed pictorially by a graph, a collage of food and its wrappings, or drawings.

Drawings/description of class, either individually or as a group.

THIS SHOULD BE SENT TO THE PARTNER GROUP AS AN INTRODUCTION.

In-depth study: Background - Division of food into types, eg proteins, carbohydrates, fats, etc.
 Was it primary or secondary food, ie was it food consumed or fed on anything prior to you eating it, like grain to cattle?
 Map where the food you consume in a day comes from, include the packaging and fuel used before it reaches you.

Introduction to the partner group. Comparison study, relating to known country, towns. What do you expect the life of the partner students to be like (food, transport, housing)? What communication links are there between your 2 countries?

Concentrating on your partner country -
 What do we get from there?
 Why do we get it from there?
 Do we pay for it in money or goods?
 What sort of goods? Where do they come from in our country?
 What do you think we import? } Teacher's notes will have this information
 What do you think we export? }

Unit 2

Analysis of communication from partner group: Was it different from what you expected? Why and how?

Concentrating on pre-selected items, (facts included in teacher's notes) ie paper from wood pulp from Malaysia, or rubber from Malaysia; tea or sisal from Kenya; Bauxite from Jamaica; lorries or heavy machinery, tyres, clothes from UK

Draft of pack, contd.

Unit 2

Exported Item

Imported Item

Is it manufactured or raw?
Where is it produced? (if
manufactured, where do the
raw materials come from?)
Did we always have this
product to export?
When did we first start
exporting it?
What do you think the other
country used before they
received our export?
How is it transported?

Is it manufactured or raw?
Where is it produced? (if manufac
tured, where do the raw materials
come from?)
Did we always import this product
When did we first start importing
it?
What did we use before we started
importing it?
How is it transported?

THIS INFORMATION SHOULD BE COMMUNICATED TO THE PARTNER GROUP

Unit 3

Study of proposed Action

Either

Do we Waste any of the import?
What will happen to us if we cut down the waste?
How could we cut down the waste? (re-cycling, production of other produ
What will happen to the producers?
To their lives, employment, etc.

Or

Do we need to import/export this product?
What will happen if we stop?
How would it effect us?
How could we manage without the import?

WHAT DO YOU THINK YOU COULD DO TO STOP UNNECESSARY WASTE, EITHER OF
THE PRODUCT ITSELF, OR OF THE FUEL, OR PACKAGING USED IN MOVING IT
FROM ONE PART OF THE WORLD TO THE OTHER?

THESE IDEAS SHOULD BE SENT TO THE PARTNER GROUP