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# **THE GLOBAL FORUM**

## **for Environmental Education**

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**Global Network of  
Teachers and Students**

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Volume 7, number 2, June 1997

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#### Notes for contributors

First of all, we welcome contributions, whether it is an article, a poem or a report or anything else suitable for Global Forum.

#### Text

Text should be without format (DOS file or ASCII file). An article can have a maximum length of 2000 words. Footnotes should be avoided. Please accompany each article by a short summary and an address for further information. If you are unable to use a computer, we still welcome your contributions!

#### Tables, figures and illustrations

Do not include tables, figures and illustrations as part of the text. Gather them together in a separate file or on paper. In the text you can point out the approximate position of tables, figures and illustrations. We would also like to receive captions to the illustrations you send us. We always welcome pictures and photographs!

#### Deadlines

Global Forum appears twice a year in June and in December. Contributions for the June issue have to be received before May the 1st. Contributions for the December issue before October the 1st.

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### Editorial

Environmental education offers teachers and students many possibilities to contribute to a school's efforts to raise the quality of both school management and subject teaching, which has become an increasing request on the part of today's society. As a matter of fact the concept of *sustainable development* could serve as a comprehensive leading concept which serves as a basis for activities in the context of environmental care taking as well as in interdisciplinary teaching.

Moreover, teachers and students who involve themselves in environmental care taking with regard to the school and its premises might very likely find quite "natural" entrances to open contact with the local society, e.g. when looking for external factors which influence their efforts to enhance the quality of the school in its function as both a social and natural environment to its 'inhabitants'. Many schools are already engaged in developing quality indicators and guidelines towards sustainable development, however without being aware of one another's progress all the time, unfortunately.

Also with regard to expertise in teaching in a cross curricular and interdisciplinary way a lot has already become achieved by colleagues all over the world, again not always aware of what is going on in their own 'backyard' which borders the one of the national or international colleague who is also doing an excellent job from the point of view of developing concrete elaborations of the concept of sustainable development.

Now, the participants of the next conference of the Caretakers of the Environment International who will gather in Midreshet Sde-Boker Har Ha-Negev in Israel are in an extremely appropriate position to start of a process of exchange of newly developed insights and classroom experiences with regard to teaching and practising sustainable development in reality. A process which could start off in both the formal teachers sessions and during the informal exchange between teachers and students and consequently in the years to come as to bring about the compilation of a comprehensive package of curricular materials which includes brilliant pedagogical views, field tested teaching materials, etc. which mirror the heritage produced by CEI-teachers working throughout the world.

Frits Gravenberch & Arjen Wals

Educación ambiente ofrece muchas posibilidades a profesores y estudiantes de contribuir en los esfuerzos de una escuela para aumentar la calidad de tanto la dirección de la escuela como la enseñanza tematical, que se ha hecho una solicitud creciente por parte de la sociedad de hoy. Por lo demás, el concepto de desarrollo sustentable puede servir como un concepto comprensivo directivo que sirve como una base no sólo para las actividades en el contexto del cuidado medioambiental y interdisciplinaria.

Además, profesores y estudiantes que toman parte en el cuidado medioambiental con respecto a la escuela y sus alrededores se pueden encontrar muy probablemente un acceso "natural" para establecer contacto abiertos con la sociedad local. Por ejemplo, cuando están buscando factores externos que influyen sus esfuerzos para aumentar la calidad de la escuela en su función como ambiente social y natural para sus 'habitantes'. Muchas escuelas ya se dedican al desarrollo y pruebas prácticas de las indicadores de la calidad y de la dirección hacia el desarrollo sustentable. Sin embargo desafortunadamente no están constantemente informados del progreso de las otras escuelas. También con respecto a la enseñanza de una manera interdisciplinaria, ya mucho se ha conseguido por colegas por todo el mundo, los cuales que otra vez no siempre están informados de lo que está pasando en su "backyard" que linda con lo del colega nacional o internacional que también hace un trabajo excelente, visto el desarrollo de las elaboraciones concretas del concepto de desarrollo sustentable.

Ahora, los participantes de la conferencia próxima de los Caretakers of the Environment International reunidos en Midreshet Sde-Boker Har Ha-Negev en Israel están en una posición muy apropiada para comenzar un proceso de intercambio de las ideas recientemente desarrolladas de las experiencias clásicas con respecto a la enseñanza y la aplicación de desarrollo sustentable en la realidad.

Un proceso que pueda ser el comienzo de tanto las sesiones formales de los profesores como las conservaciones informales de ellos y como consecuencia en los años que vienen, puede producir la compilación de un paquete comprensivo de los materiales para la enseñanza, que incluye opiniones educativas brillantes, materiales escolares probados en la práctica etc. que reflejan la herencia de los CEI-profesores que trabajan en el mundo entero.

Frits Gravenberch & Arjen Wals

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## INTERNATIONAL LINKAGES BREATHE LIFE INTO ENVIRONMENTAL EDUCATION PROGRAMS

by Karen Hlynsky  
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USA

*In the Earth Education Partnership Program teachers and students from the USA and Costa Rica cooperate in the context of particular environmental education projects. Attention is given to aspects such as understanding of both scientific principles and human development issues. Results of students' research work is communicated on an international basis using both traditional and new technologies of communication. This article summarises the contribution Mrs. Karen Hlynsky made (together with Mr. José Miguel Molina from Costa Rica) at an international conference entitled: "Environmental Education, a rich thematic source for European Education Projects", held in November 1996 in Enschede, the Netherlands.*

### Introduction

In the real world environmental problems are a blend of social, economic, and ecological issues. Young people challenged with the environmental problems of the 21st century require an understanding of both scientific principles and human development issues. Research and communication skills are also necessary for the resolution of environmental problems that often transcend political boundaries.

### Earth Education Partnership Program

In an international learning program hosted by the Education Development Center, Inc., (EDC) in Newton, Massachusetts USA, secondary school students in different countries are learning to analyze various aspects of environmental issues, develop critical thinking skills, and engage in action plans for resolving environmental problems. Since 1993, the Earth Education Partnership Program has worked primarily with students and teachers in New Jersey and Costa Rica. They have been researching shared environmental concerns such as habitat loss, air

pollution due to transportation systems, and the protection of biodiversity. Through issue papers developed by the Education Development Center, Inc. (EDC), guided research projects, program-supported school-to-school linkages, and Internet units of study, students and teachers in both countries are learning how they are connected socially, economically, and ecologically and how they can work together to make an impact on environmental problems they share.

### Bird migration

A popular theme of study for participating schools is bird migration. A number of neotropical birds winter



in Costa Rica, but breed in New Jersey where they find more food to feed their young. Each year neotropical birds leave the tropics in search of breeding territory some flying non-stop over the Caribbean, others taking an overland route around the Gulf of Mexico where they are assisted by thermal updrafts present

over land masses during the warmth of the day.

Studying neo-tropical birds while they are migrating helps students appreciate the dangers migrants face on their journeys. For example, by studying storms and other weather patterns along migration routes, students come to understand one of the reasons that as many as 60% of songbirds and 75% of birds of prey fail to live out their first year. By learning about habitat changes in their own regions, in the regions of their partner schools, and along the routes of migration, they learn how human activities are influencing a current decline in 70% of the world's bird species.

Through research projects, students become familiar with the behaviour of several species of migrants that have habitat in their own areas, identify bird habitat in their own communities, and become familiar with

alterations in bird habitat as we humans expand our settlements and activities. They also observe the availability of food over time, identify structures in their communities that might impede a migrant's flight, and find out about local bird monitoring activities.

#### Using the Internet

Earth Education Partnership Program makes use of the Internet so that students in distant places can exchange information with other participants. BirdsNet, the Internet unit about Bird Migration, is monitored by EDC staff over a period of 6 weeks in March and April. Schools participating in the program's Internet units of study are registered on an electronic mailing list. Through their e-mail addresses they receive surveys asking for research data, which they complete and redistribute via the Internet to other participants. (Interested readers can access the BirdsNet archive at <http://www.edc.org/INT/EEPP/birdsnet.html>)

For several weeks scientists also join the mailing list to "converse" with students. In 1997 Dr. Paul Kerlinger, recent author of *How Birds Migrate*, answered questions about the behaviour of migrating birds. Dr. Russ Greenberg, Director of the Smithsonian Migratory Bird Center, added information about the impact on migrants of changing tropical agriculture practices. (As more and more coffee growers switch to sun-loving varieties of coffee, migrating birds are losing precious habitat: the shade-giving trees in traditional coffee fields.)

#### Taking action

Once students complete initial research, they develop plans of action for protecting migrating birds and their habitat. Their action plans have taken many forms including community education projects, monitoring efforts, appearance at land hearings, and habitat restoration. In New Jersey several participating schools have planted gardens on their school property to provide food for the tiniest of migrants-humming-birds which are no bigger than a person's thumb, yet must feed all day to survive. Conservatorio Castella, a Costa Rica art and drama school has given public

performances in celebration of their love for and commitment to the protection of birds and other species.

As part of the Earth Education Partnership Program, several Costa Rican schools are engaged in habitat restoration projects such as reforestation efforts, or the development of nature reserves. Linkages with other schools promotes a spirit of fellowship and often promotes better-informed action. CTA de Pacayas in Costa Rica has named a trail in its nature reserve after its partner school in the north, Burlington County Institute of Technology.

Burlington County has reciprocated. When asked what "Pacayas" means, participants at Burlington County explain their ecological connections to a school in a distant place. Colegio de Bagaces located in Guanacaste, Costa Rica has planted hundreds of trees to reforest a portion of their community. Their partner school in North Arlington, New Jersey, is supporting Bagaces's efforts by restoring a portion of bird habitat at their end of the neotropical migration route -a portion of a former landfill that once served the New York City metropolitan area. With ongoing care the perennials students have planted there will eventually become an upland forest.

#### Enclosing

The Earth Education Partnership Program is an expanding program. It continues to develop study units that provide meaningful experiences to participants in various sites. EEPP is currently working through regional coordinating agencies including La Asociacion de Voluntarios en Investigacion y Desarrollo Ambiental (VIDA), San Jose, Costa Rica; Educational Information Resource Center, Sewell, New Jersey; and Dutch National Curriculum Center (SLO), Enschede, the Netherlands.

For more information about program activities, contact Karen Hlynsky, Education Development Center, Inc. (EDC), 55 Chapel Ave., Newton, Massachusetts, 02158. USA. Fax: 617-332-6405. E-mail: [khlynsky@edc.org](mailto:khlynsky@edc.org)





## ENVIRONMENT DEVELOPMENT EDUCATION PROGRAM

by class IX students of Salwan Public School (Afternoon)  
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*Ecological Revolution (ECO-REV) in India aims at generating environment awareness amongst Secondary School students. In the following the so called Environment Secretariat of ECO-REV at Salwan Public School reports results of projects on themes such as Biosphere, Waste Management, Energy Management, Environment and Impact Assessment.*

### Environment Development Education Program Phase - I (EDEP-PH-I)

ECO-REV (Ecological Revolution) was registered under the Societies India Act 1860 on list September 1993. The Society identified Flora, Fauna, Manufactured Goods recycling Pooling, Population Control as the four major heads under which it would take up activities to conserve the Environment. EDEP-PH-I was envisaged to conduct activities under the above four major heads to generate Environment awareness amongst the Secondary and Senior secondary class students. EDEP-PH-I aimed at creating the necessary willingness amongst the Schools of Delhi to pay to establish Environment Education as a subject in its own right.

The program was launched in October '94 in Springdales Schools (Dhaura Kuan) without any financial implication. In January '95 the program was adopted by Salwan Public School (Afternoon) and ASN School on payment of Rs25/- & Rs30/- respectively as reimbursement of expenses incurred on conveyance. Due to unavoidable reasons the program had to be abandoned in Springdales School and ASN School in September and August '95 respectively. The program was successfully implemented in Salwan Public School (Afternoon) as a consequence of which an Environment Secretariat was established in the school on 22-8-'95. The environment Secretariat was established to conduct full time activities for conservation of our Environment.

\* For details of ECO-REV refer Biannual report '93-'95.

\* For details of EDEP-PH-I refer EDEP-PH-I booklet.

\* For details of ES refer ES report of SPS (Afternoon) for '95-'96.

### Environment Secretariat

It was felt that two periods of a week was not enough to do anything concrete towards Conservation of our Environment. The periods were enough to impart theoretical knowledge through lectures but activities would require more application from both the sides. Further, unless and until activities were conducted there would be hardly any difference between Conventional and Environment Education. Authorities in Salwan Public

School (Afternoon) were keen on an effective Environment Conservation. They were also willing to bear the cost of the same. As a consequence the Environment Secretariat (ES) was founded in the school on 22-8-'95 by the '95-'96 academic sessions IXth class. The ES was to be operated daily by four students, two from each section of class IXth. The Secretariat did some ingenious work on Energy Management and Solid Waste Management. The Plant nursery and the Hand-made Paper Facility were also established by the '95-'96 academic sessions IXth class. They commenced the work on human/forest interface in Delhi Wildlife Sanctuary (Asola).

The '96-'97 academic sessions IXth class inherited a solid foundation from the previous batch and they are already building upon it. In the pages to follow we describe the activities conducted by the Environment Secretariat at present and also lay down the course of activities for the '96-'97 academic session.

### Biosphere -I (Flora)

Afforestation is what is basically understood as Environment Conservation by masses, but the relation between Environment Conservation and Afforestation is little understood. The Environment Secretariat has maintained a plant nursery in the school. The criteria for the number of saplings we grow is defined by the Energy Bank (In School). The Environment Secretariat rates the impact of every human being and all anthropogenic development by its respective Energy Consumption. Further it considers the Plant Kingdom as the only Net Producer of Energy in the Biosphere. Therefore the Energy consumption of individual students and the schools Built Environment Energy Audit report decides the number of saplings we grow & the fields we sow.

The way we conduct the exercise is also unique in more than one way. We make a field sketch (to scale) to conduct a tree census and identify niches for planting our saplings. Though we do not plant a great number of saplings, but we intend to achieve a survival rate of more than 85%. The whole exercise is very interesting as it involves intensive physical activity. As a consequence of this meticulous procedure, we have each and every tree, shrub, sapling in the area selected by us on our desktop. The exercise ensures continuous association with the area take-up, instead of just seasonal presence. Biosphere I helps the student understand various implications of the Plant Kingdom to the Biosphere. The Navigation exercises make the activity very interesting for students.

#### Biosphere-II (Fauna)

Being residents of an Urban Compact settlement there is little we can actually do towards the conservation of the Animal Kingdom. The Delhi Wildlife Sanctuary (Asola) has since the inception of the Secretariat been the center of all activities under this head. The involvement began with visits to the sanctuary last year. It was felt that the sanctuary was not able to come in its own because of various problems on the Human/Forest interface.

The foremost was grazing within the Sanctuary boundary conducted by the localities of Anangpur, Sangam Vihar and Sanjay Colony. The boundary was broken at several places to suit the requirements of the encroachers may it be grazing, lopping, defecating or just commuting. The Forest Department has its limitations, as the guards have no personal security. The necessities of the people in surrounding localities combined with their ignorance makes a lethal enough combination to doom the Sanctuary, until an effective system of checks and balances is evolved to negate the above mentioned ill effects on the Human/ Forest interface.

It has been found that the problems can be sorted out if adequate relationship is established between the concerned parties by providing financial incentives. The identification of concerned parties on Human side is one.

#### Waste management (In School) and (Out School)

As Modern citizen's we generate ultimately nothing but waste if seen from the point of view of the Biosphere. We at the Environment Secretariat consider everything that we do except for eating as generating waste beyond the recycling capacity of the Biosphere. The Environment Secretariat considers that waste generation is directly proportional to Energy Consumption. We deal with Waste under three familiar categories of Solid, Liquid and Gas associated with their respective elements i.e. Earth, Water and Air.

Last year we initiated some original work In School (IS) and in localities Out of the School (OS) on Solid Waste Management, like introduction of Micro level sorting at the primary producers level. This year we want to evolve Micro level sorting in the school a step further to suit the requirements of newly evolved Composting, Paper recycling facilities.

We began monitoring Air pollution (Sulfur-dioxide, Nitrogen-dioxide and Suspended Particulate Matter) with the Center for Science Communication and Education (University of Delhi) at 5 sites identified in the vicinity of our school i.e. Patel Nagar, Patel Nagar round about, Pusa Road, Pusa Road round about, Ridge Road round about. We intend to take this exercise a step further by manufacturing a Air Purifier

for conventional pollutants like, Sulfur-dioxide, Nitrogen-dioxide, Carbon Monoxide and Suspended Particulate Matter. We have proposed to participate in the Transport Department's (Delhi) Vehicular Pollution Control Campaign. We envisage monitoring Water Pollution and manufacturing a sewage filter this academic session. Monitoring pollution, of all three Elements is undertaken while conducting an Environmental Impact Assessment study.

#### Energy management (In school) and (Out school)

The Secretariat considers the Energy Consumption factor of the Human civilization as the primary cause for Environmental degradation. We at the Secretariat work upon both individual and group Energy Consumption patterns. Our efforts towards Environmental Conservation assumes dealing with Individual Student's Energy Consumption as Primary followed by Energy Consumption patterns of Immediate and Greater Environment at Secondary and Tertiary stage. Energy consumption is considered to be directly proportional to the Environmental Impact caused. The students operate the Energy Bank (In School & Out School) to integrate the moral responsibility and economic liability.



The Energy Bank (In School) operates an account for every student of the IXth class. The students file their Energy Consumption

returns every month on prescribed formats. There are three Managers one in each section to run the Bank. The mean consumption level is ascertained every month by the Bank followed by cash transfers in accounts of students who have energy consumption below the ascertained mean. The excess money for which transfers cannot be arranged is utilized by the Energy Bank in producing Energy through increasing Biomass by afforestation, both in and out of the Capital.

The energy Bank (Out School) targets group Energy consumption's in the immediate and the greater Environment of the student. The students conduct Built Environment Energy Audit (BEEA), Routine Energy Consumption Audit (RECA) and Biomass Displacement Audit (BDA) to ascertain the Energy Consumption of the client. The client is allocated a rehabilitation target for Biomass in proportion to the Energy consumed. The cash transfers are on similar lines to that of Energy Bank (In School) only the volume is larger. The Energy Bank helps the client achieve the Biomass rehabilitation target both in and out of the city on payment. The Energy Bank (Out School) has conducted a BEEA and RECA for WWF India (Secretariat) last year. Half a dozen proposals



floated by this years batch are under consideration. The Energy Bank (Out School) has several teams for conducting the Audits consisting of four students each. The teams are managed by the Program Officer Environmental Impact Assessment while the Program Officer manages the correspondence through the Program Officer Networking. The posts are held in rotation by the deserving students.

Energy Management provides immense exposure to the students who are mature enough to enrich their understanding about our Environment. It also gives them a hands on experience of the stark realities of our civilization which have to be addressed in the course of their Environment Conservation efforts.

This experience clearly defines that the total cost of Development should be borne by our Economy, instead of passing it in disguise to Nature. It also provides the necessary recognition to the fledgling Conservationists from their Immediate and Greater Environment.

#### Environmental impact assessment

This Energy Bank (In School & Out School) is an extension of this activity which was created to facilitate administrative and economic functioning. The economic functioning is similar to Energy Bank (Out School) and both are operated by the Program Officer Environmental Impact Assessment. The Environmental Impact Assessment (EIA) is greater in magnitude than the BEEA, RECA & BDA. The Energy Bank (Out School) services the Commercial and Institutional sector while EIA services the Industrial sector also. In addition to the Built Environment which is no doubt the single largest factor contributing to Global Warming, the EIA includes assessing the impact of the client through his assets on the Society, Economy, Air, Climate, Water & Soil of the region. So to say it takes into consideration the diverse impact on the immediate and greater environment.

This facility has been created by the IXth class of '96-'97 academic session. We have requested the Tata Energy Research Institute (TERI) & Confederation of Indian Industries (CII) to allow participation in EIA's conducted by them for the Industrial sector. The replies are awaited.

The TERI & CII provide services to bigger industries which can afford the economic implications of the EIA conducted by them. We intend to cater to the micro industries and some SSI's. The economic conversions of the impact caused upon diverse factors of the Environment will be evolved in the process of the first few EIA's conducted with TERI & CII and later on evolved to suit our clientele and our motive of Environment Conservation. This exercise is destined to redefine Development and Environment for young minds of the future citizens of "Global Village called Earth".

#### Handmade paper recycling facility

The ingenious facility was developed during the '95-'96 academic session. It enables the students recycle paper in the school premises with their own hands. It inculcates the concept of recycling amongst the participating students. The facility was demonstrated to the Central Institute of Education and Vasant Valley School (Vasant Kunj). The completely self sufficient economic paper recycling facility is bound to go places this year.

#### Theatre

This mode of communication has been initiated by the '96-'97 batch to convey the ideology of the Environment Secretariat to the target audience. It is largely to convey the concept of Environment Education to students in different schools to promote Environment Conservation. Short skits of 15-30 minutes are prepared on the theme of different activities conducted by the Secretariat.

#### Population control program

As the IXth class students are considered to be too young for managing or participating in this program, they are just made aware of the concept of the program. The teachers of the School participate in this program and the program is managed by the Director EDEP-PH-I from ECO-REV. This year the program will be diffused is the XIth class starts participating.

#### Education research & development

The students are made aware of the goals of the Conventional Education in order to make them realize how far they stand from their envisaged position. They are explained in great detail the process of information transfer (getting educated) and formation of the Self (personality). They are explained how education sustains culture by manufacturing personalities to play the set roles. How the failure of education system leads to evolution of culture. They are informed how the Urban Culture practice sensitizes our Imagination which we apply to our Environment to enhance our culture at the cost of Nature. They are informed how the faculty of Imagination evolved. Several tests are conducted to test the imagination of students both alphabetic & numeric. They are informed about the process adopted by the brain to manage incoming information form the senses to build the rich fund of experience which undoubtedly is the backbone of our Urban Culture.

On the other hand it conveys to their baffled minds the basic flaw in Conventional Education and the Urban Culture it seeks to promote. It puts all they have learned through Environment Education in context of Conventional Education. The exercise enables them decide in favour of positive personality development provided by Environmental Education.



## LOCAL AGENDA 21 Many Ripples are Better than One Big Splas

by Janice Palmer  
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*Environmental Action taking requires particular care on the part of teachers. Taking students out 'in the field' not only asks for special measures from the point of view of safety but also to initiate and keep in shape students' involvement to perform a good job. Doing a good job as a school judged from the perspective of the local social community is also a rather important condition one has to take in account as an environmental education teacher. This article summarises the contribution Mrs. Janice Palmer made at an international conference entitled: "Environmental Education, a rich thematic source for European Education Projects", held in November 1996 in Enschede, the Netherlands.*

The activities you choose to help make Local Agenda 21 a global success can vary widely. It is HOW you conduct them that determines whether the planet will really benefit. Ask yourself some serious questions and be sure to get some honest answers before you take the plunge into any activity.

### Goals

Your goal(s) might be one or more of the following:

- 1.to raise funds for another project
- 2.to obtain publicity for your school or student group
- 3.to help a specific segment of society
- 4.to educate students/the public about a specific environmental issue
- 5.to change the attitudes of students/the public
- 6.to change the behaviour of students/the public
- 7.to help the planet by repairing damaged areas
- 8.to prevent further damage to a particular area
- 9.to empower students by giving them a chance to voice their opinions and/or to make their actions count.

Goals 1,2 and 3 are suitable for Local Agenda 21 projects only if they are combined with any of the goals 4-9. Alone, they make a mockery of Local Agenda 21. The real focus of Local Agenda 21 is long term global recovery. One shot efforts are really not compatible with this focus. Your first event or project may occur on a single day but, to be meaningful, it must be something which can be continued on an on-going, day-to-day basis or at least be seasonally or annually repeated. Examples of the former are the collection of recyclable materials in schools or reducing waste related to school lunches. Examples of the latter are clean-ups of local school yards or ravines, the maintenance of a recently planted area or the creation of public displays on specific local

environmental issues. Be sure to understand fully your own goals so that you can verbalize them to anyone who questions the project.

### Connections

Make contacts with NGOs or other local authorities/agencies who have an interest in your project. They can often supply materials or information about the work you intend to do. Get all the advice you can, especially from experts in the field. If you need funds to carry out your work, try to obtain the sponsorship of local agencies or businesses.

### Planning

Allow plenty of time for planning and organizing the project. You and your students can learn a lot by conducting a detailed planning process. You will need to outline the whole project and create a time-plan for accomplishing all of the preliminary tasks plus a detailed plan for the event itself. Then work out the details. You cannot be too prepared! Plan not only for the event as designed but also plan for what you will do in case of various problems such as injuries, absences and bad weather. I always wear a whistle and during the initial instructions to my students, I tell them that if they hear three long blasts of the whistle, they should come immediately to where I am without hesitating. I would use the whistle only if some sort of emergency action were necessary. Because of good planning and a little luck, I have never had to use the whistle in the last 16 years, but at least I have a way to get the group reassembled quickly if necessary.

### Permission

Check with local authorities regarding ownership of any land involved then check with the owners for permission to carry out your proposed work. The owner may require that certain guidelines be followed. Every school has its own rules and procedures for informing parents about events which will involve their children, whether the event is during school hours, after school hours or on weekends. Even if you are required to collect only simple permission forms, use this marvellous opportunity to communicate with the parents and participants. Describe, both generally and specifically, what you will be doing and be sure to explain WHY such a project is important. The consent form can be a mini educational tool in itself.

### Supervision

Students often say they hate rules and want freedom; however, they respect rules if the purpose is clear.

Adequate numbers of trained, experienced supervisors are a necessity for every them or their work, emphasize that the work must be done in a way to guarantee the success of the project and in a way that all students will be safe from injury and other problems. Perhaps other staff members or parents are suitable supervisors for your group. You can also invite professionals as supervisors if you are doing work specific work such as tree planting or removing invasive species. Once you carry out one or more projects, former students who have participated in the past and who maintain an interest in environmental They relate well to current students and because they are returning on their own, they make the project seem even more significant to the current participants. Meet with super-visors in advance. Be sure they understand the projects rationale and all the procedures. Your students will only get confused if mixed messages are conveyed by different people.

Give supervisors details about what you actually expect them to do. Tell them to observe the participants carefully and when mistakes are noted, demonstrate exactly how the task should be done, not merely tell the students what to do. Then it's important that they stay in the area to make sure that the suggestions are being followed. At the beginning of the event, introduce all the supervisors and make sure the students know that they are responsible to these supervisors. It's sometimes useful to subdivide the large group into smaller groups, each with its own supervisor. Your task is to coordinate the entire group and check that the supervisors are doing their jobs.

#### Project size

If you are tempted to carry out a major event with a huge number of participants, think twice! Projects are much easier to plan and carry out if there is a limited number of participants you know personally. Even after you have been successful with a small-scale event, don't assume that you now could easily double or triple its size. It would be far better to have three separate repeated events than one big one. You may have to use three days of your time instead of one, but you will prevent the frustration which happens when a single large event encounters problems and is not carried out properly or efficiently.

Do not make frivolous promises that your students will have fun. Your definition of fun may not be theirs. Of course, most of the participants WILL have fun, but let them find that out for themselves. Do not try too hard to persuade students to take part, and certainly do not make these projects mandatory. Students who do not want to be there will be the ones who cause problems for others and perhaps even jeopardize the success of the whole project. Work only with the students who want to be there. Word will spread and you have more volunteers the next time you plan something. There may even come a time when you have to set a limit on the number of participants. Somehow waiting lists even make the event more appealing.

#### Warnings

Warn students that they are expected to follow detailed instructions and to work hard. Usually people



who volunteer really do want to do a good job and will follow instructions carefully. Reserve the right to send disruptive students home. Decide whether your event will take place in any sort of weather and be sure to warn participants of this fact. Give detailed instructions about what they should wear or not wear. Give them an

honest idea about what type of work is to be done and how much effort will be required. Estimate realistically how long the task will take. I find it useful to over-estimate the time a little. It allows for time to remedy problems or to deal with unexpected situations. If you do not finish at the time you predicted, participants get annoyed but if you finish early, everyone is pleased.

#### Commitment

Impress students that the success of the project depends on their participation and that their efforts are important. It works well to use a small commitment form which the students have to sign promising to be on time, work hard and to complete all tasks according to instructions.

#### Mistakes

It is often said that we can learn from our mistakes. If you're lucky, you can modify your project on site to correct for unexpected problems. At the very last, you can modify your project before you repeat it. The best scenario, however, is to plan the project so carefully that it simply is a success without mistakes.



#### Results

Offer plenty of encouragement and praise to your supervisors and students throughout the project. If the project is worth doing, it's worth extra effort required to make sure it's done well. Students will enjoy themselves working as a team with teachers plus perhaps other professionals and former students. They will also obtain a feeling of accomplishment from being physically tired, provided they recognize the importance of their work, both immediately and in the broader scheme of things. Students may also begin to appreciate the importance of planning details and teamwork. Students will take long-term pride in their work and will be anxious for the project to continue. Students have boundless energy and we are in a position to help them channel it to help the planet.

#### Make ripples not a big splash

We all understand the ripple effect. Your Local Agenda 21 projects should send ripples throughout the students and community for years to come. Continuing ripples measure the success of your work. Big splash events may get many volunteers and even lots of media coverage, but are other noting more than a one-time novelty. Such events may appear to have good results but beware! Three thousand trees planted by 800 students may sound like a good thing, but such a group simply cannot be properly supervised and without proper supervision there can be disastrous, wasteful results. Many of the trees will die, wasting not only the plants but also the energy to grow, transport and plant them. In addition, the students are discouraged when the trees die. It's much better to

plant 100 trees using 25 dedicated students following rigid procedures. Large, poorly planned and unsupervised events may even harm the natural environment you're trying to protect. Examples of such disasters are holding a huge walkathon to raise money to save whales but leaving excessive litter along the route and planting lots of pretty shrubs along a stream but using invasive foreign species which will outcompete the native groundcover.

#### Final words

Set your long-term goals and be sure your project will really benefit the natural world. Start with small projects. Plan and execute them well. Feel and share with your students the pride involved with a job well done. Good luck! Send comments or questions by e-mail: [jpalmer@pathcom.com](mailto:jpalmer@pathcom.com)

#### Summary

1. examine your goals honestly from an environmental perspective
2. make and use connections
3. allow time for detailed planning
4. obtain permission to carry out the project
5. obtain and train an adequate number of supervisors
6. keep your projects small
7. avoid hollow promises
8. give lots of warnings
9. work with committed participants
10. avoid mistakes and quickly correct any which occur
11. expect good results
12. focus on long-term effects

### THE HISTORY OF GRUDE

Grupo de Defesa Ecológica

Est. de Jacarepaguá 7818/201 Jacarepaguá- Rio de Janeiro- RJ

CEP - 22753-040 BRAZIL

e-mail: [grude@ax.ibase.org.br](mailto:grude@ax.ibase.org.br) [http://www.ibase.org.br/\\_grude](http://www.ibase.org.br/_grude)

Since we consider Environmental Education as a full right of citizen, it is one of the principal areas of work of our Ecology Defence Group (GRUDE). Our beginning actions were ecological activities in historical places and in the green areas of Jacarepaguá (Rio de Janeiro - Brazil) which were seriously threatened by real estate speculators and by a frenzied urban growth. One of the first activities (social-ecology) we developed, together with the students of Municipal schools of the area. Another important struggle happened through the preservation of a densely wooded area with typical vegetation of the Atlantic Rainforest. After nine years our mobilization culminated with a great victory for the ecological movement and for the residents; the creation of the Freguesia's Park and the transformation of its surrounding Environmental Protection Area (APA).

In this line of work the GRUDE has been offering the community courses in Social Ecology since 1991. One of the products of this work was the edition of a pamphlet

on Environmental and Community Education, with the support of the Catholic Association of Brazil (AEC).

Since 1995 the GRUDE has been receiving support from LIFE (Local Initiative Facility for Urban Environment) / UNDP (United Nations Development Programme) to develop the project. 'Environment as a whole'. The project consists of non-formal courses in Environmental Education for training of many agents to facilitate the development ecological projects in their communities.

As a culminating point of the ten years of ecological mobilization and social-environmental struggles, the GRUDE began the Program of Community Environmental Education on Surrounding Areas of the high-way called Yellow Line.

The GRUDE is present in different forms (ways), one of which is the Network of Environmental Education, NGO's Brazilian Forum and also APEDEMA (Permanent Assembly of Units of Defense Environment).

For more detailed information contact us at the address above.

## TU WAS

### A new approach to education in environmental problems *a holistic, action-oriented and synergetic approach*

Bahnhofstrasse 10, 85567 Grafing, Germany  
Telephone: +49/8092/8195-15  
Fax: +49/8092/8195-55  
mailbox: CUBENet, +49/89/1498811  
tuwas@cube.net

*TU WAS -Do Something in German- concerns a particular German pedagogical approach which became developed to promote learning by doing as well as self-organised education in the area of Environmental Education. Both the methodological aspects of the approach and projects which are currently in execution are discussed in this article.*

#### Introduction

Solving our environmental problems requires the cooperation and help of the general public. Therefore, conservation and preventive measures have to be covered by the education system. From this point of view, we distinguish three problems:

#### *Lack of ecological knowledge*

Most people don't actually know enough about the interrelation of ecological issues, in spite of a high degree of general "ecological awareness" which has repeatedly been confirmed by opinion polls. Knowledge on ecological issues is, however, a prerequisite to environmentally sensitive behaviours. So far our educational institutions have not been capable of teaching this knowledge to a sufficient extent.

#### *Lack of data on the state of the environment*

Usually we do not have the means to establish the ecological quality of our immediate environment. In other words, we don't know anything about the state of the environment we actually live in. We do not have any access to the relevant data and we can't ascertain data ourselves and re-check official data. Which is unfortunate because knowledge about our immediate environment is most likely to be a motivating factor for action.

#### *Lack of options for action*

Even if we knew enough about the interrelation of ecological issues and the environmental problems on our doorsteps, what could we do? Since even if individuals behave in an environmentally sensitive way they can't be solved on the individual and private level alone, they can hardly be articulated or described sufficiently.

The tasks for an environmental education scheme With this in mind, the tasks of an environmental education scheme can be described as follows:

- Encouraging cognitive and pragmatic "key qualification" rather than just presenting

knowledge. This is the only way of making individuals independent of tendentious information and information presented without the proper context.

- Encouraging learning by doing. This gives students the opportunity of acting in contexts which are of importance to them and which belong to the real world as opposed to contexts set up by the respective teacher or tutor. This provides students with feedback from their actual environment.
- Encouraging self-organized and autonomous learning. This involves a redefinition of the "teacher's" role and provides the "student" with the opportunity to develop his or her own way of acquiring information, taking part in discussions and taking decisions.

TU WAS is an approach which promotes learning by doing and self-organized education. So it does exactly what is asked for. TU WAS teams have been formed at many German Volkshochschulen (adult education centres).

#### Methodical Elements applied by TU WAS

The TU WAS approach involves the following five components with their respective synergies:

- Support for those taking part in the TU WAS teams is provided by professionals working for the Volkshochschule. The Volkshochschule acts as a moderator for the team and provides the office resources required.
- The degree of autonomy enjoyed by the team, even towards the Volkshochschule. TU WAS teams are completely independent in determining their subjects, aims, strategies and actions. It must be ensured that there is no censorship whatsoever on the part of the Volkshochschule and the respective supporters when TU WAS activities become public and gain political importance.
- Teams are encouraged to do public relations work. It is considered very important to take part in and influence the discussion on relevant subjects in public.
- Influence on local politics. Environmental issues are always political issues. Therefore it is quite obvious that the work of TU WAS teams may also have political effects. In fact the local or regional level does provide opportunities for solving environmental problems and for preventive action.



- TU WAS teams make a contribution to political debate.
- The use of scientific methods. If you can't support your point of view with reliable data of your own you won't stand a chance of critical analysis and, what's more, you can't demand action from politicians, authorities and the general public. It has been proven that data reflecting the state of the immediate environment does provide motivation and usually leads to action. Cooperation with young scientists has proven to be very worthwhile.
  - socioecological sampling (polls, range of goods, etc.)
  - organizing local and regional measurement networks.
  - journalistic activities by non-journalists for campaigns in papers.
  - organizing public political discussions.
  - an annual award for disservices to the environment.

#### Projects

Some TU WAS activities so far:

- involving the general public in collecting chemical and physical data on the environment (water, soil and air samples, electormog, etc.)
  - using biological indicators (lichen studies, ozone campaign, etc.)
- Our tasks include advising TU WAS teams in the start-up period, setting up a network of existing TU WAS initiatives and organizing a pool of measurement devices for TU WAS teams. Furthermore, we provide information in a magazine called "TU WAS info" and via mailbox. We are very much interested in cooperating with similar groups and initiatives throughout Europe.

Please get in touch!

#### It's not ours to destroy

written by: Seamus Frisby, Tramore Backstrand Action Group

Eyes that watch from behind the wall  
Cast on down to race course and stall.  
Water lapping at the rock  
Creeps in through a broken crack.  
Morning breaks with a shock  
A new race course for an Icelandic flock.

Heron, shelduck and wader  
A new haven for an Icelandic invader.  
The mallard is up now, the dawn it did break  
Two teal roll out now on the break of a wave  
The curlew is the first one to break the silence of the morn.

With his come on, come on, the tide it will fall  
The tide it will fall  
In an hour it will pass  
And all that is left there is sand and mud flats.

Sampher, cockle, winkle and wader  
Replace the four ball, sea the invader.  
Nature has called us to embrace  
Time will pass with haste.  
Was it all a waste?

The smell and stench is common place  
When natures wonders we erase  
The lonely cry of Backstrand keepers  
Protect the lives of endless sleepers.  
If speech was theirs

I'd hear a cry.  
So project them now for you and I.

Whale that blow form beyond the bay  
Sewer pipe carry destruct and decay.  
Can and syringe, oil and blood  
And bottle that destroy the feet that trod.

I'll stop this now.  
One knock on the door.  
One vote for me and it will be no more.  
How many words from those that know  
Are scattered like garbage o our beach and shore.

Why? I ask, why indeed?  
Is it all for money and greed?  
Or is it that they just don't know  
The damage they can do to our Backstrand and shore?  
So take a look at this place  
With it's beauty and splendour.  
The dividing line is very slender.  
What is lost for tomorrow is not ours.  
So protect the fish, the birds and the flowers.

Ash and trash and dump and heap  
Don't think of it as being so cheap.  
What would it cost to build a strand  
That nature has given us with it's ferocious hand?

So take a look at it now so still and quiet  
Destroy it, well we just might!

from: south-east environmental directory Newtown  
school  
Waterford, Ireland

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NEWS FROM THE NATIONAL BRANCHES

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Caretakers of the Environment Portugal

Fatima Matos Almeida  
ASPEA - Lisboa, Apartado 4021  
Portugal - 1501 Lisboa Cede  
Tel. 35 1 301 19 02

**Targets**

*Main target:* Improve and Develop Environmental Education.

*Secondary target:* Develop the work within Care-takers of the Environment.

*Other targets:*

- Develop an Environmental Education project as a positive enjoyable experience
- Promote the exchange of students from different countries
- Develop the exchange of information and experiences among different schools in a country and among different countries
- Make sure that each project reaches its end.

*Periods of action*

- Before the Annual International CEI-conference
- During the Conference
- After the Conference

Each Conference must simultaneously be viewed as a consequence of last year's activity but also the source of next year's work. It must be simultaneously considered the end and the beginning of a process.

*First step: After the Conference*

Positive support to the Participants in the former Conference by

- the Conference itself for its unforgettable experience
- thanking all participants of each country for their good work and display
- spreading the news about the Conference and its conclusions by means of press releases as much as possible, so that each participant can be proud of its work while participating in the Conference.

*Second step: 'In the mean time'*

- 1) The next Conference is already being prepared
- spreading the news about the next year's Conference informing about its theme and conditions of participation through all the former participants and through other means of information such as the N.B. Newsletter or Bulletin, other G.O. or N.G.O.'s Bulletins and other Media. Try to reach as many schools as possible.

*Teacher Training*

- Give Pedagogic and Scientific support to each project
- Ask for information to each school already involved in order to build a chart of the project.

- Develop own project, for example, among members, so that it may, if necessary, work as a model.

2) The school year is going on

- trying to spread even more the knowledge about the next year's Conference through all means
- supporting projects:
  - Built a chart of the project
  - Give Pedagogic and Scientific support to each project
  - Keep the schools/projects in touch through Meetings, Teacher training sessions, the National Branch Newsletter or Bulletin  
(The Meetings may not be specially organised, but for example by means of a informal meeting, a Field Trip, a Conference, put side by side people that may develop similar projects.)
- Write articles/news/reports to be edited in the Global Forum.

3) The school year is nearly in its end supporting projects:

- Give Pedagogic and Scientific support to each project
- Give support to the conclusion of each project
- Keep the schools/projects in touch through Meetings or the N.B. (Newsletter or Bulletin) so that one can learn with the experience of others.

*Third step: The Conference*

*Preparing the Conference*

- Select the projects that can or should participate in the caretakers International Conference, for example by means of a contest, studying the projects, or knowing about the work the teacher has developed in former years/conferences
- Give logistic support to the presentation to be held by the school
- Give logistic support to the trip, giving information about the best flights/prices/routes, etc
- Inform about potential financial supporters
- Support the participation by playing the trip or the Conference Fee
- Prepare each Conference organizing Preliminary Meetings among the participants to create a group strategy for the presentations, and to prepare all the participants to the Caretakers Spirit, and to the Exchange during the Conference
- Improve the presentation by giving ideas about songs, the theatre, etc



- Prepare a text about the Delegation that can work as a linkage between the National Delegations and all the others
- Prepare some materials to be sold that could financially support the International Organisation.

#### *During the Conference*

- Support the exchange
- Present the N.B. project
- Distribute the text about the Delegation, promoting the contacts at home
- Involve more people in the Caretakers spirit even if they are not participating in the

Conference, for example organizing a students forum in the Country, simultaneously with the International Conference that may be discussing the same issues and giving their outputs to the International Conference and vice versa

- Articulate the participating groups to work as a country Delegation
- Sell the materials formerly produced to support the International Organization
- Improve the Caretakers Spirit by making each Conference a memorable event.

The Network is working.....

Aspea

### **Caretakers of the environment Canada**

1657 Barrington Street,  
Suite 125, Halifax,  
Nova Scotia, Canada. B3J 2A1

The following is a summary of actions undertaken by the Board at their regular meeting to-day.

#### **Student provincial environmental conference (spec) follow-up**

Kendra Wormald and Nicole Brown of Sackville High School gave an enthusiastic report on the 1996 SPEC hosted by their school. The focus of workshops and fieldtrips was "Cleaning Up Our Act". Once again, the students reported a rich learning experience, highlighted by contact with their peers from other schools in the province. Kendra and Nicole were invited to become members of the board.

To address our objective of establishing a greater presence in high schools, Caretakers Canada has decided to publish a booklet, "Guidelines for successful Student Conferences". Board member Patrick Wood, who coordinated SPEC 95 at Amherst High, will work with students from Sackville High to develop content for the publication.

Meanwhile, Donna Gillespie will start correspondence with the four schools (Cabot Jr. & Sr. High, North Queens, Yarmouth and Parrsboro High Schools) who are interested in hosting SPEC 97.

#### **International Conference up-date**

An invitation to participate the 11th CEI Global Conference, on "Environment and Communication", to be held at Midreshet Sde-Boker in the Negev Desert, Israel, was distributed during SPEC '96. Those with access to the World Wide Web will find a CEI homepage with information about the conference at <<http://remat-ncegev.org.il/caretakers>>.

#### **Resources**

Caretakers Canada is funded and supported by its members and partner organizations such as the Seagull Foundation, the Nova Scotia College of Art and Design and by contributions from departments of the Nova Scotia government. A standing fund of

\$ 1000 is maintained for loan to the school hosting the annual Student Provincial Environmental Conference (SPEC), as part of Caretakers' support for SPEC.

In previous years the Seagull Foundation has provided matching funds to allow Caretakers to work with NSCAD students to design and publish high-quality posters on environmental themes. These are in turn distributed to high schools throughout the province, where they are sold for local fundraising. This year, in addition to raising the initial funding for the next poster project, we want to be able to finance the publication of "Guidelines for Successful Student Conferences".

And each year the board looks for funding to subsidize student and board member travel to the international conference, to meet the cost of international communication, and for occasional direct contributions to the international organization.

#### **Board Members:**

- Paul Schwartz (Chair), N.S. Dept. of the Environment 902 465-8938, <[hlfxtm.envi.schwartz@gov.ns.ca](mailto:hlfxtm.envi.schwartz@gov.ns.ca)>
- Patrick Wood (Treasurer), Student, Dalhousie U., 902 422-9771, <[pwood@is2.dal.ca](mailto:pwood@is2.dal.ca)>
- Don Black (Secretary), Village Productions Co-op Ltd. 902 423-9005, <[ae533@chebucto.ns.ca](mailto:ae533@chebucto.ns.ca)>
- Donna Gillespie, Astral Jr. High School, 902 462-8700, <[nstn0300@fox.nstn.ca](mailto:nstn0300@fox.nstn.ca)>
- Brian Buchanan, 902 425-6249
- Kathryn Graves, Kathryn Graves Associates, 011 52 1382-4165 fax Box 672, Halifax, Nova Scotia B3J 2T5 Canada

#### **General Membership:**

Support for Caretakers Canada can be expressed by membership at \$15/yr. for individuals, and \$30/yr. for groups.

#### **Thanks**

The board would like to especially thank the many students and teachers in Nova Scotia who renew our inspiration with theirs and Canada World Youth, who have kept provided, our postal vox faithfully.

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## Conference Announcements

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### European Environmental Education Fair

University of Lüneburg, Germany  
24-26 September 1997

University of Lüneburg  
Department of Ecology and Environmental  
Education  
Wilschenbrucher Weg 84  
D-21335 Lüneburg, Germany  
phone/fax Prof W. Leal Filho on +49-4131-714373,  
e-mail: leal@uni-lueneburg.de.

**What is the European environmental education fair?**  
The Fair is an European event aimed at presenting new approaches, projects and methods of technology-based environmental education, as well as publication in this field from European countries. It consists of a unique opportunity being provided to European organisations involved in the field of environmental education and information, to display their products, disseminate their projects and technologies on environmental information and to interact with German experts working in the area.

**What does it consist of?**  
The event consists of two sectors. On Sector 1, a display of projects, computer programmes, internet-based projects and publications on environmental education of wide interest is being organised. It will occupy the Exhibition Hall of the University of Lüneburg where, for the two and a half days of the event, materials will be displayed. Sector 2 consists of seminar sessions, where presentations on various aspects related to environmental education research (both in formal and non-formal teaching), projects and information-based technologies on environmental education will be presented. Four seminar rooms, with varied capacity, located at the same building as the Exhibition Hall, will cater for the maximum interaction between exhibitors, speakers and participants.

#### Who can participate?

Any person or institution involved with environmental education and interested to display and disseminate his/her work is encouraged to attend the meeting. No matter if you wish to present the results of a research study, the outcomes of a project, your latest publication or the result of multi-media initiatives (including internet based projects) the Fair will give you the opportunity to put the message across. As the meeting is being organised in liaison with the

Commission of the European Communities (CEC), if your project has been supported through awards in the context of SOCRATES, LEONARDO, ERASMUS or DG XI, you are especially encouraged to attend, since it will give you an extra opportunity to interact with fellow awardees.

#### How can I participate?

Participation at the Fair is subject to pre-registration. If you wish to attend, either in sector 1 of 2 (or in both), you will need to complete the 'Registration and Abstract Form' as soon as possible, but not later the 30th June 1997. Unfortunately, late entries cannot be processed.

#### How much does my attendance cost?

Fees for participants are DM 130 for a single sector or DM 200 for both sectors (e.g. for the display of materials and presentation at the seminars). This entitles participants to the event's folder, refreshments during the opening time of the displays, display space and inclusion in the official Fair programme. For organisations Central & Eastern Europe, fees can be reduced or waived, according to each case.

#### Where can I obtain further information and a registration form?

For registration, please complete the form provided (you may photocopy it if you need more copies) and send it to the address below. For further information on the European Environmental Education Fair, please contact the address above.

### Where can you live....

by: Nathaniel Addai, Awudome '3' JSS  
Source: NK0 The Parrots  
Ghana

The bird says, it can build nests on roof tops,  
When there are no trees.  
The lion says it can live in caves,  
When there are no forests.  
The snake says it can live in holes,  
When there is no vegetation.  
The frog says it can live in water,  
When there are no lands.  
Where can we live, the human race,  
When there are no trees, no forests,  
and no dry lands?



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## Conference Announcements

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### School-twinning and Youth Project Management for Common Security

August 5th-9th 1997 Sigtuna, Sweden

Stockholm Water Company,  
Chairperson: Hans Levander  
S-10636 Stockholm, Sweden  
fax: +46-8-7362022  
E-mail: sympos@sthwat.se

This is the second announcement and invitation for an international conference on School-Twinning and Common Security. This invitation is specifically directed to around 25 organisations engaged with youths and schools connected to vital concerns of our time like the environment and human rights.

The conference could also be considered as a workshop on school and youth international cooperation. The Swedish Ministry for Foreign Affairs will be the main sponsor of this meeting. Minister Mrs Lena Hjelm-Wallén believes that schools can make an important contribution to international common security through school-twinning, youth communication, common campaigns and projects. Sweden will, with its recent position in the UN Security Council, stress the importance of building new security structures for the benefit of violence and war prevention.

#### Venue

The beautiful town of Sigtuna, close to Stockholm and 15 km west of Stockholm-Arlanda Airport. The conference will take place at the Sigtuna Boarding-School with lodging in modern and comfortable 1-2 bed rooms. Good facilities for swimming, jogging, walking and talking.

#### The aims of the conference:

- To discuss the concept of school-twinning, youth project management, international and global common security.
- To get detailed information on the participating organisations activities.
- To plan for future cooperation, campaigning and synergistic networking.
- To produce a statement on 'school-twinning and youth project management for common security'. Such a statement could be sent to Ministries of Education, to the national missions at the United Nations, to the UNESCO National commissions.

#### Programme

We are planning for a five day conference with lectures, posters, workshops and a social programme. We will also have the opportunity to meet with representatives from the Stockholm Embassies. We expect each participating organisation to bring information about their organisation and current activities. Each participating organisation will be given time for oral and poster presentations. We suggest one or two representatives come from each organisation. If youth members are involved in your organisation, please involve at least one of them.

#### Day to day agenda

Sunday August 3rd or Monday August 4th:

- Arrivals

Tuesday August 5th

- Opening ceremony including lecture by a representative from the Swedish Ministry for Foreign Affairs
- Poster Session-overview, Meeting with Representatives from the Stockholm Embassies.

Wednesday August 6th

- Lecture on Common Security
- Presentations by participating organisations, Workshops

Thursday August 7th

- Lecture on Modern Information Technology
- Presentations by participating organisations, Workshops

Friday August 8th

- Lecture on Youth Project Management
- Presentations by participating organisations
- Visit to the Stockholm Junior Water Prize exhibition

Saturday August 9th

- Reporting, Statement, Closing ceremony

afternoon Saturday 9th or Sunday 10th

- departures

Sunday August 10th-Friday August 15th

- Stockholm Water Symposium: With Rivers to the Sea

#### Financing

Conference expenditures including lodging and venue will be sponsored by the Swedish Ministry for Foreign Affairs. Participants will have to pay for travel expenses (if problems, the conference could discuss some support).

## Environmental Briefs

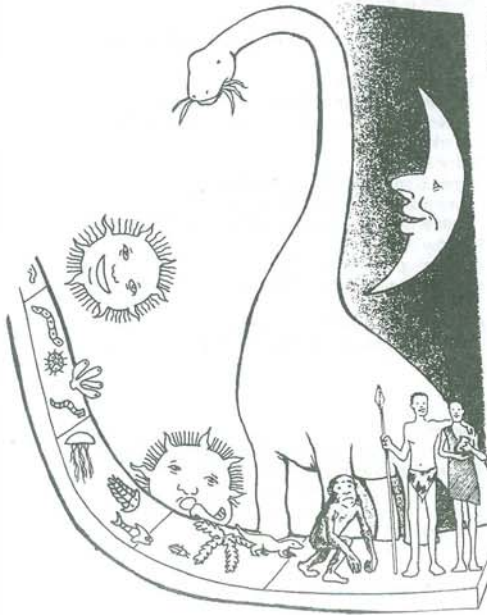
### The variety of life

Source: 'Action'  
The Environmental Health Magazine  
PO Box 4696  
Harare - Zimbabwe

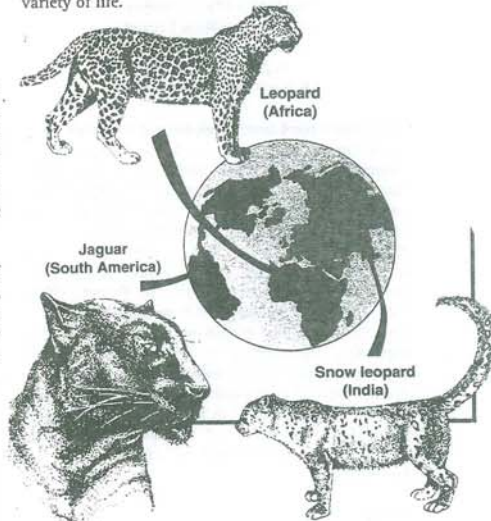
#### From a few lifeforms to many

If we imagine that the Earth is just one day old, then between midnight and sunrise there was no life. Simple life forms developed in the morning. Animals and plants appeared only late in the afternoon, and it was nearly sunset before they adapted to living on the land. Late at night, dinosaurs, mammals and apes appeared, while just before midnight the first evidence of human life was found.

Today, hundreds of thousands of different types of creatures inhabit the earth. Some like the crocodile, have not changed much over time. Others such as birds, show great changes. Dinosaurs, which were unable to adapt to a changing Earth, are now extinct.



These three animals look different, yet they are closely related to a common ancestor. Over time they became separated from each other and adapted to their new environment. Differences in light, water, soil, and temperature between regions of the world have encouraged a variety of life.



Many animals which today look different evolved in this way from a single common ancestor.

A long time ago there was only one type of carnivorous animal. Dogs, cats, bears, hyenas, weasels, civets, raccoons and mongooses are all descended from this one type of animal.

Government is now giving district councils and wards the authority to **manage** their indigenous resources on behalf of the people.





## Globe



## Scope

### Local Environment

*Local Environment* is a new international journal focusing upon the growing area of local environmental and sustainable policy, politics and action, defined in the broadest possible manner. It addresses three policy arenas in terms which encompass both 'academic' and 'practice' issues and debates. The composition of the editorial boards of the journal reflects the Editors' intention that local environment will serve environmental and sustainability policy makers and practitioners in central and local governments, and the NGO and private sectors, as well as teachers, researchers and students in higher education. Full details on *Local Environment* are available from the publisher Carfax Publishing Company, PO Box 25, Abingdon, Oxfordshire OX14 3UE, UK. By E-mail: [marketing@carfax.co.uk](mailto:marketing@carfax.co.uk)

### Teacher Education for the Environment: European Perspectives

Edited by: Walter Leal Filho & Kathryn O'Loan  
ISBN 1 85070 772 3; Price: £ 16.50; 150 pages

A collaborative European viewpoint presented by member of the Euro-Awareness project of environmental education. Each chapter provides background information on national perspectives of the meaning of environmental education in relation to teacher training policies and programmes. The book will be of interest to teacher educators, co-ordinators, curriculum developers and researchers involved or interested in environmental education.

### Environmental Education materials wanted!

Teachers want good quality Environmental Education materials. But with thousands of products to select from, deciding which materials best meet their needs can be overwhelming. To help provide some guidance, the National Environmental Education Standards Project is in the process of developing a teacher's resource guide to quality Environmental Education materials.

When completed, the guide will be widely disseminated to educators.

We are looking for a broad range of materials to include in the resource guide (e.g., curriculum guides,

CD-ROMs, laser discs, posters, video tapes etc.), covering a variety of Environmental Education topics. The materials should be designed for use in educational settings and should include at least some sort of "teacher's guide."

Panels of classroom teachers, environmental educators, curriculum developers, and content specialists will extensively review all materials to be included in the resource guide. The review criteria are drawn from Environmental Education Materials: Guidelines for Excellence.

If you have Environmental Education materials that you would like to submit for review, please send two copies to Bora Simmons, see address above.

We prefer that you donate the materials, which go to the Resource Library of the Environmental Education and Training Partnership (EETAP), funded by U.S. EPA. If necessary, we can return materials to you after the review.

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### NAAEE Publications Profiles

*Environmental Problem Solving: Theory, Practice & Possibilities in Environmental Education*

Edited by Lisa V. Bardwell, Martha C. Monroe, and Margaret T. Tudor. Intended for teachers, EE practitioners and professionals, this book combines problem solving theory with its practice in EE. It provides a theoretical framework that explains how learners approach problems and the skills they need to become problem solvers.

Highlighted are overviews from William Hammond, Harold Hungerford, Ian Robottom, and William Stapp on their approaches to teaching environmental problem solving. Identifies common characteristics of effective problem solving practice. Several classroom activities are included as examples of how educators can help learners gain specific skills to enhance their problem solving abilities. 125 pp.

1994. ISBN 1-884008-13-5 \$ 16 nonmembers / \$ 13 members; plus \$ 2.50 S&H

