Colomba

Esta revista ha sido impresa por el ayuntamiento de la
La Plata, Países Bajos.

Composición: apacoare

Fotografía página delantera: Cuzco región.

The Global Forum for Environmental Education (El
Fórum Global de Educación Ambiental) es una
publicación de Creadores de la Educación Interna-
tional. El Foro será una publicación cuatrimestral.

Elaboramos a todos los contribuyentes, artículos,
dibujos, y fotos. Invitándoles encarecidamente a que
nos hagan sugerencias. Si desea información o
participar en cualquier de las posibilidades arriba
mencionadas, deberán dirigirse a:

The Global Forum for Environmental Education
C/o CERNO

Manuscript B
1815 GM Alkmaar, Países Bajos

Se permite la reproducción de la revista. Agregaremos,
menos, sin embargo, que se hiciere referencia, en todo
da la revista.

La Junta editorial está compuesta por:

Jan Apelbecker, Países Bajos, editor de la revista

Joke Val, Países Bajos, secretario de la revista.

Nobi Abayomi, Nigeria, editor.

Frits Gravenberch, Países Bajos, editor.

Raymond Jewett, Ecuador, editor.

Chris Leinster, Países Bajos, editor.

Amalia Bouch Beaudin, España, editor.

Andorra, España, traductor.
From the editor.

Somewhat later than I expected we finished the second issue of the Forum. I hope everybody will like it. The quality is better than the first one.

From the questionnaires we received during the conference in Bristol it appears that you would like to have articles on successful environmental education projects. This Forum contains two of them. I would like to receive more. So please send me more articles for the next issue, preferably before January 1.

You may send them to Spain, we will translate them for you.

We also received some material from students. We hope to receive more from you.

The conference in Bristol was a great success. I hope the conference in Peru will have the same impact. Richard’s article gives a good impression for those who missed it.

We encourage everybody who receives complimentary copies of this issue to subscribe and contribute to the Forum. The annual subscription fees (at 15/-, individuals £ 9.00, schools for four copies of each issue and £ 65-, institutions, library, business) are kept at a minimum, but if you cannot afford it you can request a subscription fee waiver or reduction. Please bear in mind that we are having trouble cashing the cheques that are being sent in. Hence, we urge you to send us international money orders preferably made out in Dutch guilders.

Again we are excited to present to you contributions from six different countries and four different continents. I hope reading the second issue will give you as much pleasure as it gave us making it.

Jan Apotheker, chief editor.
The fourth Caretakers of the Environment International Conference

By Richard Parish

Abstract: A short report is given about the activities that took place during the 6th Caretakers conference in Bristol. The 100 delegates from 33 countries visited Bristol, and studied various aspects of the environment and exchanged views and ideas concerning environmental education with each other.

Elaborado: Se informa brevemente acerca de los acontecimientos que tuvieron lugar durante la Conferencia de los Caretakers en Bristol. Los delegados de 33 países visitaron Bristol y estuvieron interesados en varios aspectos del ambiente y intercambiaron opiniones e ideas referentes a la educación ambiental.

The fourth International Conference on environmental Education for Secondary School Teachers and Students was held in Avila between 25 and 29 June 1979. It was attended by 100 students and teachers from 33 countries. The conference was a successful culmination of two years' work for the huge number of sponsors and supporting agencies. Without a major sponsor and with no governmental underwriting the conference organizers obtained financial support and assistance from companies, industry, government, environmental organizations and educational organizations at local, national and international levels. The organizers are especially grateful to the many individuals within these organizations who gave not only support but enthusiasm and personal commitment.

The real drama for many delegates started in the week preceding the conference: availing tickets from the UK, with handling being arranged at the last minute. The organizers had to rely upon the diplomatic bag of the Foreign Office in London to deliver the tickets. Such was the determination of the delegates to get to the conference that the Zimbabwe, who had to return home from which they were booked, refused without them, due to non-delivery of tickets, managed to re-arrange their flights via Harare, Mauritius and Moscow to arrive after two and a half days travel. The delegates from the Philippines refused to allow a major stops to prevent them from arriving in England, albeit not until the last day.

Organizers and delegates were heartened by the warm hospitality afforded by the parents and friends of Churchill School.

The enthusiasm, humor and quality of the delegates became apparent when the exhibition hall began to fill with a stunning variety of top quality projects, displays and textiles, from around the world. The excitement of the evening was quickly assuaged by the Under-Secretary of State for Education, Mr. Alan Howarth, whose address to delegates emphasized the importance of environmental education and the lack which lay ahead. After the laughter of the evening many delegates found sleep difficult, despite the long and arduous journeys experienced earlier in the day, and chose to dwell upon the myriad of new contacts and ideas they had experienced during the evening. Visiting sponsors were so impressed with the co-operation and friendship shown by all that they could not believe that delegates had only met for a mere six hours.

The official opening on Tuesday morning at the Playhouse Theatre in Weston-super-Mare, was by Jonhathan Porritt whose keynote speech elaborated on the conference theme "Environmental Conflict and Co-operation". An appreciative and attentive audience gave Jonathan a rousing applause. The need for a balance between industry and environment was advocated by our Whitting from British Gas. Ever concentrated on the efforts made by industry to achieve industrial development whilst ensuring that environmental damage is kept to an absolute minimum.

The next 2 days involved numerous visits into the local environment where teams of teachers had prepared activities designed to present environmental issues in an exciting and inventive format. These visits included studies of various as nuclear power, food manufacturing and industries.

Even though work was important, the organizers did not fail in their duty to develop a holistic approach to the delegates visit. Firstly, delegates were exposed to the delightful culinary delights of traditional English Fish and Chips. The following evening after extracting buses from a major traffic jam, even by Bristol standards, delegates were able to marvel at the artistic skills of David Sheppard at a special evening arranged for delegates and...
Ecology Workshop 00

The following are some of the thoughts of students of the summer language bursary program in conjunction with second language learning in traditional literacy area's these students from Quebec are participating in ecology workshops. Students and teachers alike recognize the importance of earth literacy. Kate Graves, Halifax, Nova Scotia.

Gratitude

Nature, a beautiful thing that man has abused since his beginning...
And now we regret this influence.
Nature gave all to us and we— we gave just pollution.

Wake up

Life without life
Is not a life
The natural environment is alive
So life without this is not a life
It's time for us to stop this LIFE'S destruction
If you want to stay alive
Dave Lacomette, July 13, 1990

Untitiled

Do you know the earth?
Do you have a heart?
If you can say "Yes" to these questions
You can stop polluting.
Marie-Dominique Cote, July 1990
Environmental education in Canada.

Environmental education is extremely important in every country of the world. It holds the key to a healthy future for life on earth. Many feel that environmental concepts and ethics should be taught within every subject area. We agree, but it is also important that the students have a chance to study environmental issues in greater depth, perhaps in a separate course. Such separate courses are established in various parts of Canada. They are not mandatory, but they can be taken as optional courses by students during senior secondary school. Our school, North Toronto Collegiate, has offered such courses since 1974; other schools have slowly begun to offer them also. The courses are full courses running throughout the entire school year and having the same number of hours as core regular subjects, such as mathematics and history. At our school, approximately 175 students between the ages of 16 and 19 take these courses every year.

After a basic introduction to ecology, students go on to study a wide range of topics including, acid rain, endangered species, water quality, forestry, toxic chemicals, solid waste, population growth, energy and the conservation society. Each topic includes a wide range of subtopics involving causes, results and solutions. Science forms the basis of each study, but we usually end by discussing people’s attitudes and values related to the problems and their solutions.

Taking Positive Action.

Students often feel that the problems are caused by both industry and government. It is sometimes difficult to recognize, and admit, that we, as individuals, are often the real cause. It can be depressing to learn about the many environmental crises humans have caused. Individuals often feel helpless to solve the problems. It is also easy to suggest that business and government have to be the ones to do something. They do, however, individuals can, and must, also take steps towards a healthy planet.

One of the most significant aspects of the environmental courses at North Toronto is that students are given many different opportunities to take positive action to make the earth a better place. Some of the ideas come from the teacher, but many come from the students themselves.

Projects carried out.

These are just some of the on-going projects carried out by our environmental students: newspapers, bottles and cans have been collected for recycling since 1972; fine quality paper has been collected for recycling since 1976; we have planted trees and added much to them every year since 1963; we’ve been cleaning up various parks and streams since 1981; we have raised money for endangered preservation and other environmental projects and also supported the annual care and feeding of four Canada Geese at a facility for breeding threatened species in captivity. We also help educate elementary school pupils by acting as leaders at special environmental events and educate the general public by creating displays for public places or distributing information on environmental issues to homes.

Having a Vision.

Public Focus is a non-profit, non-governmental organization involved in various aspects of environmental education. Its staff got the idea for Vision 2020. Vision 2020 is a program in which secondary school students throughout the province of Ontario (in Canada) discuss sustainable development and set goals they want our province to reach by the year 2000. Background materials are made available by Public Focus. They had previously solicited these materials from government agencies, industries and environmental groups.
A total of 6000 secondary students actually participated in 430 groups called focus groups. Each focus group was asked to concentrate on one of twelve topics illustrated in our display at the fourth Caretakers of the Environment conference. Our group at North Toronto Collegiate chose Natural Habitat and Wildlife. We were then linked with 7 other focus groups working on the same topic, forming a network. Each group created three goals for the year 2020. We included a rationale with each goal. Goals written by all groups within a network were shared and criticized. To be valid, each goal had to promote co-operation among various special interest groups involved with the issue rather than create conflict. Through a voting process, each network chose the best goals written for each of the twelve topics and published them in a book which has a chapter devoted to each issue (Visions 2020).

**Visions 2020.** Ontario's Youth, Ontario's Future was published in April 1990 by Public Focus and was formally presented to the provincial government. Our school's group is especially proud because the book contains two goals from our school, as well as poetry, artwork and a closing essay also submitted by our students.

**Goals**

**Goal #1: Cradle to grave Chemical Management.**
In most industrialized regions, Ontario has many companies which create chemical products/wastes which have devastating effects on wildlife and natural habitat. Yet, these effects often play a small role in product research and development, and companies remain relatively unaware of the pathways taken by products/wastes they produce. Even inevitable chemicals can cause irreversible damage. By the year 2020, only companies which demonstrate responsible cradle to grave chemical management plans would be permitted to produce, distribute, use and dispose chemicals. Such management would dramatically reduce toxic contamination of habitat and wildlife.

**Goal #2: Losing Forests, Saves Wildlife.**
Forest loss is Ontario's most valuable resource. When they are harvested, the wildlife habitat they once provided is lost. Neighboring aquatic communities are also harmed by increased soil erosion. Forest do not regenerate quickly on their own and current efforts at reforestation by industry and government are weak. We will always need to use our forest resources, however, we must do it wisely.

By the year 2020, Ontario must have an enlightened public and government which will reduce the need to destroy forests by implementing extensive recycling programs. Proper forest management policies, concerning both the initial harvesting quotas and replanting programs, must be established and enforced.

**Visions 2020.**
The Visions 2020 focus group at North Toronto chose the topic Natural Habitat and Wildlife because we felt that we could relate well to these things. Ontario, the province in Canada in which we live, is extremely rich in wildlife and natural habitat, such as wetlands, but these areas are threatened because of spreading urbanization.

Through the goals each school wrote, we tried to present environmentally sound solutions to these problems in a manner feasible to both governments and industries in the hopes of gaining their co-operation.

In September 1990, the Visions 2020 project began again but this time it includes secondary schools from across our entire country of Canada, rather than just our province of Ontario. The goals will relate to our entire country.

There is also a plan for Visions 2020 to become a global project starting in the fall of 1991 or 1992. We encourage you to be part of this global project. Public Focus Canada will organize the program but we need the participation of many countries. The program involves students thinking and writing about the kind of world they want to have in the year 2020. The students must also write goals which will have to be reached to obtain the world they want to have. The final product will be a book published by Public Focus. It will contain the global environmental visions for the year 2020 written and illustrated by students of the world.

**References:**
Deep in the depths  
By Inês, 8th form.

The inhabitants of the sea held a meeting at Mrs. Whale’s. They wanted to discuss a terrible creature that doesn’t live in the water but pollutes it in a frightening way – MAN.

Mr. Octopus, the chairman, started the assembly: “My dear fellows of the depths, I came to inform you all — though it seems unnecessary to me, we are all aware of it now — that something must be done against the pollution of our homes. And above all something must be done against the cause of all this— MAN. This is all I have to say.”

Let’s listen to our dear hostess Mrs. Whale now: “As pointed out by my colleague Mr. Octopus, something must be done to avoid the destruction of our future. I suggest we should take some measures accordingly. First, we must be in constant alert to stay away from our enemy. Then those of us who are big enough should be placed in position to give alarm of any possible discharge of toxic waste in our beautiful waters. They should try to avoid the discharge at any cost. Thirdly, we should take a final measure for our own protection. We should abandon those zones where any spill of oil has occurred. Thus I’m sure, we’ll be able to live in better conditions. That’s all I have to say.”

The whole community of fish applauded the whale for this wonderful speech. They were happy to listen to the words of wisdom of Mrs. Whale. They all promised that with a short time all these measures would be accomplished by the WFA (World Fish Association).

Unlitled  
by Claudia, 8th form.

Mr. Salmon, who was standing in the street, casually met Mrs. Sardine and greeted her: “Hello my dear friend,” he said “How are you?”

“Ah, fine, thanks and you?”

“Well, I’m not in very good shape. I feel strange, in fact.”

“What have you been doing?”

“I’ve been around the cities,” Mr. Salmon answered and he felt angry (Why an earth was she asking such a question?)

“Everything is very clear to me now,” said Mrs. Sardine. “So you didn’t know that near the big cities there are oil pipes pouring a lot of filth into the rivers?”

“As a matter of fact I didn’t,” answered Mr. Salmon. “And where does this trash come from?”

“Most of it comes from factories. You shouldn’t pass nearby. It’s very dangerous. You’d better see a doctor.”

“Should I see Dr. Oyster?”

“Oh, yes, definitely, he’s a wonderful doctor,” Mrs. Sardine agreed.

At the doctor’s, Mr. Salmon explained his problem and told him everything he had heard from Mrs. Sardine. This helped Dr. Oyster a lot. He quickly came to a conclusion: “I have no doubt. You are affected by this disease—pollution.”

“What shall I do? Can you treat me?”

“Well first you must avoid those drains. If it wasn’t for the human race of this would have happened. For many years we have lived in peace and quiet, now we must be very careful.”

When leaving the doctor’s office, Mr. Salmon couldn’t help thinking of his situation. Mrs. Sardine was in the waiting room. She was frightened by the look on Mr. Salmon’s face. He looked so pale.

“Is it serious?” she asked. “Is it curable? What did the doctor say?”

“Take it easy,” he said. “My problem is pollution. It’s serious all right. If Man doesn’t do anything about it, we’re lost.”

“And so are they?” Mrs. Sardine shouted.

“You are absolutely right. Now tell me where did you learn all that!”

“In the books, man, in the books,” said Mrs. Sardine as she walked proudly away.
A survey of the perception of global environmental issues and action among members of Caretakers of the Environment International.

By Yomi Nobi

Abstract. An investigation of the extent to which members of Caretakers of the Environment International appreciate their role as custodians of the environment was made. 85% of the teachers and 75% of the students believe that their environmental actions are influenced by their knowledge of global environmental issues. The new environmental paradigm theory (1983) is suggested as a framework for secondary school environmental education that will enable the habit of thinking globally and acting locally to protect and preserve our common future—planet earth.

Introduction.

Over the past two decades, people in both developed and developing countries have become more aware of environmental issues. This growing environmental awareness has been spearheaded by the activities of issue-oriented organizations such as the Sierra Club, Greenpeace, and Friends of the Earth. None of these is specifically oriented towards targeting young people as a resource for achieving environmental goals.

Teachers and students provide great hope for improving and protecting the environment through environmental education (Nobi, 1980; Miles, 1975). It was the recognition of the importance of teachers and students in protecting and enhancing the environment that led to the birth of the Caretakers of the Environment International in 1980.

The goals of the Caretakers of the Environment International (Lowell, 1989; Nobi, 1989) are generally reflected in the planning, structure and activities of the annual conferences. A key goal of the conferences is to enhance the skill of thinking globally and acting locally to protect the earth's environment. It is assumed that the extent to which this goal is achieved among the members of Caretakers of the Environment International is a reflection of their perception of global issues and their local activities. Based on this the extent to which this goal is being achieved is here examined.

Methodology.

Out of the 225 participants of the June 1989 conference 150 were selected in such a way as to have an equal number of teachers and students as well as a representation of most of the 35 countries at the conference. A four part questionnaire was designed to gather relevant data.

Results and Discussion.

Results and discussion of the responses are presented as they relate to the questions made:

Question 1: What global environmental issues do Caretakers perceive as important?

67% of the teachers and 77% of the students perceived global warming as an important environmental issue while 16% of the teachers and 24% of the students perceived conservation of wildlife as an important global environmental issue.

The data collected suggest that according to the participants the four most important global environmental issues of the decade are global warming, deforestation, waste management and overpopulation. It is noteworthy that the four global environmental issues that members of Caretakers of the Environment International perceived as important were among the environmental challenges of the decade on the UNEP agenda.

Question 2: To what extent have Caretakers participated in, or organized environmental education seminars and workshops?

A majority of the teachers (76.9%) participated in environmental education seminars or workshops for teachers and/or students during the period of 1980–1989. A noticeable trend from the available data is that the
sample’s participation in environmental education seminars increased over the years. This trend suggests that members of Caretakers are interested in improving their environmental knowledge, skills and attitudes through a variety of options. Also this reflects growing environmental awareness of the new paradigm in society (1985). However only 30% of these teachers and only 5 individual students had organized seminars or workshops in their communities. This result suggests that students’ environmental activities may have focused on individual or group research projects for classes rather than on involvement in environmental action in their communities. There seems to be a need for both secondary school teachers and students to organize more environmental education seminars or workshops on global and local environmental issues for the community. It is important to make use of the multiplier effects which can be achieved when people are exposed to such environmental concepts and led into appropriate local action.

Question 2: How do members of Caretakers of the Environment in the International perceive actions taken to solve or reduce global environmental problems?

Most of the actions taken to solve or reduce environmental problems were thought of as legislative and technological and only a few as educational. This perception should be reversed. Environmental education can become a driving force for action or change once it becomes an integral part of teaching and learning in schools and in communities.

Table 3: Classification of Caretakers Perceptions of actions to solve or reduce global environmental problems

<table>
<thead>
<tr>
<th>Environment</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 Legislation/policy</td>
<td>25 Technological</td>
</tr>
<tr>
<td>20 Educational</td>
<td></td>
</tr>
</tbody>
</table>

Members of Caretakers of the Environment in International feel that non-governmental organizations had a world-wide impact on environmental problems. For example, global non-governmental organizations have influenced African governments to make policy statements to protect the environment. However, most African governments are very slow in translating environmental policy statements into substantive actions that will control pollution arising out of poverty and development. There is a need for environmental activism in Africa countries by community supported non-governmental organizations similar to those who gave birth to the first “Earth Day” in the United States in 1970.

Question 3: To what extent have Caretakers’ knowledge of global environmental issues influenced their local environmental actions?

65% of the teachers and 74% of the students’ local environmental actions were influenced by their knowledge of global environmental issues. This suggests that knowledge of global environmental issues is vital for quality of environmental thinking.

Furthermore, Caretakers’ knowledge of global environmental issues seems to have influenced the way they work with the students. Many teachers reported that they have developed and adopted new strategies for teaching at the secondary schools as a result of their environmental knowledge. 69% of the teachers and 67% of the students not only consume resources more conservatively, but also use reusable resources where feasible.

A few of the participants responses are quoted below in order to bring out the flavour of their meanings.

“I teach geography and I try to look at all levels from local to global, European and world context.”

“I never use plastic bags, or any other disposable things.”

“My environmental work actually raises my life and creates a good effect, the more I learn the more I do.”

“I am a member of active environmental organizations both at work and in my private life.”

83% and 76% of the teachers and students respectively seem to have been able to translate their knowledge of global environmental issues into positive, local action.

Above all, it appears that the Caretakers’ knowledge of global environmental issues influences the manner in which many members of Caretakers conduct themselves in all aspects of life. They care for the environment in a manner similar to the way a parent cares about a child. Finally, the sample of teachers and students who participated in the third International Environmental Education Conference in Oak Park, Illinois, from June 24-30, 1989, seems to have a strong moral commitment regarding the necessity to protect the local environment. This conviction may have developed from local, national and global concern for the environment.

Conclusion:

It is believed that the Caretakers’ awareness of, and concern for the environment, arose out of their experience with global and local dimensions of the environment. The challenge for them now is to use their abilities to promote the dissemination of information on the environment and make a more meaningful experience of the environment.

It is important to stress the major findings in this study, i.e. that members of Caretakers of the Environment International actually do think globally and act locally. 62.5% of the teachers and 75.6% of the students gave specific experiences of their ability to translate global environmental knowledge into positive local environmental action. It is reassuring to note that the few members of Caretakers that could not translate their knowledge into positive local environmental action, expressed a desire to acquire further knowledge about the ways and means of engaging in local environmental action.

One participant put it like this:
I am not sure how to go about it, which parts to focus on, who to get in touch with, however, maybe after the Conference, I will have more success.

This desire to help is a sign of hope for the realization of the aims of Caretakers of the Environment International.

Finally, Martin Luther King looked at changes in the world and observed:

"Through our scientific technological genius we have made this world a neighborhood, like our minds and spiritual goals, we must make it a brotherhood.

As one looks back at the Oak Park Caretakers of the Environment Conference as a participant, one recognizes the neighborhood and brotherhood which are necessary for more successful stories from Caretakers of the Environment International. As long as these elements are present, Caretakers of the Environment will be able to continue to provide secondary school teachers and students an opportunity to enjoy caring for the environment.

References:


COMPETICION MUNDIAL

LOGO PARA UNA BOLSA REUSABLE

UNEP invite a Caretakers of the Environment International a proyectar un logo para una bolsa reutilizable.

El logo tendrá que:
- reflejar los objetivos de los Caretakers of the Environment International
- ser adecuado la idea de ser un Caretaker: proteger el ambiente, conservar recursos y evitar daño.
- ser dibujado en color
- ser dibujado sobre una hoja de papel de 30x20 cm
- ser hecho de medio papel

Se requiere la información siguiente en un pliego manual: nombre y apellidos del proyectista; nombre y contacto del instituto; explicaciones breves del sentido del logo.

Recuerde: la bolsa reutilizable probablemente será hecha de una materia natural como algodón o yute. Sería un verdadero producto ecológico que puede ser usado de manera sostenible.

Debe tener grandiosas que pueda continuar la compra.

Los proyectos que serán retenidos que ganen en todo el mundo quedan liberado la bolsa reutilizable por donación que van.

Entre dos copias del logo a: Isabel S. Abravanel

It must arrive at the above address by January 1, 1991.

It must arrive at the above address by January 1, 1991.

Keep a copy of the logo. None of the logo's will be returned.

Five logo designs will be chosen by the Caretakers of the Environment International. The United Nations Environment Program will make the final choice.

It must arrive at the above address by January 1, 1991.
Environment and Poverty

By Eduardo Gil Mora

The Global Forum for Environmental Education Volume I Number 2 Page 12

One of the main problems our country (Peru), and more specifically, our region (Cusco Mountains), faces at the present day, is to meet the needs of the population without destroying the basic resources, i.e., the environment from which we get the elements to fulfill those needs.

The growth of the population, without proper planning, causes a series of environmental problems and hinders development. We need to meet the most primary human needs if we are to avoid the environmental consequences of the population growth. The only way to break the vicious circle of poverty and population growth would be to carry out an adequate socio-economic development. Therefore the policies of development will have to bring together the population and the actual resources. Some areas like La Convención, Madre de Dios, and others, will need to start a self-sustainable development in order to restrain the impact of the population on the ecosystems.

The pressure on agriculture due to the increase of the population causes a considerable shortage in the food production required to cover the demands of the population. Since 1950, Peru has been undergoing an accelerated process of urbanization with the population concentrating in a few cities. This effect is due to rural-urban migration and other economic and socio-political factors. This phenomenon has produced a severe environmental impact, such as deforestation and slash and burn agriculture which affects the tropical forests and increases the risk of floods and landslides, as is happening now in the Cusco mountains.

There are many examples that show how these short-term benefits cause long-term environmental damage which in the long run, reduces food production.

But none of the environmental problems are due to a deficient development. Thousands of people in our region cannot satisfy their primary and basic needs such as food, housing, clothing and health care, and others do not have access to primary education or regular work. This situation is not only unbearable from a humanitarian point of view but it has at the same time serious environmental consequences. It causes the destruction of forests, the loss of arable land, the decrease of the productivity due to deforestation and diseases of the people and the permanent pressure on the fragile ecosystems. There are the most significant consequences of the pollution caused by poverty, which on the whole are as important as the ones caused by industry: both lead to a rapid depletion of the basic natural resources. Many of the problems of human settlement also have their origin in the lack of proper development.

The spreading of poverty generates patterns of human behavior which are environmentally dangerous. There is a continuous degradation of soil, water, forests and other resources. The dependence of the peasants on wood to obtain fuel is an example of the relationship between poverty and environment. In a peasant's home, wood is frequently the only source of energy for cooking and heating. The cutting down of trees and bushes results in erosion of arable soil.

The pressure of a life of subsistence can force the peasant to cultivate marginal lands intensively year after year in the same way. The water used does not have the minimal health conditions and therefore it becomes a transmitter of many water-related diseases which are most prevalent in the slums of our region.

In the urban areas the inhabitants of these slums, deprived of access to the basic services like water, waste disposal sewage, etc., are forced to break the city water pipes in order to get the water they need. The humiliating life conditions in such shanty towns demand urgent action, not only in the name of social justice, but also because those areas can become a source of diseases such as salmonellosis, parainfluenza, hepatitis, etc. We therefore have enough environmental and social reasons, both in urban context and in the rural one, to promote an improvement of living conditions for the less fortunate. Perhaps this might be partly achieved through a process of environmental education.

[Note from the Editor: Ms. Gil Nova hopes that the 4th Cartagena conference to be held for the first time in a developing country, will inspire more secondary school teachers and students to address issues of Environmental and Development in their Education (see also page 21-46)]
Environmental education in Márkirok street, Budapest.

By Andrea Seregyi

Abstract: The project carried out of the Hungarian delegation of the 4th International Conference held in the UK, describes one of the most crowded areas in Budapest, Márkirok street, a quite narrow road between a hill and a slope. Depicting the overall Hungarian situation, the article describes air pollution which goes above the critical level partly due to the uncontrolled motorization. The school project monitors air pollution and evaluates the results. Márkirok street was selected as the place to monitor air pollution by the delegation of the conference. The project's main target is to create awareness of the problem. The educational institution and the local authority considered this project as a part of the local environmental education.

Among the 36 European countries the average life span is the shortest in Hungary. One of the main causes is the environmental pollution caused by traffic.

Budapest lies in the Carpathian basin. Protected by mountains, it is an enclosed space only open from the north-western side. In accordance with this the main wind direction is also north-west because of the deep and closed position of the basin, environmental pollution from the neighboring countries reaches Hungary only to a small extent. But our own pollution is trapped, so the present state of the air in the country largely depends on the prevailing weather conditions.

Hence, the state of the environment, mainly our air, depends first of all on us, Hungarians. For example, two years ago, as a result of the unfavorable meteorological conditions, smoke, soot and industrial fumes accumulated to such an extent, that for the first time in our history a smog alarm was issued. According to some surveys, the situation in Hungary might become dangerous in a few years.

Considering the air pollution of Budapest we have to take into account the fact that the surrounding mountains—mainly from the north and west—make the city even more enclosed and ventilated. Furthermore, poor city planning concepts also play a role.

Budapest, as the capital of the country, is overlaid with traffic, industry, and trade. Most educational institutions are located there as well. One-fifth of the country's population lives in the capital. This is a fact unparalleled in the world. The main roads of the country meet in Budapest. These European routes also cross it; for example, the main truck traffic from Turkey and Western Europe goes through Budapest. There are no routes that keep traffic away from the city, so the only road of the highways, which are arranged radially, is forced to cross through the city. The M0 ring road around the city, which as a part of the highways could reduce the transit traffic of the city, is being built too slowly. The situation becomes even more serious since the eight overpassed Fönhüosta bridges of the town cannot handle the traffic passing over them. Since 1985 the average speed in the town decreased by 3 km/h.

It is well known that Hungary faces economic decline and that there are no financial means to provide for environmental development. Hungary is the only European country where environmentally friendly consumer goods, like lead-free gasoline and special washing powders (not containing poly-phosphates) are more expensive than the polluting materials.

Most of the country's cars are old fashioned, 45% of them, even when they are new, do not meet the requirements of the environmental regulations, which are less strict than those of Western Europe. 44% of the buses of Volan, which is one of the transport companies of the country, should not be used anymore.

The underdeveloped infrastructure causes the exchange of information to take place in an almost medieval fashion which includes manual data transport. This makes our traffic even more crowded.

Besides the detrimental effects on health caused by exhausts from brakes and by the asphalt dust from roads, motor vehicles primarily pollute the environment.
through the emission of exhaust fumes. This is the way pollutants enter the atmosphere.

Motor vehicles, as sources of pollution, differ from any other source of pollution in that they move around on the surface and thus issue their pollution into the atmosphere under very unfavourable circumstances, i.e. at ground level and in narrow streets. Exhaust fumes are produced when fuel is burnt, and contain several pollutants, among which carbon monoxide, hydrocarbons, lead and nitrogen oxides. Harmful substances distributed in the air affect the human and other organisms directly and indirectly. They first have a detrimental effect on plants, animals, material goods and our climate. Eventually they damage our health.

The school project.

The project estimates the different biological effects of exhaust fume components detrimental to health. It illustrates the program of action of the workgroup "Air" that deals with the air pollution and the specific Hungarian circumstances. It also describes the measurements of a small group of pupils who tried to evaluate the quantity of dust at various points in one of the most polluted areas in Budapest. Finally, it describes the environmental project that resulted in 1986 in the phasing of a saga in one of the most polluted places in Mariákhely Street, to call upon attention and stop your engine while waiting for the green light, and in doing so reducing the quantity of pollutants. The exhibition also includes a couple of interviews illustrating how the average citizen reacts to the project in present-day Hungary with a complete lack of awareness of environmental dangers.

More information on the action program of the workgroup "Air", as well as on the project itself is available from Andrea Seredy, B-1124 Budapest, Füvö u. 8/a, Hungary.

GLOBESCOPE

News from Brazil

The "Caretakers of the Environment Brazil" is the newest partner of Caretakers of the Environment International. Since the launching of the idea through an article published in Brazil's daily scientific magazine, "Genesis Roy" (Science Today) last July by Dr. Walter Leal Filho, approximately 200 letters of teachers willing to join in were received.

According to Walter, one of the priorities of the network in Brazil will be the formal implementation of the "International Tropical Rainforest Program in Primary and Secondary Schools" and the preparation of teaching materials focusing on the problem of the depletion of the Brazilian Amazon. He also hopes to start the development of teaching materials in English to be used in schools in Europe, Africa, and Asia. In conducting a rainforest awareness project, Walter has visited a number of countries including England, Germany, Denmark, Holland and France. Schools interested in taking part in the International Rainforest Awareness Program should contact him at the following address:

Dr. Walter Leal Filho, Instituto für Erziehungswissenschaft, Zimmer 27, Universität Hamburg, Sedanstrasse 19, Hamburg 13, D-2000, West Germany.

ENVIRONMENTAL EDUCATION IN AN URBAN SETTING

A 4-DAY CONFERENCE FROM JUNE 10TH TO 13TH, 1991 IN THE HAGUE

The aims of the conference are:
1. to demonstrate the importance of environmental education in an urban setting,
2. to study the aspects of city-planning and landscape architecture dealing with green areas and accommodations for environmental education in an urban setting.

Participants

The conference may be attended by such different and complementary professionals as:
- policymakers, teachers, education officers, town planners, landscape architects. The maximum number of participants will be 50. Participants from all European countries, as well as non-European Mediterranean countries are welcome.

Cost

The conference fee will be 850,-,- to be paid upon arrival. Lodging and travel to The Hague are to be arranged and paid for by the participants.

The conference is organized by the department of city-management of The Hague, section Environmental Education.

For information:
Department of City Management
Mr. T.Klumpe
Huizenpark 39
NL-2515 WA The Hague
The Netherlands
FIFTH INTERNATIONAL CARETAKERS OF THE ENVIRONMENT CONFERENCE:
ENVIRONMENT AND DEVELOPMENT
AUGUST 27TH – SEPTEMBER 1ST 1991 CUSCO PERU

Environmental education has become an important goal in most countries, but the way it is practiced and organized differs widely, mainly because of differences in points of view on aims, content, methodologies, etc. That environmental education must have its place in school education – therefore in formal education curricula – is no longer a matter of discussion. Taking into account the above, the organizers of the Fifth International Conference formulated an overall aim: the improvement of the relation between Man and environment, to enhance and achieve a sustainable development. Hence, the main theme of the Conference will focus the relationship between ENVIRONMENT AND DEVELOPMENT. a willingness to change today's behavior for tomorrow's world.

AIMS OF THE CONFERENCE

- To acquaint participants with developments, approaches and strategies in environmental education in different countries.
- To increase the individual's ability to look deeper into environmental problems.
- To stimulate developments, innovation and dissemination and to discuss strategies.
- To enhance cooperation, discussion and professional as well as scholarly exchange.

PARTICIPANTS

- Professionals who are involved in environmental education such as: teacher-trainers, curriculum developers, staff members of Research Centres.
- Teachers in Primary, Secondary and Tertiary Education.
- Policy makers and professionals who are involved in Environmental Science and Education.
- Delegates from schools all over the world.

Participants will be selected from those who submit an environmental project and for their active participation in environmental education.

PROGRAM: The Conference Includes:

- Plenary sessions and panel discussions.
- Workshops and discussion groups.
- Poster presentations and network meetings.
- Fieldwork excursions.

SEAT OF THE CONFERENCE:

The Conference will be held in Urubamba, located in the Sacred Valley of the Incas and in Cusco, the Cultural Patrimony of the World. August is a sunny time with an average temperature of 19°C. Bring clothes suited for this weather and for fieldwork.

The conference is in commemoration of the three Centenary anniversaries of the National University of Cusco. Please bring your national costumes with you, whereas the program includes a parade with Peruvian and Inca's flag hosting.

COST AND INFORMATION:

The conference fee will be U.S $ 250.00. (depending on sponsorship this fee may be reduced). This includes all food, accommodation and travel within the 6 day conference.

All communications should be made to:
M.Sc. Eduardo Gil Mora
National University of Cusco
Pacay de la Casa L-9
Cusco - Peru
Tel.: 051–223–2282
Fax: 051–223–2282

Peru Conference (see backpage)
Registration form/ Ficha de pre inscripción
Name/surname/Nombre/s
Institution/Institución
Position/Cargo
Address/dirección
Telex/Fax

Detailed information will be sent after the registration.
Mayo información se remitirá después de la preinscripción.
QUINTA CONFERENCIA INTERNACIONAL SOBRE EDUCACIÓN AMBIENTAL:
DESEARROLLO Y MEDIO AMBIENTE
AGOSTO 27 - SETIEMBRE 01 - 1991 CUSCO PERU

En la mayoría de los países la Educación Ambiental constituye una meta importante y debe tener un lugar preponderante en la curricula de la educación formal. Los organizadores de la V Conferencia Internacional formularon el objetivo de mejorar la comprensión de la Educación Ambiental en el entendido de que ésta sea una acción que conduzca al cambio para un desarrollo en armonía con la naturaleza.

OBJETIVOS DE LA CONFERENCIA:
- Informar a los participantes respecto de las estrategias de la Educación Ambiental en diferentes países.
- Desarrollar el rol de la Educación Ambiental en los procesos del desarrollo.
- Analizar los problemas ambientales y sus efectos en el desarrollo.
- Promover la cooperación y el intercambio de experiencias.

PARTICIPANTES:
- Profesionales que van a desarrollar los trabajos en E.A. tales como investigadores, administradores de la Educación, etc.
- Profesores de Educación Primaria, secundaria y superiores y equipos de estudiantes involucrados en proyectos de Educación Ambiental.
- Políticos y Profesionales que desarrollan Ciencias Ambientales y Educación.
- Los participantes serán seleccionados en consideración a sus trabajos y en base a su activa participación en Educación Ambiental.

PROGRAMA:
- Discursos de Orden sobre problemas ambientales.
- Plenaria sobre estrategias de DESARROLLO Y MEDIO AMBIENTE.
- Exposición de Paneles.
- Taller de Trabajo sobre tópicos especiales.
- Trabajos de campo y excursiones.

Sede de la Conferencia:
La conferencia se desarrollará en Urubamba, ubicada en el Valle Sagrado de los Inca y en Cusco Ciudad Patrimonio Cultural de la Humanidad.
La Conferencia es en conmemoración al tricentenario de la Universidad, se programará un desfile de trajes típicos e imagen de las banderas del Perú y del Tahuantinsuyo. Se recomienda trear el traje típico de país de procedencia.

COSTO E INFORMACION:
Los derechos de inscripción son U.S.$ 250.00 los que incluyen alojamiento, comida y viajes durante los 6 días de la Conferencia.

Todo comunicado debe dirigirse:
M.Sc. Eduardo Gil Maza
National University of Cusco
Zagala del Circulo 1-9
Cusco - Peru
Tel.: 52299 PE URSAC
Telefones: 951-384-5220140
Fax: 051-84-232102

Mayor información se remitirá después de la preinscripción.

Fecha de pre inscripción
página 15