GUIDEBOOK

COMMUNITY-BASED APPROACH TO EDUCATION FOR SUSTAINABILITY

DEVELOPING A NEW GENERATION OF LEADERS THROUGH SCHOOL-BASED PROGRAMS LINKED TO COMMUNITY ISSUES

Institute for Sustainable Communities

Partners in Education (PIE) Project

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GUIDEBOOK

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PART 1

CHAPTER 1 INTRODUCTION

The goal of this book is to help communities address their economic, social, and environmental challenges in a sustainable way by creating a lifelong learning culture—supported by community-based education—that is shaped and shared by all members of the community.

What do you need to know to be able to use this book? Why was this book written? What are the most critical concepts in this book? And, what is the background of education for sustainability in Central and Eastern Europe (CEE)?

I.1. PURPOSE

Goal

The goal of this book is to help communities address their economic, social, and environmental challenges in a sustainable way by creating a lifelong learning culture—supported by community-based education—that is shaped and shared by all members of the community.

Objectives

The main objective of this book is to support the implementation of ISC's community-based education initiatives in CEE by providing:

- an introduction to ISC's approach to community-based education for sustainability; and
- tools to design and strengthen community-based education programs.

Audience

This book is written for ISC's partners and staff to guide their collaboration in setting up and strengthening community-based education for sustainability projects. The audience includes:

- *trainers* of ISC's education projects from CEE and the U.S.;
- *classroom teachers* (pre-school, K-12);
- *community leaders* who are often non-formal educators.

Rationale

There is a growing concern about the gap between policy recommendations (international and national levels) and the general practice of education about sustainable development. For example, the most important international policy document on sustainable development, Agenda 21 (Rio, 1992), clearly advocated for "re-orienting education" towards sustainability to motivate people to have sustainable livelihoods with a smaller ecological footprint and more active participation in a democratic society.

Over the past 10 years, however, only a few nations were able to make the necessary changes in their national education systems to follow this non-binding recommendation. The upcoming Rio+10 conference (Johannesburg, September 2002) provides an excellent opportunity to both: 1) reflect on the forces hindering and advancing education for sustainability; and 2) develop effective tools to disseminate good strategies to better link policies to reality.

Both Poland and Hungary have developed a national strategy for environmental education and are now designing support mechanisms and allocating resources to implement the strategy to translate policies into everyday practice. The strategies talk about environmental education, but the content covers all aspects of education for sustainability (see sidebar on next page for online resources).

This book is described as a working document because ISC and its partners will continuously update the content based on their everyday practice in classrooms and other learning events.

This book was inspired by opportunities created by these policy changes; hence providing good examples of successful implementations of policy recommendations and offering innovative grassroot initiatives that can lead to policy changes—not only in Poland and Hungary—but to other countries in Central and Eastern Europe.

How Was this Book Developed?

It was jointly developed in 2001 by ISC's Polish and Hungarian education partners and the education staff at ISC within the framework of the Partners of Education Project (PIE), the third year of ISC's Education for Sustainability (EFS) Initiative (http://www.iscvt.org/psregional.html).

The strong partnership among ISC and Polish and Hungarian educators, however, has evolved over the last nine years and was significantly supported by several Vermont, U.S. organizations, especially Shelburne Farms (http://www.shelburnefarms.org), the Vermont EFS Project, and the Center for a Sustainable Future (http://csf.concord.org/esf/).

This book builds both on past ISC training manuals that focused more on traditional environmental education and the subsequent education for sustainability guidebooks developed in Poland and Hungary. Both guidebooks are new to these countries.

Activities in this book—many original, others adapted—are designed to meet the special characteristics of EFS in Central and Eastern Europe. Although some activities have been tested, the majority of the materials are currently (2001/2002 academic year) being implemented for the first time. The revised editions of the Hungarian and Polish guidebooks will be published in 2002/2003. You can view their table of contents (in English) under V. Reference Materials (V.7&8) and the whole publication at the following URLs:

Hungarian EFS Guidebook (2001)
http://korlanc.ngo.hu/download/piekonyv.doc (in Hungarian)

Polish EFS Guidebook (2001)
http://www.eko.wroc.pl/pie (in Polish)

Why a Working Document?

This book is described as a working document because it is literally in the works. This is the first effort to publish ideas on community-based education for sustainability developed by ISC's education partners in Central and Eastern Europe. ISC and its partners will continuously enrich and update the content based on everyday practice in classrooms and other learning events: new activities will be added and existing ideas will be revised. Your ideas are welcome!

ONLINE RESOURCES

National Strategies for Environmental Education

Polish Environmental Education Strategy (2001)
http://www.mos.gov.pl/mos/publikac/Raporty_opracowania/strategia_ang.pdf

Hungarian National Environmental Education Strategy (1998, 2001)
http://www.bocs.hu/kornev/strateg/index.html (in Hungarian)

Hungarian Environmental Education Concept of the Ministry of Education and Ministry for Environment (2001, 2002)

Let's Have a Dialogue!

Education for sustainability is a new, complex field that needs to develop through different avenues including experimenting, research, trial and error, and the classic dialogue. What is a dialogue?

"The word dialogue comes from the Greek *dialogos*. *Dia* means through. *Logos* means the word, or more broadly, the meaning . . . . In dialogue, a group explores complex difficult issues from many points of view. Individuals suspend their assumptions but they communicate their assumptions freely. The result is a free exploration that brings to the surface the full depth of people's experience and thought, and yet can move beyond their individual views."

Peter M. Senge, from The Fifth Discipline

We hope to have a dialogue with you on education for sustainability! Please contact us.

I.2. BASIC CONCEPTS

Sustainable Development

"A new kind of economy with new types of costs (e.g., using clean water, cleaning polluted or waste water) and new types of benefits (longer and better quality of life for more people on the Earth)."

Witold Lenart, Poland

"Sustainable development is development that meets the needs of the present, without compromising the ability of future generations to meet their own needs."

World Commission on Environment and Development, known as the Brundtland Report, published as "Our Common Future"

"Sustainable development seeks … to respond to five broad requirements:

- integration of conservation and development;
- satisfaction of basic human needs;
- achievement of equity and social justice;
- provision of social self-determination and cultural diversity; and
- maintainance of ecological integrity.

International Union for the Conservation of Nature, 1986

"Sustainable development is any form of positive change which does not erode the ecological, social, or political systems upon which society is dependent."

William Rees

Community-Based Education

"To see local issues as bases, and local people as beneficiaries and resources of education/learning."

Dr. Judit Vásárhelyi, Hungary

Community . . .
a group of people with common locality, common interest and common aspiration. Other definitions do not require sharing the geographical place: Any group having a common interest, work or social relationship. This could be a classroom, school, neighborhood, town, state, region, nation, world, or any group of people coming together for a common purpose.

Community-based education is a planned teaching-learning process:

- *by the community;*
- *in the community;*
- *about the community; and*
- *for the community.*

"Community-based education is the education process connected and controlled by local community, on the base of their needs, conditions, and development strategy. It is shaped by the local community at three levels: planning (curriculum/development, programs, etc.), implementation (teaching-learning process), and evaluation (or quality-control system)."
Dr. Andras Victor, Hungary

"A learning approach that focuses on bringing stakeholders together to identify local community issues and develop appropriate educational program that would increase knowledge, awareness, and input of the people in the community addressing their own needs."
ISC Macedonia staff

"Community-based education is a participatory learning process that integrates formal (school-based) and non-formal (out-of school) education to facilitate widespread participation in re-orienting values towards community development and providing skills and knowledge for the entire population, not only for school-age students.

"Community-based learning can be a vehicle for starting the re-orientation towards sustainability at the grassroots level by tapping into indigenous wisdom, creativity, and using a rich network of youth and adults to disseminate new, innovative ideas."
ISC Education staff

Education for Sustainability (EFS)

"Education for sustainability means to direct our students' attention towards future consequences of their actions and lifestyles of today. Education for sustainability has to include—beyond knowledge about our environment—self-knowledge, attitudes to problems, forming behavior and habits, conscious consumerism, and deepening the feeling of responsibility. In this educational process, scenario development is a key concept."
Hungarian Educators

- education that goes beyond disciplines;
- education that uses all potential educators and people who provide good examples;
- education that uses all reality symptoms;
- education that uses resources from both educators and learners; and
- education that is looking for self-confirmation in action.

Polish educators

"Education for sustainability is a lifelong learning process that leads to an informed and involved citizenry having the creative problem-solving skills, scientific and social literacy, and commitment to engage in responsible individual and cooperative actions. These actions will help ensure an environmentally sound and economically prosperous future."
An Agenda for Action, (U.S.) President's Council on Sustainable Development, 1994

"Education for sustainability has the potential to serve as a tool for building stronger bridges between the classroom and business, and between schools and communities. The term "education for sustainability" or "sustainability education" complements a number of other fields such as environmental education, global education, economics education, development education, multi-cultural education, conservation education, outdoor education, global change education and others. Education for sustainability is considerably broader and encompasses many aspects of these respected and established fields of study. It may embrace components from traditional disciplines such as civics, science, geography, and others."

Second Nature
(http://www.secondnature.org)

Learning for sustainability promotes discussion and debate on a vision for sustainability among all members of society. It equips us all with the knowledge, skills, and values needed to participate in a sustainable future.

The Ontario Learning for Sustainability Partnership

"Environmental education (EE) is a process aimed at developing a world population that is aware of, and concerned about, the total environment and its associated problems, and which has the knowledge, attitudes, skills, motivation, and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones."

UNESCO, Tbilisi, 1978

What is the difference between environmental education and education for sustainability—for you?

Read what others think:

http://www.xs4all.nl/~esdebate/index.html

THE CALF STORY

ABOUT LIFE AND SUSTAINABILITY

. . . a wise dialogue between traditional and large scale, industrial farming.

A little **Hungarian Grey Cattle** calf, strolling around in a pasture somewhere in the Great Hungarian Plain, meets a black-and-white **Holstein-Fries** calf.

"Who are you?"—asks the Holstein-Fries. "I've never seen such an old fashioned-looking calf."

"I am a Hungarian Grey Cow, member of an old, traditional breed. My ancestors lived here for centuries—perhaps they arrived with the first Hungarians. We live all year in open pastures, facing storms, snow, and summer heat."

"Old, traditional—but what is the use of your breed? Our breed gives 6,000 liters of milk every year. Can you see that nice white building over there? That is the **dairy plant.** Our milk is made there into such wonderful cheese and fruit yoghurts, which are sold all over Europe in fantastic-looking packaging! Does your breed give any milk at all?"

"Of course it does. But not a lot . . . . But we are not kept for milk."

"What are you kept for?"

"We are a spectacle in the national park. Children love us!"

"Spectacle, love, childish, naïve, nostalgic things, living in the past! **Modern agriculture** is concerned about the **growth** of the needs of the growing population of the Earth, so it produces modern breeds that give a lot of milk and a lot of meat that could feed a lot of hungry people. Selling cheese and meat also brings a lot of money, **financial capital,** which you can save in banks so future generations can also take care of their needs. You see, everyone benefits!

"Our values are appreciated: we live in nice, spacious, well-lighted, air-conditioned stalls, manure is washed out with water, a computer plans and portions our nutrient rich, **granulated fodder,** we drink from shining self-drinkers—not from muddy puddles. A veterinarian guards our health, **vaccinates** us, and gives us vitamins and **hormone products** to keep us fit and help us grow bigger."

Little grey cow went home sadly and asked her mother, "Are we really out-of-date with no place in a developing world?"

Her mother consoled her. "Not at all! We are very important too—only slightly *otherwise* than Holstein-Frieses. Endless pastures of the past are disappearing, together with their people and animals, together with their **ancient knowledge,** culture and arts. In national parks, visitors can see their own past—and children can learn that milk does not grow in supermarkets."

"But, we give less milk, less meat, producing less money—and there are more and more people, and they are hungry and need money!" argued the little calf.

"The Holstein-Fries give more milk, more meat—but what does it costs? They eat fodder that has to be produced and brought here from far away; we eat the grasses of the **pasture.** They need air-conditioned stalls; we live all year under the sky. Fodder-producing, modern stalls and medicines cost a lot of money, consume energy, and pollute our environment. Future generations need money, of course, but they need energy resources, clean air, and water as well.

We fit far better into **organic farming**, which considers the **carrying capacity** of the environment, and **stewards natural resources,** not only for *our* needs but with future generations in mind. We fit into another kind of development that does not destroy, but extends the resources of our Earth and the spiritual wealth of humanity—sustainable development. We are not able to do it alone any more, of course, there are only very few of us left. But a wise dialogue and co-development with the Holstein-Fries and their human supporters can bring about happy grazing for all."

VOCABULARY

(in alphabetical order):

Ancient knowledge: accumulated through generations, not necessarily in written or other tangible forms. This knowledge, or wisdom, takes all human needs into consideration in a multi-generation perspective. Planning for seven generations is a typical manifestation of ancient knowledge.

Carrying capacity: maximum number of organisms that a certain area (land, water) can support long term, without being degraded.

Dairy plant: in modern dairy plants, milk is sterilized (protecting consumers from illnesses from cattle) and converted into a range of products using complicated production methods and by adding many natural and artifical ingredients. The results are long-lasting, tasty, and good-looking products, sometimes more healthy. These products can be transported easily and sold for profit in many countries.

Financial capital: money that can be used for a given purpose. There are other capitals, e.g., social capital or human resources (skills, knowledge, moral, habits, etc.).

Environmental capital: "goods" that we get from nature (and therefore often take for granted). Also called natural resources—materials supplied by nature (clear air and water, solar energy, soil, minerals, coal,etc.—that can be used to make or do something beneficial for humans.

Granulated fodder vs. grass-based dairy. Grass-based dairy animals are kept in pasture. Though inexpensive, animals must be strong and healthy to live under the open sky in any weather, and when there is shortage of grass, they cannot develop well. In modern agriculture, animals are often kept partly on granulated fodder, which is rich in nutrients, protects health, can be portioned and managed easily, and promotes quick growth and high yields. Producing granulated fodder requires extra fields for producing grains fabricated into fodder in factories; and it has to be transported to the animals.

Growth vs. development: Growth: increasing quantity. Development: increasing quality (which can be determined in many—sometimes contradicting—ways).

Holstein-Fries: breed of superb milk-producing ability, developed in the USA and Canada from black-and-white lowland cattle of Northwestern Europe. They are now kept all over the world.

Hormone products: external vs. natural hormone production: most life processes of living organisms—e.g., growth, reproduction—are regulated by hormones, substances produced by organisms themselves. Giving extra hormones can quicken certain processes (e.g., cattle grow bigger or hens produce more eggs), but it also can cause health problems both in animals and consuming humans.

Hungarian Grey Cattle: powerfully-built, grey breed of cattle reared for hundreds of years in the Great Hungarian Plain (perhaps coming in with the settlement of Hungarians in the 9th century). They are kept for meat and milk. Bulls have black necks and huge horns. Beautiful traditional artifacts were carved from its horns. Its meat is healthier than that of modern breeds because of lower fat content, so it is often requested.

Modern agriculture vs. traditional agriculture. Modern agriculture has developed in industrial countries where human labor is expensive but machines are inexpensive (in relation to agricultural products) and easily available. Most human and animal work is undertaken by machines (consuming much energy) and by chemical means (causing environmental pollution). Big fields and modern breeds are characteristic. Big fields attract many parasites and eliminate their natural enemies, so pesticides have to be used. Animal husbandry is separated from plant cultivation, so artifical fertilizers are needed. Traditional agriculture develops over hundreds or thousands of years in traditional communities. Based on ancient knowledge accumulated by generations, it is adapted to local environmental conditions, plant and animals species, and human needs. It usually needs much (and often very hard) human and animal work and hand-made tools, but requires no artifical fertilizers or pesticides and has a low energy demand. It can be associated with small parcels of land and many native breeds. Its products satisfy local needs.

Organic farming: agriculture that uses natural resources and processes without destroying them. Works without chemicals or big machines, and protects soil through use of natural enemies, local breeds of animals and plants, and much human work.

Pasture: open or semi-open grasslands; places for grazing. They are parts of traditional agricultural landscapes. With the decline of traditional animal keeping, they are in danger of diseappearing altogether along with their rich flora and fauna.

Stewardship of natural resources: responsible management of natural resources that secures their sustainability.

Traditional breed vs high-breed cow: Traditional breeds of domestic animals were developed through a process of some hundred (or more) years by artifical selection from animals living originally in that area. They are adapted first of all to local conditions and local needs. They are usually tough, unassuming, but produce less then modern breeds. Modern high breeds produce lot of the needed goods (eggs, milk, meat, etc.) but they are usually more sensitive to illnesses and need more expensive keeping conditions.

Vaccines vs. natutal immunity: natural immunity is natural protection of living organisms against illnesses. It can be strengthened or replaced by vaccinating: injecting dead or weakend pathogens or serums into animals (or humans). Vaccination is important in preventing illnesses and epidemics.

As the "willingness-to-act" attitude helps learners to make the crucial transition from knowing to doing, it becomes a critical concept in education for sustainability.

I.3. SPECIAL CHARACTERISTICS OF CENTRAL AND EASTERN EUROPE RELEVANT TO EDUCATION FOR SUSTAINABILITY

Development Characteristics

The region belongs to the North/West (within the developmental division of North versus South and East versus West) with special economic and social transition issues. The transition and the still abundant natural, social, and cultural resources offer opportunities to choose a different—not the Western—way of development.

The creative use of local resources still prevails, such as "producing 3 kg sausage from 1 kg meat." Many people are still proud of their agricultural roots. Local, family-based, traditional agriculture is still a natural part of the culture. Sustainable development includes a restorative step for the Western development pattern, while this is not yet needed in CEE. Ahead of most countries, Poland has endorsed sustainable development in its constitution.

The region has seen a dramatic change from local or regional economy to one that is clearly global in nature. The major change from "no-choice" to "everything is possible" in terms of economic and social necessitite of citizens happened almost overnight. This has put people in constant decisionmaking mode in their everyday lives. People were not, and to a large extent still are not, prepared for decisionmaking of this frequency, particularly since they are not supported by appropriate information or education.

Nature Education

Concern for, and living in, nature has never ceased in many CEE countries. Traditional environmental education naturally lends itself to nature protection but the economic and social necessities of human activities were often ignored. The transition from nature education to a more holistic education paradigm requires a thorough understanding of different development patterns.

Living for the Future

Living for the future is an old story. Living in the present for the future may be inconceivable and uninteresting for many. People in Central and Eastern Europe were asked and expected to live for the future for nearly half a century. Therefore, the similar agenda of EFS raises eyebrows and deep skepticism.

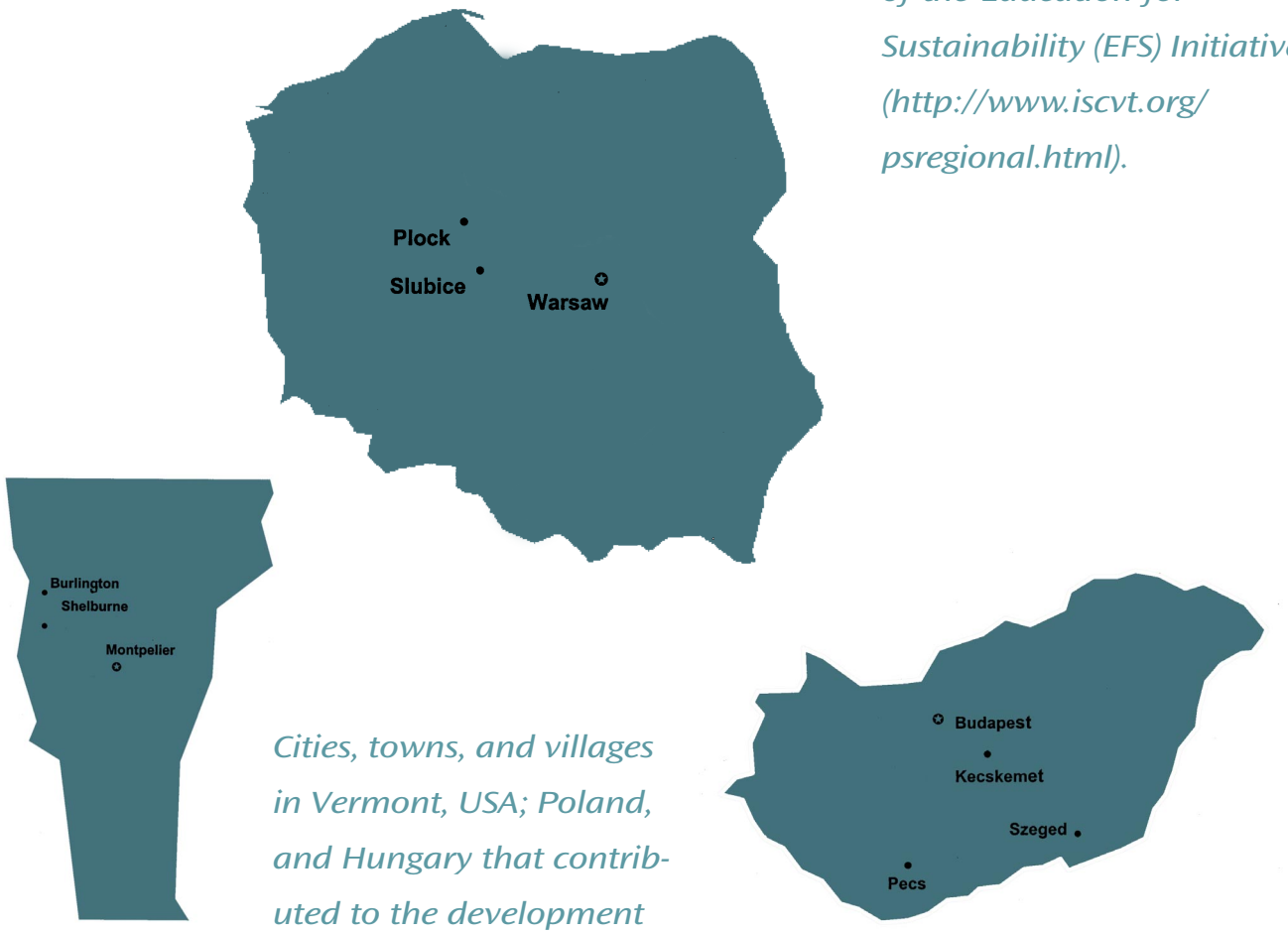
Volunteerism

Local, informal volunteering traditionally has always been a significant source of the social and economic capital in the region. Volunteerism for the benefit of the state or the company was forced for more 40 years, and resulted in this concept being viewed negatively. This may be changing as a new, organized form of volunteering—with training and mutual appreciation—is on the rise. The current social and economic realities, however, do not allow a rapid spread of its implementation. People often can't afford to volunteer their time and expertise on a consistent and/or large scale.

Willingness to Act

The slow and unpredictable transition from "knowledge" to the actual "action" is considered a regional characteristic, and has been described as the peoples' "willingness to act." As the "willingness to act" attitude helps learners to make the crucial transition from knowing to doing, it becomes a critical concept in education for sustainability.

This guidebook was jointly developed in 2001 by American, Polish, and Hungarian educators as part of ISC's Partners in Education Project, the third year of the Education for Sustainability (EFS) Initiative (http://www.iscvt.org/psregional.html).



Cities, towns, and villages in Vermont, USA; Poland, and Hungary that contributed to the development of the project.

CHAPTER II ISC EDUCATION MODEL

One of the most convincing reasons for engaging community members in education is to make learning relevant to life.

Why would you involve community members in education at all? What are the boundaries between schools and their communities? What is community-based learning about? How do you set up community-based learning?

II.1. WHY INVOLVE COMMUNITY MEMBERS IN EDUCATION?

We are in a time when quality education is very important, when the future standard of life and the leadership opportunities of youth depend on the education they receive. So the question becomes, "Why involve people who are not certified teachers in their education?" It has been shown that community members often can provide experiences and skills that improve the quality of education for the benefit of the entire community.

Through Education, Participation

Communities get involved in student/youth education when they feel a need to re-visit the long-term, fundamental purposes of education such as gaining self-awareness, acquiring the knowledge and skills for getting a personally meaningful job, and living a happy, informed, and responsible life.

Making Learning Relevant to Life

One of the most convincing reasons for engaging community members in education is to make learning relevant to life. Students drop out of school because they do not feel what they learn at school is relevant to their life—to the issues they are facing daily. You can make learning relevant to life by providing youth with a rich variety of opportunities to:

- learn about themselves;
- develop their full potentials;
- make more informed career choices; and
- become responsible citizens of a world that is increasingly interdependent in its economic, social, and environmental activities.

For some exemplar projects on how to make learning more relevant, see Linking Learning to Life (http://www.uvm.edu/~linking/), Community-based learning for students who lost interest in school (http://www.oid.ucla.edu/Cbl/index_body.html), and the Global Rivers Environmental Education Network (http://www.earthforce.org/green/).

Developing the Local Community

Due to the reciprocity of teaching and learning, community-based learning develops not only students, but also the whole community's capacities! When adult community members are engaged in teaching, you:

- nurture inter-generational understanding and cooperation;
- help teachers to connect students to the most up-to-date information in many fields; and
- invigorate the public and private sectors' and civil society's development by tapping into the creativity of students and their interaction with different people.

For an excellent example of developing the local community, see Environet—Interactive EE for Landscape and Nature Protection, Hungary (http://www.foek.hu/kornet/).

The central challenge of sustainable development is balancing our social and economic needs with the currently available environmental resources.

Innovative public participation is a long-term approach to the development of sustainable communities.

Diversity: A Source For Innovation

The central challenge of sustainable development is balancing our social and economic needs with the currently available environmental resources. Can we satisfy our natural and constant desire for comfort, novelty, and fun with renewable resources? Although we know how to live more sustainable lives on a small scale and in relative isolation, we need a fair amount of creativity for our current large-scale business. Innovations are required to set up self-regulating, sustainable systems in our widely and wildly interdependent world.

As community-based learning regularly brings together diverse groups, it is a high capacity process for inducing creativity and generating innovations to meet the challenges of sustainable development. Social and cultural diversity is the most abundant source for creativity and innovation. The "Innovation Diffusion Game" provides an opportunity to explore this concept further (http://www.context.org/ICLIB/IC28/AtKisson.htm).

Social Fabric, Social Capital

When students learn together with parents, neighbors, business people, farmers, and craftsmen on a regular basis (as they do in community-based learning), they meet people they otherwise would not. They become acquainted with and get to see parts of the community that would stay hidden in their regular school education. Students and community members mutually enjoy personalized attention, interest in their life, work, and aspirations. They feel important, their self-esteem grows, and their interpersonal communication skills become richer.

Through these personal interactions, the bonding among people—the "social fabric"—gets stronger, more diversified, and the sense of belonging and community deepens. For more information on sustainable measures and community capital, visit http://www.sustainablemeasures.com/Training/Indicators/Capital.html.

Participation Enhances Education

Community-based education strengthens the social fabric not only by bringing youth and various adult groups together in learning and teaching, but also through their joint participation in community projects. This joint action is a form of informed participation—one of the main goals of education for sustainability. Innovative public participation is a long-term approach to the development of sustainable communities, as related in Local Agenda 21 (http://www.iclei.org/iclei/la21.html).

As the Community Goes, So Goes the School, and Vice Versa

This reflects a systems-thinking perspective of school-community links. How does this schools-community interplay work?

A strong community-school link elevates the profile of education in the community, and consequently leverages more support for education. Look at the handout on "Education from a Systems-Thinking Perspective" (Chapter IV) to find out how investment in education increases the community's well-being.

Two other valuable resources for further information are Schools that Learn (http://www.fieldbook.com) and Alan November (1992): Schools as Community Developers (http://www.anovember.com/articles/community.html).

More Schooling, Bigger Ecological Footprint?

If investing in education brings about wealth and health, should we just provide more money to our schools and hire more and higher quality teachers? Are we going to be better off in terms of sustainable development?

The relationship between education and sustainable development, unfortunately, is not as simple as getting more education results in a more sustainable society. In fact, some of the most educated "schooled" nations have the biggest ecological footprint. The problem lies not with the quantity of education but with the quality—the values it is built around. To explore more about Ecological Footprints, see Center for Sustainability Education (http://www.globaled.org/sustain/sustain.html) and Redefining Progress (http://www.rprogress.org/).

Re-Orienting Education Towards Sustainability

The current education system promotes the values and the interest of the "global" consumer society. To balance this, Agenda 21 (chapter 36) advocates for "re-orienting education" towards sustainability: to motivate people to have sustainable livelihoods with a smaller ecological footprint, and to participate in a democratic society. Community-based learning can be a vehicle for starting the re-orientation at the grassroots level by tapping into indigenous wisdom, creativity, and using a rich network of youth and adults to disseminate new, innovative ideas. For further information on re-orienting education towards sustainability, visit http://www.igc.apc.org/habitat/agenda21/ch-36.html.

Agenda 21 Encourages Community-Based Learning

Agenda 21, chapter 36, sets out general recommendations for how to involve the local community in re-orienting education towards sustainable development. The vision outlines a holistic learning process where:

- formal and non-formal education are combined;
- environmental and developmental concepts are integrated in all education programs; and
- the causes of major environmental and development issues are analyzed in a local context.

Agenda 21 (chapter 36) advocates for "re-orienting education" towards sustainability: to motivate people to have sustainable livelihoods with a smaller ecological footprint, and to participate in a democratic society.

How you define community will frame the characteristics of your approach to community-based education.

II.2. WHAT IS COMMUNITY-BASED LEARNING?

What makes learning community based? Are there good examples of community-based learning? What is a community? What is the role of community-based learning in a world where communities' social and economic boundaries are blurred, where people study, work, and play far from their home community, where food and fiber is grown "somewhere else," and where we can hardly see the full impact of our actions?

The Way You Define Community is Key

We characterize community as a *group of people in a common geographical locality with common interests and common aspirations.* Your definition may be different, based on your culture, history, and many other factors. How you define community will frame the characteristics of your approach to community-based education.

Essentials of Community-Based Learning

There are many viable definitions of community-based learning. Here, four characteristics capture the common essential elements for our purposes. Community-based education is a planned activity:

- by the community (group of people);
- in the community (common geographical locality);
- about the community (with common interest); and
- for the community (with common aspiration).

Essential ingredients of community-based learning identified by Ukrainian educators include:

- *A multi-stakeholder community group* that is motivated to deal with local issues;
- *Cooperation of community members* from different groups such as school teachers, teacher trainers, NGOs, government agencies, business representatives, national parks, church, etc.;
- *Leader* who is committed and able to facilitate the dialogue between the schools and the community;
- *Local issues* that unify community members to take action;
- *Local data* that is relevant, up-to-date, and specific to local issues;
- *Available resources,* e.g., financial, human, technology, time, etc.;
- *Active/interactive teaching* methodology that promotes critical thinking and encourages students to take responsibility for their own learning; and
- *Plan* developed by community members.

The following is a list of basic characteristics of community-based learning:

- a volunteer initiative of local community members;
- relevant to students' daily life;
- both the community and the school benefit from the cooperation;
- participatory through multi-stakeholder engagement;
- planned and implemented by both teachers and non-teacher community members;
- local priorities are addressed within the framework of global issues;
- a goal and objective;
- a multi-year process;
- action oriented with an emphasis on cooperation skills;

- offers students the opportunity to take local action and see the impact and consequences of their actions;
- interdisciplinary;
- intergenerational;
- takes place both/either at school and/or after school;
- uses interactive learning methods; and
- makes sure all students have the opportunity to learn in their preferred learning style (c.f. Kolbe learning styles) and intelligence (c.f. Howard Gardner's multiple intelligences).

For a complete set of definitions for "community-based education and learning," see handout in Chapter IV.

Youth and Participating Community Members Benefit

Community-based learning contributes to students':

- understanding and appreciation of community issues;
- development to become responsible citizens; and
- ability to become leaders.

Every adult community member who participates in the process benefits from joint learning. Even those who do not participate in the process benefit—because the community as a whole operates as a system.

Results

Community-based learning results in two closely related, interdependent outcomes:

- youth have the skills, ability, and motivation to meet the challenges of the 21st century; and
- community life—health, wealth, cooperation—is enriched.

Community-based education has distinguishable immediate, medium-term, and long-term results.

Immediate results

- locally relevant curriculum approved by relevant authorities, piloted in the demonstration communities;
- high quality environmental education teaching materials are developed in the local language;
- interested community members, classroom teachers, and teacher trainers are able to teach about local issues;
- students and their parents are knowledgeable about priority local issues;
- students, parents, and community members are willing to act on pressing local issues; and
- increased youth involvement in community projects.

Medium-term results

- classroom learning is linked and applied to community issues;
- in-country and regional network of community-based educators;
- interactive teaching and community-based education methods are integrated in teacher training; and
- community-based curriculum is regularly updated.

Long-term results

- youth leaders are making a difference;
- community members make more environmentally, socially, and economically responsible decisions;
- community members have high awareness of sustainable development; and
- citizen participation is higher in priority local issues.

Every adult community member who participates in the process benefits from joint learning.

Even those who do not participate in the process benefit—because the community as a whole operates as a system.

ISC's education model works in small and large, industrial and rural communities.

ISC's Education Model

This model works best where the education system is relatively decentralized and non-professional educators can also teach at school, but has also been adapted to work in more centralized education systems. In a decentralized learning environment, teachers have the right and opportunity to teach the lessons they developed with the local community.

ISC's community-based education model works in small and large, industrial and rural communities. In big cities, small groups like school-neighborhoods can take ownership of a community-based learning program. Community-based learning can happen at school and/or at after-school activities.

For further information on community-based education, see the following sections in Chapter IV:

- Assumptions;
- ISC's Community-Based Education for Sustainability Model;
- Timeframe of a Typical Pilot Project for Community-Based Learning; and
- Description of Project Components.

Formal and Non-Formal Education

Community-based learning is often equated with non-formal education. It very well can be the case if the school-based education is so centralized that no one can teach in schools but certified teachers, and no other curriculum can be taught other than the government approved, standardized national or state curriculum. In this case, community-based learning would need to take place within after-school activities.

If the formal education is more decentralized, and both schools and teachers have a certain degree of freedom in what and how to teach, the community-based curriculum can be integrated into the formal education. In this case, the community-based learning takes place both in-school and out-of-school, integrating formal and non-formal learning. This integration transforms the formal education into a comprehensive system of lifelong learning that engages a "critical mass" in the community to address sustainability.

Main Actors

The main actors in successful community-based learning projects include:

- the coordinator;
- curriculum writers;
- educators;
- multi-stakeholder group members; and
- resource people.

See Chapter VI for additional information on "Roles and Responsibilities in Community-based Learning" and a "Comparison of Conventional and Community-based Learning."

Laboratory and Partnership

Based on the level of involvement of community members, there are two main types of community-based learning programs:

1. where community is used as an out-of-school laboratory. It uses the community's resources—including human resources—only in the teaching process. The formal education establishment (e.g., classroom teachers, school administrators) controls curriculum planning and evaluation.

2. where the community serves as a partner in education. It invites the community to participate in all three stages: 1) designing the curricula; 2) teaching it; and 3) evaluating the learning outcomes. Teachers and community members share control and responsibility. Partnerships are difficult to establish but they last longer and provide the community with a more sensitive management structure because involvement throughout all stages both develops ownership and deepens commitment.

The Old Story

Community-based learning is as old as human history. It maintains the integrity of the community—vital for survival.

Before the introduction of schools, community-based learning was embedded in the daily life of a community. Children learned from their family and various community members. They learned specific skills and local traditions needed for growing food and fiber, building homes, and developing human and spiritual relationships in their specific bio-geographical location. By doing so, they learned how to live within their family and the larger community, and how to use their environment in a way that supported the needs of their own and coming generations.

The "curriculum" consisted of all the traditions vital to sustain and develop the community in its specific bioregional location. The main teaching methodology was modeling and engaging youth in daily life activities.

For further discussion on this concept, see Ancient Futures: Learning from Ladakh, India (http://www.serve.com/ecobooks/anfuture.htm) and globalization and its impact on local communities (http://www.lead.org/leadnet/virtualconf/past.htm).

New Stories

Community-based learning is still vital for survival: It offers contextulized, local knowledge that significantly contributes to the:

- *sense of impact* on the immediate environment, society, and economy; and
- *belonging* to the traditions, feelings of being needed and loved.

To review exemplar programs, see Community-Based Environmental Education in Hungary (http://www.korlanc.ngo.hu/news1.htm), and Community-Based Learning Examples, Vermont, USA (http://www.vermontcommunityworks.org/exemplars/exemplars.html)

Issue-Based Field Studies

Issue-based field studies are popular forms of community-based learning. Although field studies do not always include community members in planning, they provide excellent opportunities to study complex real-life issues through first-hand experience. Students learn to apply their academic knowledge, gain confidence in problem solving, and are encouraged to develop data-analysis and interpretation skills. These skills are essential in developing students' ability and efficiency to participate in community planning. For further information, see work done by the Field Studies Council, U.K. (http://www.field-studies-council.org/).

There are two main types of community-based learning programs:

- *where community is used as an out-of-school laboratory: and*
- *where community serves as a partner in education.*

Parents are the most interested, thus the most active community members in education due to their vested interest—that is, their children.

Youth Give Their Vision of Their City

"It is essential that our educational and governmental institutions do better at integrating youth into our community, supporting them in their efforts to make a commitment to serving and improving our community."
Burlington Legacy Action Plan

People in Burlington, Vermont, USA, worked together to build the vision of a sustainable city. The project made a special effort to involve young people in shaping this plan, since they will be the most affected by its outcome. For additional information on the project, see Burlington's Legacy Project (http://www.iscvt.org/psunitedstates.html) or City of Burlington (http://www.ci.burlington.vt.us/).

Engaging Local Businesses

Representatives of the community's private sector can contribute to the learning process in a variety of ways. For example, a community member who owns a family farm might invite a school group over to discuss the difference between small- and large-scale agriculture. In Japan, the Learning and Environmental Activities Foundation for Children (LEAF) works together with local schools and supermarkets to arrange a learning opportunity for 6th graders to explore environmental labels in their local supermarket. This activity helps students to make more informed consumer choices.

For more information on these programs, see the LEAF website (http://educat.lit.osaka-cu.ac.jp/~leaf/index.html) and Linking Learning to Life (http://www.uvm.edu/~linking/).

Parents as Teachers

Parents are the most interested and thus the most active community members in education due to their vested interest—that is, their children. The following websites and resources describe examples from several countries—Poland, Japan, and Vermont, USA—where local nonprofit organizations train parents to introduce young students (6-10 years of age) to the wonders of the natural world, ecological concepts, and environmental issues:

- **Change-makers, Ashoka Foundation: Parents as Partners in Education (http://www.changemakers.net/journal/01september/index.cfm), Resource: Children and Environment, Kiev, Ukraine;**
- **LEAF Learning and Environmental Activities Foundation, Japan (http://educat.lit.osaka-cu.ac.jp/~leaf/index.html); and**
- **Environmental Learning for the Future, Vermont, USA (http://www.vinsweb.org/education/whatiself.html).**

II.3. HOW TO SET UP COMMUNITY-BASED LEARNING

How do you attract the "right" people? How do you know you are "there"? What are the common pitfalls?

Road Map

Like a road map, the process described in this book does not tell you, the traveler, how fast you need to go, by which route, or even where you should end up. We provide you only with ideas of what to pack and what to expect on your journey. Before you even start packing for the journey, please read Alice's story—some very important guidance—that may end up being the most important travel advice.

One day Alice came to a fork in the road and saw a Cheshire cat in a tree.

"Which road do I take?" she asked.

"Where do you want to go?" was his response.

"I do not know," Alice answered.

"Then, " said the cat, "it does not matter."

Lewis Carroll: Alice in Wonderland

Two Phases: Pilot and Replication

There are two phases in a community-based learning program:

- the *pilot phase* lays the foundation; and
- the *replication phase* ensures that the results of the pilot phase become widely used.

The Pilot Phase

The pilot phase lays the foundation. The foundation of community-based learning consists of three main components:

- a committed multi-stakeholder community group;
- a good, jointly developed plan; and
- locally relevant learning materials and trained educators.

Seven Steeples of the Pilot Phase

Think of the pilot phase as building a community: You can either calculate every step or let it grow organically without rigorous control. Either way, the following seven "steeples" will be your major landmarks. You might visit these landmarks in a different order or more than one at a time:

- forming a multi-stakeholder core group;
- creating an inventory of needs (global and local);
- planning for a better community;
- leveraging resources;
- developing curricula and lesson plans;
- teaching and learning; and
- evaluating and celebrating.

Multi-stakeholder group

Most programs start with a good idea—the creative power of one person. The challenge is to create a broad base of involvement. Setting up a multi-stakeholder core group is the first step to attract and build this broad base support. How do you attract the "right" people? What are the first steps? Some suggestions:

In the two-phases of a community-based learning program, the pilot phase lays the foundation and the replication phase ensures that the results of the pilot phase become widely used.

The core group should represent all major stakeholders—students, teachers, teacher trainers (higher education), school administrators, researchers, NGOs, the government, the private sector, parents, the media, and non-working community members such as students, retired people, mothers/fathers on maternity leave, and unemployed workers.

Concerns and enthusiasm

Invite people who share your enthusiasm for sustainable development and are convinced that education has an essential role in it. Start with the parents and teachers association: You might find the needed diversity here! Talk to a broad base of people in your community who should be or want to be part of the pilot project. A "stakeholder analysis" might help you to identify people.

See reference on Stakeholder Analysis, Chapter IV for further information.

Strive for a balanced group

Make sure the core group represents all major stakeholders in the community-based learning process—students, teachers, teacher trainers (higher education), school administrators, researchers, NGOs, the government, the private sector, parents, the media, non-working community members (students, retired people, mothers/fathers on maternity leave, and unemployed workers). Students and parents are the main clients of the educational community, so their involvement is of utmost importance. If parents are involved in the early stages, their input can be incorporated into a program design and they will be much more willing to support the program.

Get to know one another: your motivations, your experiences

Depending on the culture, you might want to organize both formal and informal meetings and gatherings. Informal opportunities (e.g., eating out, cooking together, taking a hike) provide a more relaxed atmosphere and thus enhance creativity and joy. Informal events take more time, but you need this to develop trust. Try to get to know one another before you develop a strategy for the next steps of the process (e.g., organizing a visioning session with broad participation of the community) during the first meeting of the core group.

Share your understanding of the basic concepts

Through exchanges and networking, people can share an understanding of the basic concepts (such as sustainability, development, community, education, etc.) and develop a peer-training program for deepening your knowledge if you deem necessary. To be able to do this, you need a higher level of trust where people are comfortable sharing what questions and doubts they have. This is the stage where the combination of online and face-to-face learning is the most efficient.

Elect the coordinating organization and person, and identify the coordinating office

By involving a group of people—the core group—as a steering committee, a structure is being created that will no longer depend upon the continuing energy of one individual. Many programs fail when that one person is not able to continue the effort. The success of the program depends on the people who run it. The coordinator and the coordinating organization should have experience in running and organizing environmental or sustainability education, but most importantly, he or she should have a true commitment.

Inventory of needs

One of the first tasks of the multi-stakeholder group is to conduct an inventory of needs by asking the following questions. The answers highlight the priority needs and concerns of your community:

- What are our current needs, locally and globally?
- Are these needs being met?
- What are the needs of our youth?
- Are we meeting our current needs without compromising the ability of future generations to meet their needs?

You will surely have the attention of both the students and adult community members if you address these issues in your curriculum. These issues bring sustainability home, to our daily life. See the "Definition of Sustainable Development" (http://iisd.ca/youth/ysbk007.htm).

Planning

Begin with the question, "How can we make our community a better place to live, so people can meet their needs both now and in 100 years?"

Then involve citizens in planning their community, including building houses, parks, and roads as well as the schools or whatever you dream for your education system! In general, planning consists of three stages, ranging from broad "visioning" to a "strategy" to a detailed "action plan." Obviously, the more people who become involved in the planning, the more people will have a stake in the success of the program.

Visioning

Visioning gives you an opportunity to express your deep desires, and step out of the constraints of the reality of "here and now." Critical questions to raise with the community are:

- What would you like your community to look like 100 years from now?
- What kind of education system would support this vision?

Visioning is the step where you need the biggest, most diverse participation from the school and community. The following are three excellent examples of the visioning process:

- Vision of Dorogd Basin, Hungary (http://www.foek.hu/korneteng/kornet2.htm);
- Vision of Burlington, Vermont, USA (http://www.iscvt.org/legplanbecoming.htm); and
- Vision of Anoka, Minnesota, USA (http://www.wri.org/enved/suscom-vision-anoka.html).

Strategy

There are two strategies for setting up your community-based learning system:

- to develop it within a larger, comprehensive, community-wide development framework (e.g., Local Agenda 21); or
- on its own as a stand alone process.

Inform participants, including the local government, about the choices and get broad-based input for selecting the strategy. It is recommended, however, to leave the final decision to the core group. For additional information, see Local Agenda 21 (http://www.iclei.org/iclei/la21.html).

In general, planning consists of three stages, ranging from broad "visioning," to a "strategy" to a detailed "action plan."

Identify and agree on the evaluation and success criteria during the design process of the action plan.

Action plan

Based on your community's needs, vision and strategy, the multi-stakeholder group can design a detailed action plan of a community-based learning project. The process follows a standard project design and management protocol. Design your evaluation system at this step, identifying and agreeing upon the evaluation and success criteria (very important!). The sections in Chapter IV entitled "Timeframe of a Typical Pilot Project for Community-Based Learning"; and "Stakeholder Analysis" are useful in developing an action plan.

Resources

You need a variety of resources for the learning program. They are determined by your goal, objectives, and specific activities. Key types of resources include:

- *Human*—both paid coordination staff and volunteers;
- *Material*—coordination office with appropriate supplies and equipment;
- *Financial*—to cover personnel, communication, travel, training, and supply costs; and
- *Informational*—access to local data and a local "Who's Who" community resource bank.

Curriculum and lesson plans

Building on the recommendations of community members, a team of classroom teachers, curriculum developers, and teacher trainers write the curriculum and the lesson plans. You may need professional educators, depending on the country, to get the approval of education authorities to teach this curriculum within the formal education system. Chapter IV provides a wide selection of education for sustainability curricula and lesson plans from Central and Eastern Europe as well as other countries.

Teaching and learning

Teaching and learning are fun and long lasting if you remember to:

- demonstrate that community-based teaching and learning is a tool to both introduce youth to community issues and sensitize adult community members to take students' ideas into consideration when major decisions are being made about the community;
- train community members in basic teaching skills; and
- encourage students to discover their learning preferences and value different teaching and learning situations.

See Learning by Doing in Poland (http://www.changemakers.net/journal/00september/owad.cfm).

Evaluating and celebrating

Evaluation is critical to dismiss concerns about quality and gain broad-based support in and outside the school. For some, bringing non-education professionals into schools to teach may be regarded as a liability. Parents may worry that students do not learn the academic knowledge they need for the university entrance exams. Respond by:

- taking these legitimate concerns seriously;
- doing annual pre- and post-activity evaluations;
- involving both students and adults in the project evaluation;
- using participatory evaluation techniques to be consistent with your participatory process in planning and teaching; and
- celebrating community-based learning!

Replication

Replication ensures that the results of the pilot project become widely used through three different directions and levels. Therefore:

1. make the pilot project rooted and institutionalized *locally;*
2. disseminate the model to *other communities; and*
3. share the process with *other countries.*

Transition from Pilot to Replication

A critical period of time is the transition from a pilot project to the replication level. The following are crucial elements of transition that lead to successful replication:

- a coordination office;
- solid training-of-trainers;
- setting up a network;
- strengthening the network;
- strategic planning; and
- innovative fundraising.

At this stage of developing the guidebook, we are offering suggestions for only the first four elements.

Coordination office

Set up a local coordination office in order to support the replication activities. It can be located in an NGO, a teacher training institute, a school, or a business. The role of a local coordination office is to support the needs of the community that is making community-based learning a tradition, a local heritage. The best way to support this process is to keep the office as local as possible, so community members can identify themselves with it. Remember: For the best results, create a full-time paid position for the local coordinator.

Training of trainers

Training of trainers is not a one-time event. It is a myth that a one-time training-of-trainers workshop creates the desired snowball effect. Training of trainers is an effective way of transferring knowledge and dissemination as long as you provide long-term support, both technical and financial, for the new trainers until they feel confident to work without mentoring. It can take years.

Whenever possible, invite trainers from the pilot community as they have experience both as trainers and as active participants. In the process of developing a training team, try to find candidates who represent nonprofit organizations, businesses, government, retired people, and students—not only teachers! Encourage your future trainers to learn team-training techniques and skills so they can provide the best support—by modeling—for setting up multi-stakeholder groups.

Setting up a network

A network of communities experimenting with community-based learning creates stability through peer support. A network can grow organically or follow a strategic process. Both ways can be equally efficient at the beginning. For long-term network development, it is important that the coordinating organization learn to be sensitive to the delicate line between coordinating and controlling.

Strengthening the network

As the network grows, two aspects require attention and development:

- *organizational strengthening*—to keep the network functional, i.e., supportive and inspiring, consider a strategic planning and development process; and

The role of a local coordination office is to support the needs of the community that is making community-based learning a tradition, a local heritage.

The best way to support this process is to keep the office as local as possible, so community members can identify themselves with it.

Teachers need special training to lead and participate in community-based learning.

- *professional development*—the growing network requires a growing complexity of professional development. Think always of both the new and the old network members.

Teachers as Community Leaders

In most countries, teachers are trained to teach only in the classroom. Teachers need special training to lead and participate in community-based learning. What would it look like?

A new system of pre-service and in-service teacher training

The new system would train teachers who are both excellent classroom teachers, and change agents, civic leaders, and facilitators between the school and the community.

A collaboration of nonprofit organizations, government, and the private sector

A collaboration of nonprofit organizations, government, and the private sector will be involved in teacher training in addition to the rigorous academic training. This will help teachers to learn organizational and community development skills. Internships with various organizations in the community would help teachers to refresh and update their skills and knowledge.

"The Curriculum Must Change"

Robert Smilovitz, a highly respected proponent of community-based education in Vermont, stated "The curriculum must change constantly to understand the world we live in." True enough! Review your community-based curriculum every year with the new students, parents, and new multi-stakeholder members.

The review process is a miniature format of the visioning and needs inventory of the original development process. This yearly renewal involves all the new participants and keeps the curriculum alive, the learning relevant to life.

Three Keys to Successful Replication

- Use a two-tiered approach. Encourage both top-down and bottom-up decisionmaking processes. Top down facilitates support and bottom up keeps creativity, innovation, and democratic processes alive.
- Encourage broad-based leadership. An empowering, politically well-versed leadership is critical to success. The leader should be aware of, and reward participants for, the decisions and responsibilities they take on.
- Promote results through the media. Encourage the media to regularly broadcast significant project events. Train participants how to speak with journalists, TV, and radio reporters. Make your reports available to the sponsors as well as to the wide public. Design and frequently update an engaging website.

Pitfalls

The common pitfalls of community-based learning are that:

- teachers feel they are being forced to make community links;
- students are not involved in planning;
- parents are used only as supporters;
- the multi-stakeholder group gets politicized;
- volunteers are not trained;
- the curriculum is not reviewed annually; and
- there is poor media coverage.

For further information, see the section entitled, "Pitfalls" in Chapter IV.

How Do You Know that Your Community-Based Learning Program Is Successful?

How do you know you are there? Here are some possible criteria for assessment:

- *Complexity:* Many schools and students of different ages can participate in community-based learning.
- *Diversity:* The diversity of the community (social, economic, ethnic, or generational) is well represented in the multi-stakeholder group as well as in teaching and supporting volunteers.
- *Longevity:* The process goes on for many years and survives many types of changes such as when student and parent populations change, teachers come and go, and political changes.
- *Replicability:* The community shares its experience with other community(ies).
- *Other:* Students academic achievements (test scores, higher education enrollment) improve, and adult continuing education enrollment increases.

II.4. EXAMPLES OF ISC'S EDUCATION PROJECTS

Information on ISC's community-based education projects in Hungary, Poland, Russia, Bulgaria, and Ukraine can be found on ISC's website: http://www.iscvt.org.

"The curriculum must change constantly to understand the world we live in."

Robert Smilovitz, proponent of community-based education in Vermont.

CHAPTER III

RE-ORIENTING EDUCATION TOWARDS SUSTAINABILITY

The first real step is to develop a community of educators and learners.

Create links between teachers and systems that make teachers' lives easier so that they want to cooperate.

What could I do differently in my teaching and learning methodology to re-orient education towards sustainability? Why do we want to teach about sustainability? Who do we want to teach?

III.1. MANAGEMENT

What could I do differently in my teaching and learning methodology to re-orient education towards sustainability?

Before you do anything different in the classroom, start making changes in the staff room; the rest will follow. The first real step is to develop a community of educators and learners. Create links between teachers and systems that make teachers' lives easier so that they want to cooperate. Moreover, create links between school management and teaching staff. Develop each teacher's management skills and encourage teachers to become community leaders. Otherwise, the answers to the following questions will earn them a high grade on a test but will not make the transition to reality.

Why do we want to teach about sustainability?

To help young people to:

- develop a vision of the future and a belief in humanity;
- motivate people to address environment, economic, and social concerns;
- provide a holistic approach to education;
- make a real connection between the community and education;
- protect our own environment and the community;
- increase knowledge within our organizations, community, and country;
- influence different levels of government and society through ministries and departments to leverage more support for sustainable development; and
- foster action that brings change.

Who do we want to teach?

We want to teach:

- ourselves;
- our neighbors and students;
- teachers, principals, school administrators;
- local governments, mayors, and clerks;
- government ministers and politicians;
- parents and families;
- businesses, farmers, and other professionals;
- nongovernmental and nonprofit organizations;
- our colleagues;
- priests and ministers; and
- our own children.

Education for sustainability presents the model for good education in the 21st century.

III.2. CAPACITY BUILDING

What are the absolute essentials that I need to know and be able to do? What are the values of education for sustainability? How different are these values from those of the current education establishment? How can we provide community members—both youth and adults—with the knowledge, skills, and values and attitudes that empower them to act in a socially responsible, environmentally sound, and economically viable manner?

Essential Learning for Community-Based Education

How do you know that what you are doing in your classroom is community-based education, or environmental education, or human rights education, or education for sustainability? Could someone tell the difference if he or she just sat in your class for 45 minutes or would he or she need to devote a whole year or more to discover the answer? What is the difference between education for sustainability and other notions of good education?

This section explores some of the critical knowledge, skills, and values/attitudes necessary for community-based education for sustainability as identified by a team of Polish and Hungarian educators.

Below are three lists of characteristics—knowledge, skills, and values and attitudes—that will provide you with a sense of what makes community-based education for sustainability a special approach.

Education for sustainability presents the model for good education in the 21st century. Agreeing upon the shortest possible lists of necessary knowledge, skills, and values is a challenging exercise. Make sure you leave plenty of time for it!

This list was developed through numerous lengthy discussions in the course of the Partners in Education project. Further, these characteristics form the basis of all the curricula, lesson plans, and activities featured in Chapter IV.

Knowledge

Education for sustainability is reflected in these topics:

- sustainable development versus environmental protection;
- self-knowledge and awareness of what forms our behavior and habits;
- an understanding of complex environmental, economic, social, and political systems;
- the interconnectedness of systems and their subsystems, e.g., the relationships between human populations, nations, communities, schools, families, and individuals;
- spatial awareness on local, regional, and global levels;
- temporal awareness of the past, present, and future;
- community connections;
- conscious consumerism;
- legal regulation and the importance of enforcement at local, national and international levels;
- good methods of education; and
- assessment of the impact of lifestyles and alternatives to unsustainable lifestyles.

Skills

The following skills reflect those important in community-based education:

- critical thinking;
- skills for taking individual and collection action, including planning, problem solving, change management, effective communication, cooperation between groups and individuals, decisionmaking, monitoring, evaluation, and dissemination strategies;
- systems thinking;
- consideration of issues from multiple perspectives, including regional, ethnic, religious, cultural perspectives, and intergenerational points of view;
- knowledge management, including the ability to select and use relevant information, create new or alternative innovations, and utilize information technology; and
- conflict management, including negotiation, conflict prevention, and consensus building.

Values/Attitudes

These characteristics are important aspects for developing education for sustainability:

- increase the awareness of social and environmental values;
- responsibility for individual and common actions;
- constructive attitudes and a win-win approach to problem solving;
- oneness, holism;
- cooperation versus competition;
- respect for diversity, for example, of values and cultures;
- thinking in and understanding the constantly changing nature of development;
- questioning the status quo; and
- willingness to act.

Methodology

Having reviewed the essential knowledge, skills, and values/attitudes necessary for community-based education for sustainability, we turn to the next question. What are the most appropriate actions, methods, and approaches to convey these characteristics?

Following this introduction is a list of recommendations developed by Polish and Hungarian educators. Ultimately, you'll ask how to apply these methods, and the sample curricula and lesson plans in Chapter IV will provide you with some great examples.

Methods and Approaches: Conveying Community-Based Education for Sustainability

- use up-to-date scientific research, approaches, and theories from environmental, economic, social, and political fields;
- employ community-based activities;
- use relevant, real-life or priority local issues and identify local people as resources;
- address complex issues that don't have simple solutions;
- develop hands-on applications;
- promote interdisciplinary or "cross-curricular" approaches;
- inspire inquiry;
- encourage peer-learning and teaching;
- plan for active and cooperative learning;
- foster critical thinking by addressing learners as decisionmakers;
- include diverse learning opportunities by considering different learning styles, multiple intelligences, other brain-based learning methods;

What are the most appropriate actions, methods, and approaches to convey knowledge, skills, and values/attitudes?

- provide opportunities for learners to immediately apply new knowledge and skills and elicit peer-feedback; and
- blend face-to-face interaction with technology-based methods.

TRAINING WORKSHOPS

KNOWLEDGE-BASED TOPICS AND THEMES

- **Introduction to the community-based approach to education for sustainability;**
- **Sustainable development;**
- **Globalization;**
- **Sustainability indicators and the ecological footprint;**
- **Sustainable natural resource use;**
- **Sustainable economics; and**
- **Sustainable communities.**

SKILL-BASED TOPICS AND THEMES

- **Scenario planning;**
- **Multi-cultural understanding and multi-perspective approaches;**
- **Systems thinking;**
- **Effective communication;**
- **Conflict prevention and resolution;**
- **Lifelong learning;**
- **Decisionmaking;**
- **Creative problem solving;**
- **Teamwork;**
- **Planning; and**
- **Leadership.**

ATTITUDE-BASED TOPICS AND THEMES

- **Responsible action; and**
- **Willingness to act.**

Capacity-Building Tools

There are endless ways of building capacity. ISC has successfully used three methods over the last decade: training workshops, study tours, and small-grant programs.

Education for sustainability also promotes additional tools such as community service and internships for both teachers and students, and distance learning. For higher motivation and deeper learning, blend the use of online courses, media broadcasting, educational videos, and multi-media CD-ROM technology with more traditional face-to-face capacity-building approaches.

Popular capacity building tools:

- Training workshops
- Study tours
- Small grants
- Distance learning
- Internships
- Community service

Here, this guidebook provides you with recommendations for training workshop design. In a later stage of the guidebook development, additional capacity-building tools and recommendations will be reviewed.

Training Workshops

Three-day training workshops composed of small units have become the most popular capacity-building tools among ISC's methods of educational project development. These workshops, including field trips, case studies, and a plethora of interactive learning opportunities, may take a few minutes or a whole day and be held indoors or outdoors.

The emphasis is on a short, intensive transfer of knowledge and skills. Other capacity-building tools, like internships and community service, could then support the learner in applying their new skills in real-life situations and in a real timeframe.

The typical audience of training workshops is predominantly adult community members with the occasional student. With a more balanced representation of youth and adults within a workshop, however, the event becomes more appropriate to the learning process and the challenges that the community faces.

The list below gives you an idea of topics and themes you might want to include in workshop designs when you are preparing community members for community-based education for sustainability.

These topics can be addressed in just a few hours over a few days depending on your needs; moreover, they are artificially grouped in three categories—knowledge, skills, and values/attitudes—to guide you towards a more holistic training design.

Knowledge-Based Topics and Themes

- introduction to the community-based approach to education for sustainability;
- sustainable development;
- globalization;
- sustainability indicators and the ecological footprint;
- sustainable natural resource use;
- sustainable economics; and
- sustainable communities.

Skill-Based Topics and Themes

- future scenario planning;
- multi-cultural understanding and multi-perspective approaches;
- systems thinking;
- effective communication;
- conflict prevention and resolution;
- lifelong learning;
- decisionmaking;
- creative problem solving;
- teamwork;
- planning; and
- leadership.

Values/Attitudes-Based Topics and Themes

- responsible action; and
- willingness to act.

Training Topics and Themes

To explore how you might create a training workshop around a topic or theme, let's take a closer look at the recommendations listed above.

Next, we build on each topic or theme by dividing it into two sections. The first section provides you with essential areas of knowledge, skills, and values/attitudes to consider when designing a particular workshop. The second section lists suggested activities for that same workshop.

Each activity has either been developed or selected courtesy of the Partners in Education project or adapted from ISC training manuals. For your reference, all suggested activities are compiled in Chapter IV of this guidebook. More activities will be added as the guidebook is revised.

All suggested activities are compiled in Chapter IV of this guidebook.

You are also welcome to contact ISC for training manuals and additional information.

TRAINING WORKSHOPS

KNOWLEDGE-BASED TOPICS AND THEMES

1. INTRODUCTION TO THE COMMUNITY-BASED APPROACH TO EDUCATION FOR SUSTAINABILITY

Essential areas of knowledge, skills, and values:

- sustainable development versus ecology
- self-awareness of what forms our behavior and habits
- community connections
- responsibility for actions
- respect for diversity
- learning and teaching in community-based education

Recommended activities for this workshop:

- Community-based and Internet-based approaches to education
- Education for sustainability (EFS): Why?
- Our needs and wants
- Sustainable meal
- Sustainability: Introduction
- Stone soup
- Teams and words
- Traditional Cserkútians and the new-comers
- World in five paradigms

2. SUSTAINABLE DEVELOPMENT

Essential areas of knowledge, skills, and values:

- sustainable development versus ecology
- understanding of complex environmental, economic and social systems
- interconnectedness of systems
- spatial awareness on local, regional, and global levels
- temporal awareness of the past, present, and future
- conscious consumerism
- systems thinking
- multiple perspectives
- responsibility for actions
- cooperation versus competition

Recommended activities for this workshop:

- Education for sustainability (EFS): Why?
- Landfill: Do we need a landfill like this?
- Our needs and wants
- Organic farming versus large scale agriculture
- Sustainability: Introduction

3. GLOBALIZATION

Essential areas of knowledge, skills, and values:

- self-awareness of what forms our behavior and habits
- understanding of complex environmental, economic, and social systems
- interconnectedness of systems and their subsystems
- spatial awareness on local, regional, and global levels
- conscious consumerism
- systems thinking
- responsibility for actions
- cooperation versus competition
- respect for diversity

Recommended activities for this workshop:

- Community-based and internet-based approaches to education
- Dairy products: Exploration

4. SUSTAINABILITY INDICATORS AND THE ECOLOGICAL FOOTPRINT

Essential areas of knowledge, skills, and values:

- understanding of complex environmental, economic, and social systems
- interconnectedness of systems and their subsystems
- spatial awareness on local, regional, and global levels
- temporal awareness of the past, present, and future
- community connections
- systems thinking
- multiple perspectives
- knowledge management

Recommended activities for this workshop:

- Community postcard
- Indicators of a sustainable community
- Indicators of sustainability: Exploration
- Indicators of sustainability: Let's develop our own indicators!
- Joy and sorrow map
- Sustainable meal
- Questionnaire: How sustainable is our community?

5. SUSTAINABLE NATURAL RESOURCE USE

Essential areas of knowledge, skills, and values:

- understanding of complex environmental, economic, and social systems
- interconnectedness of systems
- spatial awareness on local, regional, and global levels
- temporal awareness of the past, present, and future
- multiple perspectives
- cooperation versus competition

Recommended activities for this workshop:

- Landfill: Do we need a landfill like this?
- Meadow and lawn: What is the difference?
- Our needs and wants
- Time management
- Water resources: How to use them?

6. SUSTAINABLE ECONOMICS

Essential areas of knowledge, skills, and values:

- self-awareness of what forms our behavior and habits
- understanding of complex systems: environmental, economic, and social
- interconnectedness of systems
- spatial awareness on local, regional, and global levels
- community connections
- conscious consumerism
- multiple perspectives
- responsibility for actions

Recommended activities for this workshop:

- BSE
- Dairy products: Exploration
- Environmentally friendly shopping
- Farm animals (traditional and high breed)
- Local & global economy
- Organic farming versus large scale agriculture
- Sustainable meal
- Water resources: How to use them?

SKILL-BASED TOPICS AND THEMES

1. SCENARIO PLANNING

Essential areas of knowledge, skills, and values:

- understanding of complex environmental, economic and social systems
- interconnectedness of systems and their subsystems
- interrelation of past-present-future usage and different indicators
- temporal awareness of the past, present, and future
- systems thinking
- multiple perspectives

Recommended activities for this workshop:

- Stone soup
- Parabole about the sower
- World in five paradigms

7. SUSTAINABLE COMMUNITY

Essential areas of knowledge, skills, and values:

- self-awareness of what forms our behavior and habits
- interconnectedness of systems and their subsystems
- spatial awareness on local, regional, and global levels
- community connections
- systems thinking
- multiple perspectives
- responsibility for actions
- constructive attitudes to problems
- oneness and holism
- cooperation versus competition
- respect for diversity

Recommended activities for this workshop:

- Community postcard
- Indicators of a sustainable community
- How to design a sustainable community
- Joy and sorrow map
- Looking at the community through sustainable eyeglasses
- Questionnaire: How sustainable is our community?
- School-community partnership: Sustainable Transportation Projects
- Sustainable school: What does it look like?
- Stone soup
- Traditional Cserkútians and the newcomers

2. MULTI-CULTURAL UNDERSTANDING AND THE MULTI-PERSPECTIVE APPROACH

Essential areas of knowledge, skills, and values:

- self-awareness of what forms our behavior and habits
- interconnectedness of systems and their subsystems
- multiple perspectives
- cooperation versus competition
- respect for diversity

Recommended activities for this workshop:

- Joy and sorrow map
- Questionnaire: How sustainable is our community?
- Traditional Cserkútians and the new-comers
- World in five paradigms

3. SYSTEMS THINKING

Essential areas of knowledge, skills, and values:

- understanding of complex systems: environmental, economic, and social
- spatial awareness on local, regional, and global levels
- temporal awareness of the past, present, and future
- systems thinking
- respect for diversity

Recommended activities for this workshop:

- Gaia theory: Systems thinking
- Indicators of a sustainable community
- World in five paradigms

4. EFFECTIVE COMMUNICATION

Essential areas of knowledge, skills, and values:

- self-awareness of what forms our behavior and habits
- multiple perspectives
- negotiations and conflict prevention
- constructive attitudes to problems
- cooperation versus competition
- respect for diversity

Recommended activities for this workshop:

- Do we really know each other?
- Orange
- Stone soup

5. CONFLICT PREVENTION AND RESOLUTION

Essential areas of knowledge, skills, and values:

- self-awareness of what forms our behavior and habits
- skills for taking action
- systems thinking
- knowledge management
- negotiations and conflict prevention
- responsibility for actions
- oneness and holism
- cooperation versus competition
- respect for diversity

Recommended activities for this workshop:

- How to achieve consensus?
- Stone soup
- Traditional Cserkútians and the new-comers

6. LIFELONG LEARNING

Essential areas of knowledge, skills, and values:

- temporal awareness of the past, present, and future
- community connections
- skills for taking action
- knowledge management
- respect for diversity

Recommended activities for this workshop:

- Community-based and Internet-based approaches to education
- Do we really know each other?
- Time management
- Orange

7. DECISIONMAKING

Essential areas of knowledge, skills, and values:

- temporal awareness of the past, present, and future
- self-awareness of what forms our behavior and habits
- skills for taking action
- multiple perspectives
- negotiations and conflict prevention
- responsibility for actions
- constructive attitudes to problems

Recommended activities for this workshop:

- Dairy products: Exploration
- Deciding what is the most important for us
- Environmentally friendly shopping
- How to achieve consensus?
- How to design a sustainable community
- Indicators of a sustainable community
- Our needs and wants

8. CREATIVE PROBLEM SOLVING

Essential areas of knowledge, skills, and values:

- skills for taking action
- systems thinking
- multiple perspectives
- knowledge management
- constructive attitudes toward problems
- cooperation versus competition

Recommended activities for this workshop:

- Landfill: Do we need a landfill like this?
- Sustainable meal
- Stone soup
- Traditional Cserkútians and the new-comers

9. WORKING IN A TEAM

Essential areas of knowledge, skills, and values:

- community connections
- skills for taking action
- multiple perspectives
- negotiation and conflict prevention
- responsibility for actions
- constructive attitudes to problems
- oneness and holism
- cooperation versus competition
- respect for diversity

Recommended activities for this workshop:

- Do we really know each other?
- How to achieve consensus?
- Sustainable school: What does it look like?
- Teams and words

TRAINING WORKSHOPS

10. PLANNING

Essential areas of knowledge, skills, and values:

- temporal awareness of the past, present, and future
- community connections
- multiple perspectives
- knowledge management
- responsibility for actions
- constructive attitudes to problems

Recommended activities for this workshop:

- How to design a sustainable community
- Landfill: Do we need a landfill like this?
- School-community partnership: Sustainable transportation projects
- Sustainable school: What does it look like?
- Teams and words
- Traditional Cserkútians and the newcomers
- Time management

11. LEADERSHIP

Essential areas of knowledge, skills, and values:

- skills for taking action
- systems thinking
- multiple perspectives
- knowledge management
- negotiation and conflict prevention
- responsibility for actions
- cooperation versus competition
- respect for diversity

Recommended activities for this workshop:

- Landfill: Do we need a landfill like this?
- Traditional Cserkútians and the newcomers
- Sustainable school: What does it look like?
- World in five paradigms

VALUES/ATTITUDES-BASED TOPICS AND THEMES

1. TAKING RESPONSIBLE ACTION

Essential areas of knowledge, skills, and values:

- spatial awareness at local, regional, and global levels
- temporal awareness of the past, present, and future
- skills for taking action
- conscious consumerism
- responsibility for actions
- constructive attitudes to problems
- respect for diversity

Recommended activities for this workshop:

- How to design a sustainable community
- Landfill: Do we need a landfill like this?
- Sustainable school: What does it look like?
- Traditional Cserkútians and the new-comers
- Water resources: How to use them?

2. WILLINGNESS TO ACT

Essential areas of knowledge, skills, and values:

- temporal awareness of the past, present, and future
- skills for taking action
- systems thinking
- multiple perspective
- responsibility for actions
- cooperation versus competition

Recommended activities for this workshop:

- Community postcard
- Sustainable school: What does it look like?
- Stone soup

While the plans, tools, and skills are essential to address local development issues, they need to be used and constantly updated to make a difference and reach a higher level of awareness.

III.3. RESULTS OF CAPACITY BUILDING

The immediate results of the wide range of capacity-building workshops and other activities are plans developed by local community members to teach and learn about sustainable development within the bio-geographical, political, and cultural realities of the local community. Moreover, while these plans, tools, and skills are essential to address local development issues, they need to be used and constantly updated to make a difference and reach a higher level of awareness.

In the following sections you can review sample plans for learning initiated at one of two local entry points—in schools or in the community. Regardless which entry point is taken, most plans and activities include both school-based activities and community involvement.

Schools

Usually, in order to teach anything at school, you need to develop a curriculum and have it approved by national or local education authorities. You then need to create instructional plans for each unit or lesson to implement the curriculum.

In Central and Eastern Europe you might find either a very prescriptive national curriculum in place, or a fairly flexible framework of standards where teachers are allowed more freedom regarding what and how they teach. In either case, the local curriculum has to match the country's educational requirements at national and local levels.

Curricula

Unlike the debate about whether environmental education should be a separate subject or a cross-curricular theme, most people agree that teaching about and for sustainable development should take an interdisciplinary, "cross-curricular," and preferably whole-school approach.

The three sample curricula in Chapter IV demonstrate areas of the Polish and Hungarian educational system where sustainable development could be addressed. The three one-semester curricula cover the whole range of public education and are divided into the following age groups:

- Kindergarten (5-6 year old)
  Pre-school
- Grade 4 (10 year old)
  Upper elementary
- Grade 4-5-6 (10-11-12 year old)
  Upper elementary

Lesson Plans/Teaching Units

This section refers you to an assortment of lesson plans and teaching units that have been selected by Partners in Education participants. Each plan or unit models valuable interactive, issue- and community-based, inquiry-driven, interdisciplinary sustainable development teaching and learning methods for elementary, middle and/or high school students. Lesson plans and teaching units are either featured in this book or based on the Internet.

Community

Making community-based learning for sustainable development a reality and engaging skeptical people can be challenging. Following are six successful programs initiated by Partners in Education project members in Poland and Hungary:

- Community-based Teacher Training, Kecskemet, Hungary
- Eco-Market, Plock, Poland
- Earth Day, Slubice, Poland
- Lifelong Learning Without School, Cserkut, Hungary
- Schools for Local Sustainability, Hungary
- Youth Forum on Environmental Policy, Poland

Finally, to aid you in the planning process, the next chapter provides you with a wide selection of original, adapted, and translated teaching materials that provide additional value in their relevance to Central and Eastern Europe.

Most people agree that teaching about and for sustainable development should take an interdisciplinary "cross-curricular," and preferably "whole-school" approach.

PART 2

IV. RESOURCES

Are you ready for action? Do you feel like starting a community-based learning program or teaching & learning together about sustainability? You are at the right chapter!

IV.1. Handouts

IV.2. Curricula

IV.3. Lesson plans

IV.4. Case studies

IV.1. HANDOUTS FOR PART 1

This section features the referred handouts for Part 1 of this Guidebook. They will help you better understand ISC's community-based education project model and implementation.

1. **Assumptions**
2. **ISC's Community-based Education for Sustainability Model**
3. **Timeframe of a typical pilot project for community-based learning**
4. **Description of Project Components**
5. **Stakeholder Analysis**
6. **Education from a System Thinking Perspective**
7. **Definitions of community-based education & learning**
8. **Comparison of conventional and community-based learning**
9. **Roles and responsibilities in community-based learning**
10. **Common Pitfalls of Community-based Education**

ASSUMPTIONS

ISC's Community-based Education project model is based on the following key assumptions about project management, community involvement, replication, and long-term impact.

PROJECT FOUNDATION / PROJECT MANAGEMENT

- Implementation of an ISC community-based education project takes more than two years. (The project director visits partners 8 -10 times during the project period.) Plan for three to five year-long education projects. Objectives and activities typical to community-based education projects require a long implementation time. For the biggest impact projects are scheduled around education related to policy changes (e.g. Environmental Education Act) or reforms when there is an opportunity to integrate new national environmental education or sustainability standards in order to institutionalize project results.
- A competitive selection of demonstration communities contributes to commitment and leverages local support.
- Sub-grants provide essential resources for the successful management of the demonstration projects: salary of project coordinators and other project participants (teachers, translator, accountant); computer, printer, modem and e-mail provision; and office supplies.
- It is important to offer more than three training workshops, continue organizing study tours (both US and regional) and keep the small grants assistance scheme.
- A high level of ISC involvement at the start of the project can gradually be reduced as project partners develop the capacity and resources to independently implement the project. Increase the responsibility of national partners in securing project support from national level stakeholders especially with ministry officials.
- Engage all relevant ministries, not only those dealing with education and environment.
- Make sure there is regular media coverage throughout the whole project, especially featuring project results.
- Working closely with a national partner organization and the partners of the two local demonstration projects will result in project sustainability in the demonstration communities after ISC ends its direct participation.

COMMUNITY INVOLVEMENT IN MAIN PROJECT ACTIVITIES

- Do not take citizens' interest and activity for granted. Empowerment of local citizens and organizations who are traditionally not involved in education should be a distinct, very conscious, effective building block in the project foundation, especially when resources are not available to combine the education activities with wider community efforts toward sustainability (e.g. community action program or Local Agenda 21).
- A volunteer multi-stakeholder advisory group makes sure various interests of different community groups are represented in a transparent and democratic decisionmaking process in both the design and implementation phase of the local community-based environmental education curriculum.
- Bringing teachers, teacher trainers and other stakeholders (parents, students, local NGOs, government officials, representatives of utility companies, national park officers, etc.) together to collaboratively address local environmental issues will lead to
  - lasting professional networks,
  - on-going, dynamic curriculum development and implementation process that reflects changes in community knowledge and priorities,
  - community-wide support for schools,
  - improved quality of education, and
  - increased civic participation in community issues.

REPLICATION

- Training selected members of the original demonstration communities in interactive teaching, community based curriculum development, project design and management, and leadership will not lead to partner-led replication in other communities independent of ISC unless funding is secured for the transition from a demonstration project to widespread replication. It is important to include training of trainers workshops in this transition.
- Methodical implementation of the community-based environmental education model together with the project partners will lead to independent replication of the entire model (from jointly selecting a priority environmental issue for the curriculum to teaching lessons) in other communities.
- Involving national-level ministries and teacher training colleges / institutes in the process will lead to continued support and facilitate replication beyond the demonstration communities.
- Providing joint training opportunities and study tours to other ISC partners in the region (Central and Eastern Europe) and to the U.S. for key project leaders will lead to
    - strengthened national and international networks,
    - broadened and deepened management and technical skills of former partners who participate in training activities and organize study tours, and
    - increased success of project replication.
- Providing small grants to the demonstration communities to support local environmental education initiatives develops project management skills that contribute to the replication of the project and increased participation of youth in community activities.

LONG TERM IMPACT

- The ISC community-based education model increases student involvement in the community, which leads to transformation of students' values about sustainable development and greater civic participation in all aspects of community life.
- The ISC community-based education model helps develop the essential community components for sustainability: social development, governance, economy, and environment.

ISC'S COMMUNITY-BASED EDUCATION FOR SUSTAINABILITY MODEL

Vision

Communities are more capable of addressing environmental, economic and social equity issues

Long term goals

Students become leaders who support sustainable development	Students become responsible citizens who are concerned abut sustainability	Students' understanding and appreciation of community issues grow

Sustained activities

Classroom learning is linked and applied to community- and global issues	Methods of community-based learning is integrated in teacher training (pre-, and in-service)	Community-based curriculum is regularly updated	Skills and knowledge transferred to other communities

----------the end of the pilot / demonstration project----------

Results

National and international network of community-based educators	Interested community members, classroom teachers and teacher trainers are able to design and teach a community-based education curriculum for sustainable development		Former ISC partners' capacities are broadened and strengthened
Project leaders apply their international experience to local context	Locally relevant curriculum, approved by relevant authorities, piloted in the demonstration communities.	High quality education materials in local language	Increased youth involvement in community projects

Capacity building
Professional development activities

Study tours	**Training Workshops**	**Small Grant Program**
Internships	**Distance Learning**	**Community service**

Results of project foundation and on-going management

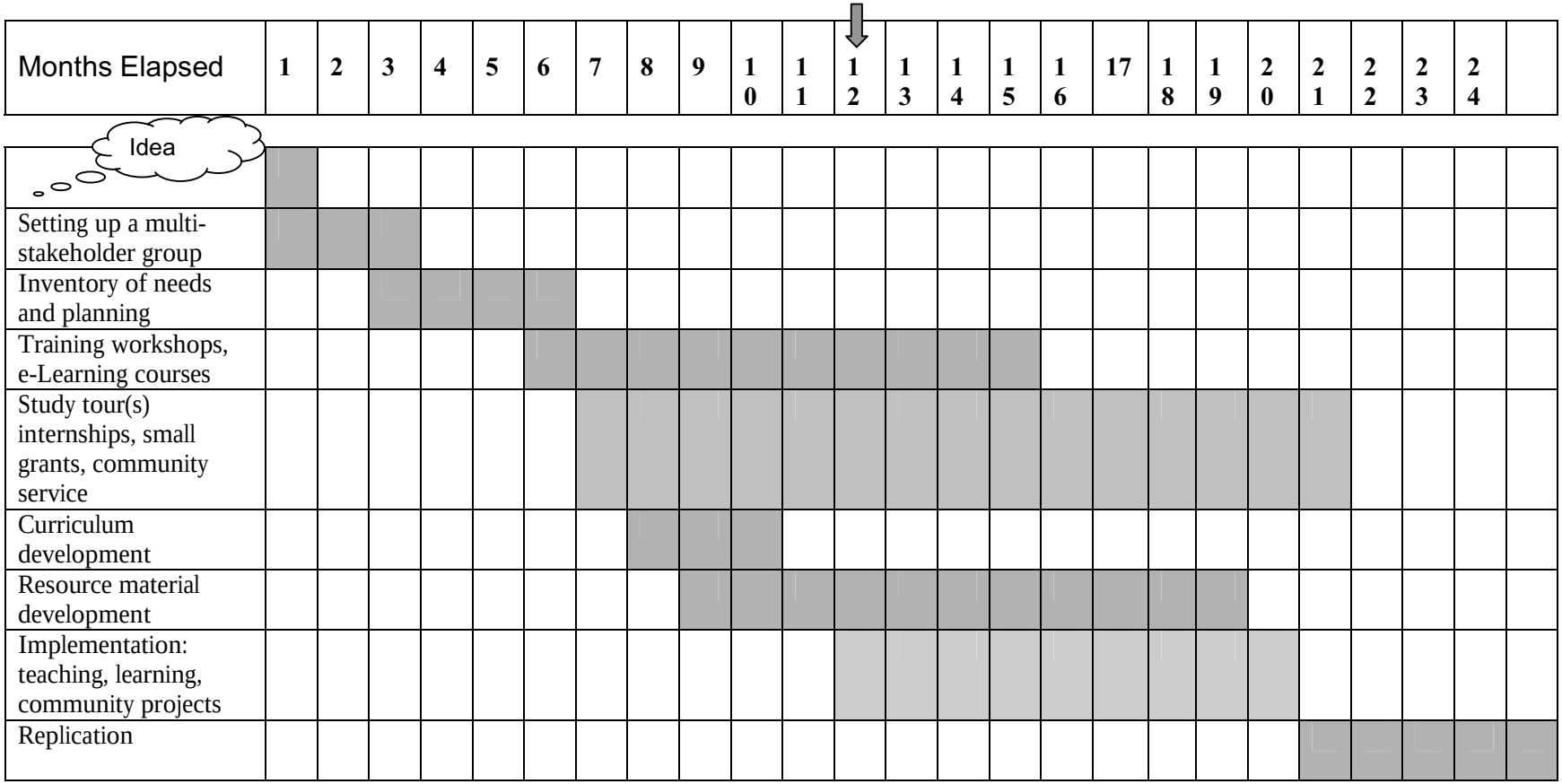
Active multi-stakeholder advisory group	Support from local teacher pre-, in-service training colleges (professional support)	Support from relevant ministries and local authorities (political, financial support)	Regular media coverage
Project participants are selected	Support from ISC's former partners (professional support)	National and local partners coordinate the project;	People in the community and outside know about the project

Project foundation and on-going management activities

Multi-stakeholder group advisory group from the private, governmental and non-profit sector	**Teacher training Institute** Pre-and in-service teacher training colleges / institutes	**National / local government** Ministry of education, environment, labor, trade, and local authorities	**Media**

Needs assessment	Selection of national partner	Selection of demonstration communities, local coordinators

TIMEFRAME OF A TYPICAL PILOT PROJECT FOR COMMUNITY-BASED LEARNING



DESCRIPTION OF PROJECT COMPONENTS

through the example of ISC's Community-based Environmental Education Project in Ukraine (1997-1999)

The project consisted of two phases:
(I) Introducing the Project
(II) Conducting the Demonstration Project

PHASE I: INTRODUCING THE PROJECT

Selection of national partner organization

ISC surveyed the leading environmental education organizations and individuals to determine the best candidate for the partner organization and project coordinator at the national level. The NGO Child and Environment in Kyiv was selected to help design and implement all phases of the project. The partner organization provided the demonstration communities with technical assistance; served as a liaison among ISC, the two local demonstration communities, and educational and governmental officials; and disseminated information about the project nationally.

Selection of demonstration communities

The two demonstration communities – Khmelnitsky and Ivano-Frankivsk – were identified using a competitive selection process. Selection criteria included broad-based commitment from local government authorities, a locally based teachers' training college, NGOs, and educators; interest in environmental education, community-based approaches, and/or environmental protection; interest and/or experience in international programs or partnerships; and a level of commitment to serve as a demonstration site (e.g., hosting international guests, sharing information with other communities, participating in developing plans for replication).

PHASE II: CONDUCTING THE DEMONSTRATION PROJECT

Start-up activities included identifying local partner organizations, and with their lead setting up the multi-stakeholder community groups in both demonstration communities.

Training workshops

Three workshops introduced participants to the (1) community-based approach to environmental education, (2) project design and management, and (3) learning and leadership styles. Workshop themes were geared toward priorities identified collectively by project participants.

Workshop participants were selected by the community advisory group: 25 members of the demonstration community were drawn from different sectors of society: education (classroom teachers (grade 6-12), in-service teacher trainers (methodologist in biology, chemistry, geography, art, psychology), pre-service teacher trainers, informal / after school education institutions (youth-, nature center etc), students (high school, university); parents, national park and nature conservation authority, various NGO members, local and regional government representatives, and local and regional government agencies.

User-friendly training manuals were developed by U.S. trainers in English and translated with necessary adaptation for the Ukrainian audience. The training workshops were designed and conducted by using creative visuals suitable for a mixed audience that relied on bilingual interpretation. Participants received guidance on adaptation of environmental education materials.

Curriculum development

The training workshops guided participants through a step-by-step process for developing a community-based environmental education curriculum. Between workshops, the multi-stakeholder community group worked with interested community members to develop a locally relevant one semester long community-based curriculum. Educators adapted new methods learned at the workshops for their

selected grade level, wrote and field-tested their own environmental education lessons, practiced team-teaching interdisciplinary lessons with colleagues, and recruited other teachers and community members interested in environmental education.

Study tours

Ukrainian project leaders participated in two study tours. They visited former ISC partners in the region (Poland and Hungary) in November 1998 and U.S. environmental education organizations in May 1999.

***Poland and Hungary*:** Nine Ukrainian project participants visited ISC's former partners in Poland and Hungary. The purpose of the 10-day study tour was to provide opportunities for key leaders of the Community-based Environmental Education Project in Ukraine to exchange ideas with Polish and Hungarian environmental educators in order to support their curriculum development, implementation and replication process in Ukraine. The timing of the trip was scheduled in a way that the Ukrainian participants could incorporate their experiences of the study tour in their curriculum development.

***United States*:** Three Ukrainian and four Polish partners visited the United States to explore some of the most innovative models of community-based education practices. The 12-day tour provided ISC's Ukrainian partners with new models to assist them with curriculum development and replication of their project activities. ISC included its Polish partners to further develop their leadership skills and deepen the partnership of the Polish and Ukrainian environmental education communities. The study tour to the USA was the final and significant event of the 24-month project in Ukraine.

Small grant program

The two demonstration communities received funding to administer small grants (ranging from $200 - $1,000 per project) to support community members' creative and low-cost initiatives to engage young people in sustainable community development.

STAKEHOLDER ANALYSIS

Stakeholder analysis is an interactive activity that can be used both for planning and evaluation.

OBJECTIVES

Stakeholder analysis reveals the roles of different stakeholder groups and the perceptions people have about them. It clarifies

- which institutions are the most important in the implementation of the project,
- which institutions have the confidence, trust of most community members, and
- who represents these organizations in the project.

MATERIALS

- 8-15 pieces of paper of three-four different sizes. Use two colors: one for groups within the community, and another for external organizations.
- One large sheet of paper (flipchart), or a large area where the paper pieces can be mounted.
- Markers, scissors.

PROCESS

- Form small groups of three-four.
- Each group develops criteria for stakeholders.
- Each group lists and ranks the stakeholder organizations according to these criteria, and writes the name of the organizations on the pieces of paper. The size of paper should correspond with the perceived importance of the organization in implementing the project.
- Each group arranges the paper pieces in a way that shows which organizations are connected and to what degree.
- Invite discussion about the role of different organizations in the project. Potential questions:
  - What is the relationship between organization X and organization Y within the community?
  - What relationship does organization X have with external organizations? How does organization X perceive these external organizations?
  - What actions have external and internal organizations taken together?
  - How do project participants perceive the services brought by these external groups?
  - Who is involved in each organization?
  - Who does what? Who takes responsibilities for what?
  - Who leads the group and makes decisions?
  - Is the organization's decisionmaking process transparent?
  - How are the leaders chosen?
  - Have the leaders or members had any management training? If yes, was it useful?
  - How are ideas shared within organization X?
  - What are the future plans of these organizations?
  - How are these plans connected with the community-based learning program?

- Bring the small groups together to discuss similarities and differences between their stakeholder diagrams:
  - How do the diagrams differ?
  - Why?

Source: Adapted from Mark Protti, Consultant, New Hampshire, USA

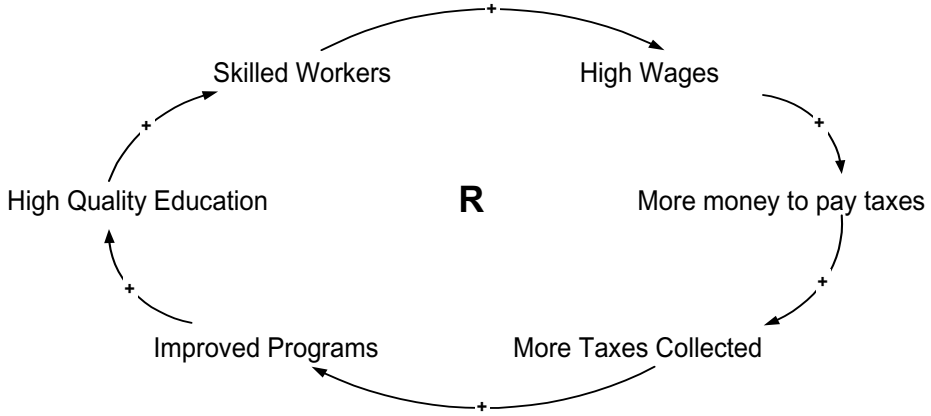
EDUCATION FROM A SYSTEM THINKING PERSPECTIVE

EDUCATION AS A REINFORCING CYCLE

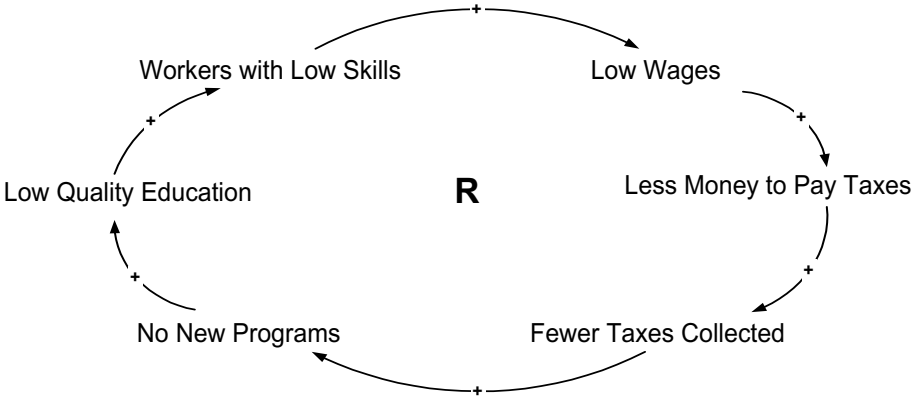
Each of the flows within a community – the flow of social well-being, the flow of empowerment, of money and labor, of material - can exhibit characteristics of a reinforcing cycle. Take for example, the cycle of social well-being. The educational system in a community plays an important role in contributing to this cycle, so let's look at this loop that can work either in a positive direction, or in a negative direction with respect to the educational level in a community.

Education pays

In the first example, a community has a good educational system. Teachers are paid well, so high quality teachers are attracted to the schools. They are not afraid to innovate and bring in new programs. The community is supportive of the educational system, because they perceive the real benefits they have derived from it, namely good jobs that require high skill levels. Because they are able to get good jobs, their income is higher, which makes it easier for them to pay the taxes that are required to maintain a high quality educational system. Every part of the system reinforces the other parts:



If the opposite is true, then the reinforcing cycle works in the other direction:



Source: Gwendolyn Hallsmith, Former Community Action Director, ISC, 2000

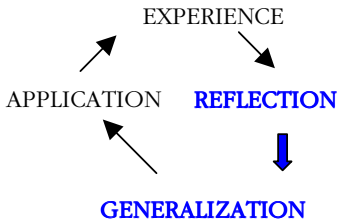
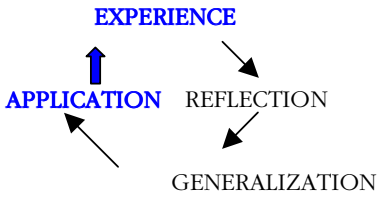
DEFINITIONS OF COMMUNITY-BASED EDUCATION & LEARNING

by ISC's education partners

Definition	Country
Community-based education is the education process connected and controlled by the local community on the base of their needs, conditions, and development strategy. It is shaped by the local community on 3 levels: • planning (curriculum/development, programs etc.) • implementation (teaching/learning process) • evaluation (or quality-control system)	Hungary
To see local issues as bases, and local people as resources of education/learning.	Hungary
By community we usually mean the local "society" (or a part of it) sharing economic and ecological resources, and problems. However, members of the community are rarely invited to participate in decisionmaking. All education/learning, which is inductive (starting from empirical details of the locality, using it as a case, an example or target) is community-based education. Deductive (global) education can arrive at the same level with greater difficulties, because of human psyche. Community-based education should be addressed to all generations and sectors, respectively.	Hungary
We understand community-based education / learning as a learning approach that focuses on bringing stakeholders together to identify the local community issues and develop appropriate educational programs that would increase knowledge, awareness and input of the people in the community addressing their own needs.	Macedonia
Community-based education is an education that happens using not only one subject (school) but also other ones: parents, local government, NGO, and business representatives. This education is for the community, about the community, and it ranges over the community.	Poland
Community-based environmental education is an approach to learning that focuses on addressing environmental problems by facilitating a process where students, teachers, and community members actively participate in identifying local problems, collecting and analyzing information, defining the problem from a variety of perspectives, identifying alternative solutions, developing an action plan, and evaluating the outcome of the process.	Poland
Community-based education is a form of education performed in the community and with participation of members of this community. Community-based education unites all members of the society. Community-based education is education for sustainability.	Ukraine

COMPARISON OF CONVENTIONAL AND COMMUNITY-BASED LEARNING

How do they complement each other?

	CONVENTIONAL		COMMUNITY-BASED
Standards set by:	Government: national/local		Community members
Developed by:	Pedagogy experts		Community members
Implemented by:	Formal Educators		Non-formal Educators
Scope:	Global, general		Local, specific
Funding:	Government		Various: In-kind support, local community support, creative fund-raising
Approach:	Theoretical		Practical
Students identity:	"Student of school x"		"Citizen of community x"
Focus within the learning cycle:			
Focus within the range of multiple intelligences:	o Verbal & linguistic o Mathematical & logical		o Inter-personal o Intra-personal o Kinesthetic

COMPARISON

The conventional formal education system focuses on the knowledge acquisition component of learning with a heavy reliance on factual scientific knowledge through a didactic information transfer. The community-based model strives to balance this approach with adding the development of action-oriented skills, fostering greater understanding of complex real life issues (not only facts), e.g. the relationship of economic, ecological, political, and social issues that local communities and the larger humanity is facing in the 21st century.

Most community-based education models invite community members only in teaching about local issues but have the curriculum designed solely by education professionals. ISC's approach encourages citizen engagement in shaping the local education in both the curriculum planning and teaching process. Increased community involvement also makes citizens more committed to share the responsibility of education of the next generation with the educational institutions.

The community-based approach to environmental education encourages students to learn together with their parents and actively explore their local environment. A compelling benefit of the community-based

approach is that it develops the knowledge and skills not only of the youth but also a large adult population: parents, teachers, and other participating citizens.

Community-based education complements conventional education in several ways. Perhaps the two most important aspects are expressed in the following:

- **Action oriented**: The community-based approach is action oriented. It has a distinct emphasis on building skills that help students to apply their academic knowledge to their everyday life. The community-based model encourages students and community members to learn together by using a hands-on approach to explore their own local issues.
- **Makes learning relevant to life**: Rather than relying only on teachers to provide learning experiences, community-based programs strive to bring the specialized knowledge and expertise of community members into the formal education process. Local citizens are active players in the program, from picking the topics of priority interest of their community to designing curricula and teaching students. Everyone is a learner and can be a teacher in a community-based environmental education program.

CURRICULUM DEVELOPMENT

ISC supports indigenous, locally rooted and relevant curriculum development, instead of exporting and imposing "ready-to use" generic or foreign curriculum. Project participants are introduced to good examples of community-based curricula from other countries but they develop their own education program based on their formal education requirements and cultural roots.

The community-based curriculum development is lead by a volunteer multi-stakeholder citizens' advisory group. Interested citizens form the advisory group and make recommendations for professional curriculum developers on what local issues are important to be addressed in the curriculum. The professional curriculum developers then design and write the curriculum as well as the accompanying lesson plans with regular consultation of the citizens' advisory group. The curriculum development process is endorsed and supported by the local educational authorities and the piloting school's principal. The pilot community-based curriculum is generally one or two semesters long.

The curriculum is tested in one or two schools of the demonstration community. The teaching is shared by volunteering classroom teachers, the advisory group members and/or other interested citizens. After being successfully tested and revised, the curriculum is approved by education authorities (regional or national) to be taught in other schools either as a regular or elective class.

ROLES AND RESPONSIBILITIES IN COMMUNITY-BASED LEARNING

Coordinator

Coordinating the whole process with the guidance and support of the multi-stakeholder core group. The coordinator needs to have excellent communication skills as s/he will be in touch with many different types of people: corporate, non-profit, government. Also, this is a position for a highly organized person who likes to be exposed, recruit volunteers, partner organizations, and give interviews to the local news. This is a full time job.

Curriculum writer

Writing the curriculum, lesson plans, and instructions based on the requirements of the appropriate education authorities. Making sure the curriculum is peer reviewed and approved by the authorities for teaching. This role requires professional education / curriculum development training and background.

Educator

Sharing your experience, wisdom, knowledge, and skills in certain areas with students and adult community members either in the school or outside of the school. You do not have to have teaching experience for this role. You will learn it if you do not have it.

Multi-stakeholder core group member

Providing guidance, advice, fundraising tips and institutional support for managing the process. Overseeing the whole process, identifying issues and topics for the curriculum. Make sure the core group represents all major groups of the community-based learning process: student, teacher, teacher trainer (higher education), researcher, NGO, government, private sector, parent, media, non-working community member. Try to keep the core group size under 10 people.

Resource person

Identifying and mobilizing resources to support all parts of the process. Resources include data, information, funding, volunteer work, equipment, material, room, etc.

COMMON PITFALLS OF COMMUNITY-BASED EDUCATION

ACTION	CONSEQUENCES
Teachers need to "do" community links.	The excitement of volunteer involvement drops, the quality of community-based learning is poor.
Students are not involved in planning.	Students will consider community-based learning as nothing serious, collectively playing hookie.
Parents are used only as supporters.	Parents will not see the big picture, so they will complain about their “exploitation” and eventually turn against the program.
The multi-stakeholder group gets politicized.	The decisionmaking slows down and eventually grinds to halt and the program will lose support.
The coordinator is not getting paid.	The coordinator sooner or later leaves the project.
Volunteers are not trained.	Poor quality of teaching, learning that results in lost credibility: the program has to end.
The curriculum is not reviewed annually.	The curriculum will not be relevant to daily life any more, no one is interested in volunteering, and the program dies slowly.
No assessment.	Impossible to show results which can bring the program to a sudden end if even one participant complains about the quality.
Poor media coverage.	Difficult to find volunteers, resources. The coordinator spends more time with fund-raising than supporting the learning program, that slowly overwhelms the whole initiative and the program ends.

IV.2. CURRICULA

This section brings you three examples of one-semester curricula for elementary students. Polish and Hungarian educators developed these curricula and tested the activities during the Partners in Education project. The curricula are currently being tested in the 2001/2002 school year.

1. Kindergarten (5-6 year old) by Ewa Smuk, non-formal educator, Poland

2. Grade 4 (10 year old) by Emmi Adam, teacher trainer, Hungary
   This curriculum addresses one of the biggest challenges of education for sustainability: how to prepare young people to make sustainable consumer choices. This creative curriculum engages both parents and community members in the teaching and learning process.

3. Grade 4-5-6 (10-11-12 year old) by Alicja Wróblewska, classroom teacher, Poland
   How to teach about sustainable development within "environmental education"? This is one of the three interdisciplinary, cross-curricular themes of the Polish education system.

1. CURRICULUM FOR KINDERGARTEN

No.	Time	Theme of Unit	Reference to Curricula Basis/ Standards	Type of Activity and Educational Effects	Literature	Songs, Music	Letters to Pre-school Teaching	The Main Content / Knowledge
1	September 3-5	Goodbye Summer		August story /fairy tale, Sun – the role of sun; Why the sun is necessary?		VIVALDI		Nature cycles
2	September 10-15	Four Seasons		Poems, songs, life-cycle of plant, nature calendar				
3	September 17-21	Fall is Coming		Seeking fall's symptoms, fall's gardening, fall's salads & preserves, fruit drying: fruits of rose and lilac.				The role of sun
4	September 24-28	Michael's Struggle with a Lion		Fall's gardening, human affects nature				People affect nature
5	October 1-10	Parable about the Sower		Seeds, fruits, peanuts – arts presentations (groats, seeds of bean, playthings from chestnuts and acorns); What do human do concerning with nature?				
6	October 8-12	Lorax		Lorax history – puppet making, show preparing, scenario building				
7	October 15-19	From Seed to Bread		Bread history, bread making, bread meaning, Where is my apple cake from?				Responsibility
8	October 22-26	Matter Circulation		The Lion King, relationship between living creatures and nature, food chains				Interconnectedness
9	October 29 - November2	All Saints' Day		Ecosystem, life cycle of human. What will be my life in 10, 20 years?				Sustainable community
10	November5-9	Marcin Holiday		About hause oblivion –sharing with others – sustainable community				
11	November 12-16	I am a Little Pole		I am a little Pole, pumpkin transformation/metabolism – what is happening with fruit – pumpkin, seeds, compost; responsibility for wastes – what can we do?				How I would like to live?

12	November 19-23	House – building		Community planner What house do you want to live in?		three pigs.....		
13	November26-30	My Needs and My Wants		House making				The importance of spirituality in our life.
14	December3-7	Advent Welcome		Advent stories				
15	December10-14	Toys, Decorations, Gifts		Sharing with others – sustainable community				
16	December17-21	Christmas Mystery		Christmas stories, Christmas carols				
17	January 2-5	Happy New Year!		New Year; Goodbye The Old, Happy New Year!				
18	January 7-12	St. Frank Stories		St. Frank – environmentalists' patron; Who he was? Stories, songs; Who are environmentalists?				
19	January 14-19	Winter		Games, Snowing Queen, dangers of winter				
20	January 21-26			Winter sports				
21	January 25 – February 2	Carnival		Winter stories and fairy tales – Astrid Lingren				

2 . Curriculum for Grade 4
Sustainable Consumption

Lesson	Theme	Concepts	Activities	Resources	Subjects
1.	Where do we shop?	shops Small, family run shops shopping malls grocery stores super market	Small group: arranging pictures into categories by various criteria	ads magazines / catalogues, advertisement photos for various products	Mathematics Environment
2.	Let's see the prices!	price products sale produce	Price change over time of selected products (as a result of previous field study) Graph: Price change over the time	Notebook, pen, ruler, ads magazines / catalogues	Mathematics
3.	What can we buy in the farmers market?	bargaining farmer merchant, salesperson, distributor, dealer	Role play, Simulation game Poem: analysis	Notebook, props for the role play	Literature Language arts
4.	Bee-line to the farmers market	bargaining farmer merchant, salesperson money	Purchasing goods, shopping – field study	Handout	
5.	What makes up the price?	quality quantity demand supply bargaining farmer merchant, dealer	Sharing experiences, reporting of small groups	Purchased goods Handout Notebook	Environment Literature Language arts
6.	Fall-mix	recipe list of products receipt expiration	Recipe (e.g. apply pie) list of ingredients Cooking / baking	Recipe (e.g. apply pie) list of ingredients, receipt	Environment Literature Language arts Mathematics

7.	What can I do with advertisement?	advertisement supply demand consumption	Activity: Advertisement	Activity: Advertisement Products, pens, pencils for drawing, making collage	Literature Language arts Arts
8.	We're wrapping, wrapping everything!	packaging packaging materials recycling, re-using	Discussion, field studies	Products, packaging materials	
9.	What's in the box? When does it expire? Still edible?	Healthy eating E – figures, numbers guarantee, warranty preservatives colorings half-processed food processed food (ready to eat) food	Grouping products according to various criteria	Products, Handouts for putting them into categories	
10	Shopping - mopping! Board game		Reviewing all the concepts learned so far Developing a board game in pairs, playing the board game Students jointly develop and write up the rules.	pens, pencils for drawing, large sheet of paper, dice, pins	Language arts Visual arts Arts

3. Curriculum for Grade 4-5-6
"Environment from the aspect of sustainability"

Lesson	Essential learning from curriculum basis	Theme	Performances /knowledge & skills/	Methodology
I	Influence of daily activities and behaviors at home, at school, at work on natural environment.	1. I balance with nature – do you know what does it mean?	§ student knows basis of ecology principles, § student knows concept of sustainable development, § student is able to compare good and bad sides of his behavior in environment.	SWOT, icebreaker – defining goals
		2. Our common day.	§ student is able to list activities that he/she does during the day, § student is able to compare activities that support environmentally friendly behavior and attitudes § student knows own needs, family needs, community needs. § student is able to develop alternative ways for his/her behavior in order to use natural resources in sustainable way.	brain storming, concept mapping, diamond ranking, activity – how to reach goals?
		3. Are wastes the problem?	§ student knows types of wastes, § student knows what is recycling and what is the best one for the environment. § student is able to manage his/her garbage, § student is able to make compost, § student aspires to reduce wastes production	metaplan, activity – mapping of uncontrolled landfills; participation in computer's game "Garbage island"
		4. Your ideas on water protection.	§ student knows water resources and role of water § student knows water sources, § student is able to analyze physical and chemical water characteristics, § student understands concept of rational water using,	film direction about water, computer's game, activity - wiczenie – chain of associations
II	Lifestyles and their connection with natural resources depletion.	5. Do you know what you eat?	§ student knows synthetic additions to food and their influence on humans health, knows what are substitutes	635, activities, brain storming,

			§ student knows demand for nutritious food and calories for people of different age profession, sex and health § student understands rule of balance between nourishment, food needs and environment productivity.	activity – kitchen is full of wonders
		6. What can I do in my free time?	§ student is able to rest in active way, § student understands concept of ecotourism, § student is able to find ways of appropriate recreation. § student knows places in neighborhood for active resting, § student perceives relation between homeostasis of living creatures and sustainability development.	visioning – trip to the nearest neighborhood
		7. Lifestyle and natural resources.	§ student distinguishes styles: - consumerism - economy - "plunger" - indifferent § knows what are renewable and nonrenewable resources § shows ways and kind of life styles that support environment.	activity – expenses balance, footprint calculation, natural resources, brain storming
III	Example of places (in the nearest neighborhood), in which we observe positive and negative changes in environment.	8. Overheating, from sources of energy to using energy.	§ student has gained knowledge on energy needs of humans and community § student knows basic sources of energy and ways of using energy.	activity – seeking sources of energy in our neighborhood, alternative ways of using energy activity – searching depletions of heating, brain storming
		9. Where can we build houses and from what material?	§ student is able to tell what buildings in other countries are made of? § student knows various building materials and their impact on human health § student is able to create vision of own house	activity – architecture in different countries, ranking, brain storming, "timeline" individual presentation,

		10. On the doorsill of my house.	§ student knows problems of daily life and is able to show them. § student aspires to improve quality of life through own activities for environment.	assessment of attitudes and presentation. activity –we change history process"
		11. How can we prevent noise in our town?	§ student knows sources of noise § students knows what a decibel is § student knows possibilities of reception signals § knows ways of preventing noise pollution § student is able to assess environment affect living creatures	searching data on sources of noise.
		12. Forms of nature protection in my neighborhood.	§ student knows various forms of nature protection. § student is able to identify forms of nature protection in nearest neighborhood.	interview, project, brain storming
IV	Environment degradation - cause and impact on human's health and connection with kind of human activities.	13. Water – habitat for plants and animals or resources for human.	§ student is conscious that on the rule of sustainable development, correct function of water ecosystems and their biodiversity is necessary for preservation of fresh water resources and to use it as drinking water and for various human activities.	interview, observation, field trip, analyzing and inquiry
		14. Soil – special component of environment,	§ student knows ways of soil protection against degradation, § student is able to recognize basic creature living in soil and define its role in various process, § student is able to recognize relations between protection of all habitats, preserve biodiversity and possibility to farther economy development	outdoor observations, brain storming, determining soil creatures.
		15. Everything is interconnected.	§ student is able to recognize regularities in natural mating cycle and relations between plants and animals. § student is aware of consequences of human interference in environment § .	activity – "Real", ix Thinking Hats" by Edward de Bono

V	Protected areas and their importance in preserve biodiversity - the rules of behavior on these areas.	16. Inhibitors of degradation in nearest neighborhood.	§ student understands and recognizes improper management of natural resources. § student is able to find ways in own behavior for improve environment, § student analyzes past-now-future	
		17. Could you be a part of nature?	§ student is aware of need for nature protection, § student knows principles of behavior on protected areas, § student is able to read information signs, § student teaches others how to use element of nature.	snowing ball, timeline, ranking
		18. Help your environment!	§ student is able to enter into relations with institutions, environmental organizations working in this region to protect and improve state of environment. § student feels need for take action. § student is a promoter of collaborative action.	

IV.3. LESSON PLANS

1. BSE
2. Community-based and Internet-based Approaches to Education
3. Community Postcard
4. Deciding What is the Most Important for Us
5. Dairy Products: Exploration
6. Do We Really Know Each Other?
7. Ecological Footprint Calculation in the Formal Education: How?
8. Education for Sustainability (EFS): Why?
9. Environmentally Friendly Shopping
10. Farm Animals (traditional and high breed)
11. Gaia Theory – System Thinking
12. How to Achieve Consensus?
13. How to Design a Sustainable Community
14. Indicators of Sustainability: Exploration
15. Indicators of Sustainability: Let's develop our own indicators!
16. Indicators of a Sustainable Community
17. Joy and Sorrow Map
18. Landfill: Do we need a landfill like this?
19. Local & Global Economy
20. Looking at the Community through Sustainable Eyeglasses
21. Meadow and Lawn: What is the difference?
22. Our Needs and Wants
23. Orange
24. Organic Farming versus Large Scale Agriculture
25. Parable about the Sower
26. Questionnaire: How sustainable is our community?
27. School – Community Partnership: Sustainable Transportation Projects
28. Stone Soup
29. Sustainability: Introduction
30. Sustainable Communities: Definitions
31. Sustainable Meal
32. Sustainable School: What does it look like?
33. Teams and Words
34. Time Management
35. Traditional Cserkútians and the New-comers
36. Water Resources: How to use them?
37. World in Five Paradigms

Title of Activity	BSE (bovine spongiform encephalopathy)
Topic	BSE, globalization - strengthen: epidemic, prevention - new: prion, CJD disease, BSE disease
Background	The current problem of BSE is media issues. This lesson can be conducted as an additional lesson at the teacher's disposal. The teacher asks students to collect information and materials about BSE in Poland, Europe and worldwide. Students work in teams on a chosen issue.
Audience	High school students
Time	45 minutes
Objectives	Students - learn what epidemics appeared in the world through ages; - are able to define process of action prions in human body (Creutzfeldt & Jakob disease), - know genesis and symptoms of BSE /bovine spongiform encephalopathy/, - are able to list products that include beef, - are able to run a simulation about economic impact of BSE on Polish agriculture
Process	- Divide students into five groups /use blocks in 5 color/ - Give each group one issue to research: 1. Epidemics through ages /timeline/ 2. BSE history in Europe /map includes quantity of trouble spot/ 3. What are prions and what is process of CJD in human body? 4. Eat or not to eat? - ranking of based beef food products 5. Impact of BSE on Polish agriculture – chance or threat? - Each group selects a leader who presents the group results (on poster) - Evaluation
Learning method	- individual work at home /information collecting/ - discussion in small groups - analysis of materials and information collected by students and teacher - presentation of poster created by students.
Materials	- articles on BSE from Polish newspapers and magazines: "Wprost", "Polityka", "Bravo" - information from Internet: www.servis.bse.pl, www.bse.tc.pl - animal diseases dictionary - sheets of paper, scissors, markers, glum - magnets to poster presentation, string, paper fasteners
Source	Beata Lenc-Macierewicz
Recommended reading	The New York Times' Teacher Center Lesson plans to address daily news: http://www.newyorktimes.org/learning/index.html Exercise your critical thinking when you use only one news media. It is better to use two or more newspapers' - triangulate – to address the same daily news to avoid bias, and give students room for their personal response.

Title of Activity	Community-based and Internet-assisted Approaches to Education
Topic	Learning to learn, lifelong learning
Background	Get on-line, otherwise you are left behind. Community-based AND / OR technology-assisted education. It depends on you and your goals. Age, education, access to the internet, vision etc are all influencing your decision..
Audience	adults
Time	45 minutes
Objectives	By the end of the activity learners will be able to list three positive and negative aspects to both community-based and internet-assisted learning.

Process	Preparation: Encourage your audience to do a search on the internet for "community-based learning" and check out the recommended readings. Pairs or small groups are invited to list positive and negative aspects of community-based and internet-assisted learning using the matrix in the handout (20 mins). Whole group discussion of the results (25 mins).
Learning method	Small and whole group discussion
Materials	Open mind, paper, pen Handout, Community-based and internet-based education
Source	Déri Andrea
Recommended reading	Bowers, C.A. (2000). Let Them Eat Data. How Computers Affect Education, Cultural Diversity, and the Prospects of Ecological Sustainability. The University of Georgia Press, U.S.A. Alan November (1998): The Web – Teaching Zack to Think http://www.anovember.com/articles/zack.html Community partnerships in education: Dimensions, Variations, and Implications http://www2.unesco.org/wef/en-leadup/findings_partsum.shtm EU's eLearning Initiative http://www.en.eun.org/eun.org2/eun/en/news/ European Schoolnet (EUN) http://www.en.eun.org/eun.org2/eun/en/index.html Education for a Sustainable Future http://csf.concord.org/esf/ Association for Supervision and Curriculum Development (ASCD) http://www.ascd.org/ About Learning 4MAT http://www.aboutlearning.com European Commission: Education http://europa.eu.int/comm/education/index_en.html European Commission: Environment: Environmental Education and Training http://europa.eu.int/comm/environment/eet/

Handout, Community-based and Internet-assisted Learning

Examples: Hungarian and Polish educators.

	COMMUNITY-BASED Approaches to Learning	**INTERNET-ASSISTED Approaches to Learning**
BENEFITS	• joint decision making with shared responsibility • clarifies values and attitudes • helps joint thinking about the future • strengthens the sense of place and belongingness to the local community • creates better communities • makes learning relevant to life	• provides international scope • you are connected to many people with different perspectives • easier access to information • "attractive" to youth because it is interactive, you can see the impact of your actions/decisions immediately

PROBLEMS	• engaging community members is difficult • both the preparation and the implementation takes a lot of time (at least more than needed for a classroom lesson) • responsibility, decision making power is not clear • can be frustrating if the community members do not have all the capacities they need to further their priority issues	• "digital divide": only the few rich, elite have access to internet • language difficulties: you need to speak major world languages esp. English to access information • no face-to-face contact: impoverished communication • negative impact on early childhood development • you have to follow, keep up with, the technology innovations, you are not in charge, you need constant investment

Title of Activity	**Community Postcard**
Topic	What is a community?
Audience	Middle and high school, adults
Time	45 minutes
Objectives	By the end of the activity learners will be able to describe a community.
Process	1. Invite students to fill out the Handout 1 – individually (5 minutes) – and share their findings in their small group (10 minutes). 2. Encourage the small groups to make a postcard with suggestions for how to build a good community. (15 minutes) 3. Give each group Handout 2 and have them compare their list with the list of the "How to build a community?" postcard. 4. Share the small group's postcards and encourage whole group discussion about differences, similarities (cultural, social etc.). (15 mins).
Learning method	Small and whole group discussion, comparison
Materials	paper, pen Handout 1, Community Postcard Handout 2, Community Postcard
Source	Déri Andrea Postcard from Syracuse Cultural Workers: scw@syrculturalworkers.org, http://www.syrculturalworkers.org

Handout 1 , Community Postcard

Think of the neighborhood where you live.

- If you think your neighborhood is YES INDEED a real community, then write down 10 reasons why you think it is (e.g. what does it look like; what do people do etc.)
- If you think your neighborhood is NOT REALLY a community (just a whole bunch of people living in the same area), then write down 10 suggestions how you and your neighbors could create a community. What stops you from getting involved?

Handout 2 , Community Postcard: How to Build a Community?

Turn off your TV, Leave your house, Know your neighbors, Greet people, Look up when you are walking, Sit on your stoop, Plant flowers, Use your library, Play together, Buy from local merchants, Share what you have, Help a lost dog, Take children to the park, Honor elders, Support neighborhood schools, Fix it even if you did not break it, Have pot lucks, Garden together, Pick up letter, Read stories aloud, Dance in the street, Talk to the mail carrier, Listen to the birds, Put up a swing, Help carry something heavy, Barter for your goods, Start a tradition, Ask a question , Hire young people for odd jobs, Organize a block party, Bake extra and share, Ask for help when you need it, Open your shades, Sing together, Share your skills, Take back the night, Turn up the music, Turn down the music, Listen before you react to anger, Mediate a conflict, Seek to understand, Learn from new and uncomfortable angles, Know that no one is silent though many are not heard – work to change this.

Title of Activity	**Deciding what is the Most Important for Us**
Topic	Developing sustainable development goals for our local community.
Audience	Highs school, adults
Time	Several days
Objectives	To learn about the most pressing community issues.
Process	- Prepare a questionnaire – what is most important for us - in terms of creating our sustainable goals, we as community. Add a cover letter that explains the goal of this questionnaire. - Send the questionnaire and the cover letter to as many members of the local community as possible. Make sure you have a representative sample after receiving feedbacks, prepare three columns: environment, economy and society and fill it in: write adequate problems or issues in right columns. It might be difficult to separate, box certain issues into these categories as all problems have implications for all three aspects. - Invite all members of your community to show them the results of the returned questionnaire. - Start a discussion on the highlighted problems, ask people to explain them, maybe someone wants to add to this list another issue or problem. - Give everyone 9 stickers: 3 red (economy), 3 yellow (society) and 3 green (environment) and ask them to vote for their three most important issues/problems. - Based on the votes, revise the list. - Having developed the new list of the most important issues, ask the question: are these the real sustainability goals in our community? If yes, develop a draft action plan for each goal.
Learning method	Developing a questionnaire, collecting and interpreting data, prioritizing, developing action plan
Materials	Paper, pen, computer and printer, envelope and stamp to mail the questionnaire.
Source	Witold Lenart, adapted with permission from ESD Toolkit (http:www.esdtoolkit.org)

Title of Activity	**Dairy Products: Exploration**
Topic	Basic knowledge about everyday products
Audience	Middle school
Time	6 x 45 min (or more)
Objectives	Students learn about dairy products, recognize differences between products of traditional and large-scale farming, make rational consumer's decisions according to principles of sustainability
Process	1. Preparation: look for a nearby supermarket (1) and a place where you can buy traditional, small-farm-made dairy products (local market, bio-store, farm). 2. Introducing lesson: Bimbo story 2 – what we get from cattle? Role of dairy products in healthy nutrition. Traditional dairy products vs. organic farming. Creating questions for interview with farmer (45 min) 3. Work in pairs in supermarket. All pairs fill in questionnaire for 10 products and 1 product group (milk, cheese, yoghurts, etc.) (2x45 min). Conduct an interview with an employee or the manager of the supermarket. 4. Do the same in location 2. Buy some less-known products for tasting (2x45 min) 5. Discussion: how dairy products are made traditionally and in the dairy industry; what artificial ingredients do they contain, what do we know about them? Where do the products come from – put it on a map! What percent of them arrived from foreign countries? What happens with the product until it gets to the shelves? What are the economic, environmental and social costs and benefits of the products? Compare traditional and industrial products by taste, healthiness, and environmental effects. Considering these, which one would you choose? What do you think can be bought after 5, 10, 50 years? (45 min or more) **Vocabulary** **Healthy**: contains what is needed for normal life processes and does not contain harmful chemicals **Environmentally friendly**: a product that does not damage the environment, or – more often – damages it less than other similar products. (Less is relative: buying a one-litre combi-packed milk is more environment-friendly than buying five 0,2 litres, because has less package; but even more environment-friendly to buy milk in a reusable glass jar). Ecological loss or gain is hard to define but you should always consider the big picture from a system thinking point of view: E.g. if a dairy firm installs a new production line, it costs a lot, but will be balanced by extra gain on new products or by wages of workers dismissed because their work is made by the new equipment. Paying unemployment support for these workers or producing new workplaces for them is a cost for the community, which should also be considered. **Socially Responsible**: consider social questions too; try to avoid social damages, e.g. laying off people. **Economically Viable:** making the business profitable.
Learning method	Story-reading, making interviews in different places in pairs, discussion,
Materials	Hard board for writing, interview questions, maps Handout 1: Questionnaire for 10 dairy products Handout 2: Questionnaire for dairy product groups
Source	Ortmanne Ajkai Adrienne

Handout 1, Exploring Dairy Products

Questionnaire for 10 dairy products

Name of product										
Producer										
Place of production										
Natural ingredients										
Artificial ingredients										
Packing(s)										
Price (pro 100 g product)										
Designated as environment-friendly?										
Do you think it is really environment-friendly?										
Designated as healthy?										
Do you think it is really healthy?										

Handout 2, Exploring Dairy Products

Questionnaire for dairy product groups

Name of product group	
Number of products belonging to this group	
Number of firms producing them	
Is there any that contain only natural ingredients? Name:	
Which one contains less artificial ingredients?	
Which one contains more artificial ingredients?	
Which one has less packing?	
Which one has the most packing?	
Cheapest (for 100 g)	
Most expensive (for 100 g)	
Which ones are produced in our neighborhood? How many?	
Which ones are produced far away? Where? How many?	
Which one arrived from farthest away?	
How many of them you have tasted before? Which ones?	
How many of them does your family buy habitually? Which ones?	
How many products of this group do you think we need?	

Title of Activity	**Do We Really Know Each Other?**
Topic	Ice breaker, communication, and the role of communication in building sustainable communities. Helping communities to establish sustainable development goals.
Audience	No age limit
Time	10- 30 minutes (depending on the group size)
Objectives	meeting our goals about future, individual and community; encourage to listen to others, building strong connections
Process	- Work in pairs (people should not know each other); - Share the following with your partner (1 minute): relevant personal experience, your role in your community, dreams and goals associated to living in your local community; - Partner repeats all information. The speaker corrects. - Now, they switch roles. - Facilitator groups every 2 pairs and every person should introduces her/his partner /1 minute/ to others in this group of 4; - Now the facilitator mixes all participants and asks them to repeat these introductions so all people know each other.
Learning method	Individual, pair, listening, reflecting, memorization
Materials	none
Source	Witold Lenart, adapted with permission from ESD Toolkit (http:www.esdtoolkit.org)

Title of Activity	**Ecological Footprint Calculation in the Formal Education: How?**
Topic	Sustainability indicators
Audience	Middle, High school, adults
Time	2 x 45 minutes
Objectives	• How resource (e.g. water, soil, energy) consumption affects the Earth? • How people live in other parts of the world, how their lifestyle affects their environment? • Proposal: how local ecological footprints can be lessened?
Process	• Students calculate their own ecological footprint • Students compare their ecological footprint to the average of their country or other countries. E.g. Handout 1. • Analysis of ecological footprint can be part of local curriculum. Pupils calculate the ecological footprint of their communities (e.g. their home, school, town). Data can be collected through field or library research, questionnaires, and interviews. They can find out changes, observe their effects (e.g. waste reducing, waste reuse, selective waste collecting, reducing energy consumption, changing eating habits). • Students can report their results to the community and make proposals for reducing the ecological footprint. • Discuss the efficiencies and shortcomings of using the ecological footprint. See examples in the Handout 2.
Learning method	Individual, small group, analysis, comparison, interpretation of data
Materials	Computer, internet access Handout 1-2, Ecological Footprint
Source	Gilly Zsolt, adapted from Center for Sustainable Future http://csf.concord.org/esf/ and the Green Teacher 2001, Spring, Vol. 64. page 14-19., http://www.greenteacher.com/backiss.html
Recommended reading	Ecological Footprint for Schools Green Teacher, 2001, Spring, Vol. 64. page 14-19. http://www.greenteacher.com/ Redefining Progress http://www.rprogress.org/

	Center for Sustainability Education http://www.globaled.org/sustain/sustain.html LEAD's Ecological Footprint Calculator http://www.lead.org/leadnet/footprint Center for Sustainable Future's Ecological Footprint Calculator http://csf.concord.org/esf/Software_EFC.cfm Living Planet Report 2000 http://www.panda.org/livingplanet/lpr00/ The Ecological Footprint : www.ecovayageurs.com/ecofoot/footprint.htm Tips for decreasing your ecological footprint: www.ecovoyageurs.com

Handout 1, Ecological Footprint

Nation's average	Ecological footprint (ha/cap) Without biodiversity	Ecological deficit (ha/cap) Including biodiversity
World	2.9	1.1
Poland	5.4	3.8
Hungary	5.1	2.7
USA	12.2	8.4

Source: http://www.rprogress.org/programs/sustainability/ef/deficittable1_nations.html
All areas are expressed in hectares of bioproductive space with World average productivity.
Data: 1996

Name	Country	Hectare Total	Earth	Comments
Asia	Poland	2.3	1.12	
Ewa	Poland	4.0	< 2	
Beata	Poland	3.9	< 2	
Ala	Poland	2.7	1.25	
Marlena	Poland	5.1	> 2.5	
Emmi	Hungary	4.8	>2	
Zsolt	Hungary	3.6	>2	
Agi	Hungary	3.4	>2	
Bia	Hungary	4.7	3	
Icu	Hungary	4.4	3	
Andrea	USA	16.2	8	She travels a lot by air.

Calculations made by http://csf.concord.org/esf/Software_EFC.cfm

Handout 2, Ecological Footprint

Efficiencies	Shortcomings
• math is very impressive • creative and imaginative for kids, exciting • can easily link to communities • good tool for looking at lifestyle comparisons • addresses social issues: communication, connecting with the community • examines the implications of transport (air, cars, solar, energy efficiencies, etc)	• global comparisons are weak • reductions in personal choices may not reflect changing footprint (too big a scale) • sensitivity is suspect • ways of life in countries are different, difficult to compare • mathematics is difficult to understand for average people • unsure how social choices, community participation is factored into calculation

Title of Activity	Education For Sustainability (EFS): Why ?
Topic	Introduction to sustainable development
Audience	Grade 4 to adults
Time	45 minutes
Objectives	- students learn the concept of renewable resources, - students learn the concept of carrying capacity, - students learn three aspects of sustainable development: environmental, social and economic and how they interrelated - students know how to communicate effective and seeking appropriate solutions.
Process	See Handout, Why EFS?
Learning method	small groups simulation game, discussion, seeking solutions
Materials	candies /4 per person/, paper bags /1 per group of four people/, blackboard Handout , Why EFS?
Source	Adaptation from EE Toolbox: Defining Environmental Education, John F. Disinger, Martha C. Monroe, 1994. by Asia Imiela, Poland

Handout, EFS: Why?

Process

1. Divide participants into groups of four: They are inhabitants of one village.
2. Put 16 candies in each paper bag that are named as bodies of water in Poland: e.g. Vistula River, White Lake, Baltic Sea, etc. Each bag should include 4 "fish" (candies) for one person from the group. If you have more participants then 4, you should put into each bag more candies.
3. Start by telling the groups that they are fishermen who depend on their catch for survival. Ask each person to reach into the "water" (paper bag) and pull out his or her catch and pass the bag around until everyone has fished for the day.
4. After this round, record the number of fish left in each bag on in a matrix like this example:

	Round # 1	Round # 2	Round # 3	Round # 4	Round # 5
Fish in Vistula River	1	12	6	8	8
Fish in White Lake	2	2	4	4	6
Fish in Baltic Sea	0	10	12	6	8

5. Now tell everyone that fishing, eating and surviving is not a one-shot activity. They should always think about tomorrow! Thankfully, fish reproduce overnight – for each fish left into bag there will be two the next day.
6. Since some villages will be starving, the facilitator can let them all start over and put all their fish back in the "water" (bag) for the second round.
7. After finishing second round, again record the how many fish are left in each "body of water".
8. As you begin third round, make sure each community has doubled the number of fish left in the water from their previous round.
9. Some of communities may wish to increase their fish population by leaving most of the fish in the "water". Tell them that their lake/ river or sea has a carrying capacity of 16 and the system is unable to support more then 16 fish.
10. After one or two more rounds, some of villages will have recognized a pattern of harvesting 8 fish, replacing 8 fish overnight and catching 8 eight fish the next day.
11. Now the situation is more complicated. Ask participants how many fish they need to meet their basic needs, only to survive /the need of the current generation/. Do they think about future generations and their needs or do they care only about themselves.
12. Ask them, if they realize that they have a surplus in their catch, how they can manage their fish to feed others, e.g. sell fish, give it away, etc. What strategy should they choose?
13. They could consider also selling or buying fish from others villages. What will be results of this approach?

14. Encourage participants to discuss village dynamics: What is going on in the villages that catch eight fish? Who made the decision? The entire group or maybe a leader? If there was a leader why did you trust her/him? Could you reach a decision without communication? How has more information you received changed the dynamics of decision making?
12. Ask participants to list biological criteria that they should consider if they want to harvest resources in a sustainable way, e.g.: population size, demand, carrying capacity, life cycle, and reproductive capacity.
13. Then ask participants about the social "needs" for sustainable development: communication, trust, legislation, understanding of consequences, etc.

Next step, tell participants that they are all sharing the same body of water and the same fish but they are at war. How should they deal with this situation? How to reach solutions, consensus? – discussion.

Title of Activity	**Environmentally Friendly Shopping**
Topic	Consumer decisions. Environmental impact of our consumer decisions
Audience	Elementary, middle school
Time	45 minutes
Objectives	To help students realize that condition of environment depends on their attitudes. After this lesson a student can: • recognize different kind of packaging • recognize recyclable packaging • make choices when they shop • list environmentally responsible garbage disposal practices
Process	Resolve a crossword puzzle, packaging is the hidden word. Teacher introduces students to the topic. Exploring drinks, work in consumer's groups. Students in groups fill in a handout. Students presenting their results. Which packaging is the best? Why? - discussion. Brainstorm lessons learned. What can we (students, parents, community members) do? ♦ If you can, try to buy a product without the packages. ♦ To buy products in a large packaging is better than in some small ones. ♦ Buy products in recycled packages. ♦ Do not buy the complex packaging (paper-metal, paper-plastic, etc.) Simple advice for avoiding waste ♦ Try to buy the returnable packaging ♦ Try to buy packaging which are suite for recycling ♦ Pay attention to the size of packaging ♦ Select the wastes in your house
Learning method	speaking, observation, resolving the problems in groups and individuals
Materials	Juices in different kind of packaging (glass, plastic, paper packaging) A crossword puzzle Handout 1 for Environmentally friendly shopping Handout 2 for Environmentally friendly shopping
Source	Ewa Wozniak

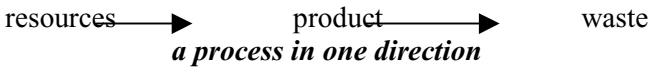
Handout 1, Environmentally Friendly Shopping

The teacher gives her students the handout to fill in during exploration of every kind of packaging – they must choose the best ecological packaging. They estimate all criteria of these products in 1-5 scale (1 point – the least; 5 points – max.)

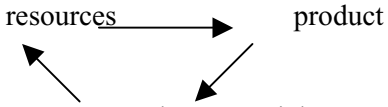
Criteria	Product name (samples from Poland)		
	"HORTEX" juice in paper-aluminum packaging	"HELENA" juice in plastic packaging	"SMAKU " juice in glass packaging
Taste			
Color			
Nutritious ingredients			
Price			
Packaging			
Comments			

Results: The Eva students decided the best ecological packaging is a glass bottle for juice (this packaging received the highest amount of points).

Handout 2, Environmentally Friendly Shopping



a process in one direction



repeated cycle (circulation)

Title of Activity	**Farm Animals**
Topic	Comparison of animals of traditional and industrial agriculture
Audience	Kindergarten and lower elementary grades
Time	1 day on a field trip + 2 x 45 minutes lessons
Objectives	To get to know traditional farm animals Comparison of traditional and today's agriculture, village life
Process	1. Preparation: Looking for a farm (or open-air museum, zoo, etc.) where traditional farm animals can be seen 2. Organizing the trip 3. Preparing lesson: Grey calf story; talking about other traditional farm animals, studying their picture or film about them 4. On the trip: Looking at the whole exhibition together; then groups of children fill out the worksheets about 1-1 animal 5. At home: groups talk about their experiences
Learning method	Field studies. Small group work. Sharing experiences. Comparison
Materials	notepad for writing, pencils for writing and drawing Handout, Farm Animals
Source	Hungarian educators

Handout, Farm Animals

Is this a traditional farm animal or modern breed?	
What kind of animal is this?	
What is the name of the animal?	
What does it eat?	
Where does it like to stay in different seasons?	
Where is it kept?	
How is it cared for?	
How are the young animals brought up, raised?	
What is this animal used for now and in the past? What does it give to us, humans?	
Please draw a picture of the animal.	

Title of Activity	**Gaia Theory: The Human Body and the Earth – Comparison of Systems**
Topic	System thinking, Health
Previous knowledge needed	Organs, organ-systems and functions of the human body; Health and environmental problems
Audience	Middle, high school
Time	2x45 minutes
Objectives	Students will recognize the human body as a system, and realize that the Earth is also a system that responds to human interventions. Students will be able to list actions to express their respect for the Earth as a system.
Process	Introduction to the Gaia Theory. Comparison of the human body and the Earth as systems, including their sub-systems: similarities, differences. Human health, global environmental problems: similarities, differences.
Learning method	Individual research, small group discussion, comparison, analysis
Materials	Large sheet of paper, pens
Source	Dóczi Ilona
Recommended reading	The Evolving Gaia Theory by James Lovelock, UN University: http://www.unu.edu/unupress/lecture1.html From Gaia Theory to Deep Ecology by Stephen Harding,Schumacher College:http://www.gn.apc.org/schumachercollege/articles/stephan.htm Center for Sustainable Future http://csf.concord.org/esf/

Title of Activity	How to Achieve Consensus?
Topic	Building a sustainable community. Helping communities to establish sustainable development goals.
Audience	Middle and high school, adults
Time	45 minutes
Objectives	To understand the various perspectives (cultural, religious, generation, ethical, etc.) while achieving consensus.
Process	- Working in small groups of 4-5 (participants should have different background) - Give each person a role: e.g. parent, banker, doctor, teacher, retired person, environmentalist, mayor, retailer, farmer, etc.; and give them the description of a community. - Participants play their role: everyone should describe the current situation in the community from her/his own viewpoint. - Try to achieve consensus about the three most pressing issues, by giving strong arguments. Questions for the discussion: What is the mechanism in your community to find out what are the most important problems in your local community? What skills and knowledge do you need to come to consensus? What are the advantages and disadvantages of consensus building?
Learning method	Individual, small group
Materials	none
Source	Witold Lenart , adapted with permission from ESD Toolkit (http:www.esdtoolkit.org)

Title of Activity	How to Design a Sustainable Residential Area (pop.1,000)?
Topic	Community development
Audience	Middle, high school, adults
Time	> 60 minutes
Objectives	To learn about the real life issue of community planning: balancing principles with the constraints of reality (legal, financial, social, environmental)
Process	- Students study the most important regulations for communities with less than 1,000 residents (it can be done as preparatory home work). - The whole group agrees on climate, the landscape, the geography, and history for the new communities. Student work in small groups to plan a new community. - Consider the following needs: energy, fresh water purification, waste water treatment, solid waste, cultural needs, recreation needs, food supply, access to education and health care, spiritual needs, communication needs, economic activities: What kind of jobs are needed? Can all 1,000 residents find work in this community? - Small groups design their own community either on paper or on computer. - Compare the different dream-communities. - Look for similar size real life communities with similar climate, landscape, etc.
Learning method	Small group, simulation, modeling
Materials	Regulations of local development (residential). Paper, pens. Computer, printer.
Source	Witold Lenart
Recommended reading	Software: Community builder - http://csf.concord.org/esf/ Designing Sustainable Communities – background information http://csf.concord.org/esf/

Title of Activity	Indicators of Sustainability: Exploration
Topic	Local possibilities of management of global problems
Previous knowledge needed	Theoretical base of sustainability indicators
Audience	Middle, High school, adults
Time	2 x 45 minutes
Objectives	Students are able to determine sustainability indicators, to collect data, to monitor changes
Process	Lesson 1 1. Environmental situation: in groups of 4-5 students reserach local, or locally relevant global problems which they found interesting; groups sum results and decide (with help of leader) which group will deal with which problem 2. Hunt for indicators: groups chose indicator(s) from a given list, which is helpful in studying the chosen problem. Important: they should choose an indicator, for which they actually can collect data! Groups give the reason for their choice, introduce calculation and data-collecting methods 3. Indicator monitoring (home work): groups collect data and calculate their indicator (if possible, for the past too) Lesson 2 1. Groups share experiences: which data could they obtain, which one could they not obtain; how easy or difficult it was to collect data; results. Discuss how these indicators can be improved. Suggested follow-up question, action: How is development measured in personal development and societal development? Search for and compare various development indexes.
Learning method	Group work, discussion
Materials	Handout: Indicators of Sustainability: Exploration Indicator lists for every group, place suitable for group work, exercise-book; internet resources
Source	Varga Attila
Recommended reading	International Institute of Sustainable Development http://iisd1.iisd.ca/measure/default.htm http://iisd1.iisd.ca/measure/compindex.asp http://iisd1.iisd.ca/measure/faqs.htm The Thomas Jefferson Sustainability Council: Linking Environment, Economy, Community and Humanity http://www.avenue.org/Gov/TJPDC/indicat.html United Nations Development Program: Analytical Tools for Human Development: http://www.undp.org/hdro/anatools.htm

Handout: Indicators of Sustainability: Exploration

In a village many illegal dumping grounds are a serious problem. This can be approached through more indicators, below are two examples:

1. Area of dumping grounds
2. New illegal dumps in a week

The first indicator is easy to measure (with a measure tape and some calculations) but does not reach the root of the problem. It can be lessened with community cooperation even to zero (local environmentalists eradicate it), but if illegal dumping does not stop, this indicator will reach its previous value in short time.

The second indicator reaches the root of the problem, but is difficult to measure (needs a permanent survey of the whole area); if its value can be lessened to zero (with attitude forming, police or home guard actions) we cannot be satisfied because old dumps still exist.

So one indicator usually cannot include all the important aspects of a problem. Flexibility – using the proper indicator in the proper time – can help a lot in solving problems but for an outsider it may seem untrustworthy. So we have to choose an indicator that gives relevant information about the problem.

Title of Activity	**Indicators of Sustainability: Let's Develop our own Indicators!**
Topic	Local possibilities of management of global problems
Previous knowledge needed	Theoretical background for sustainability indicators
Audience	High school, adults
Time	2 x 45 minutes
Objectives	Participants will be able to create and use indicators for their environment
Process	1. Refresh knowledge about sustainability indicators in pairs, summarize together (10 min) 2. Brainstorming (10 min). Collect relevant environmental problems, dangers for sustainability in immediate neighborhood. In this stage non-criticism is important. Leader writes every idea on blackboard and wards off critical debates. 3. Group votes for the issue they want to deal with. 4. Create an appropriate indicator for the chosen problem (in groups of 3-4). Leader stresses that indicators should be easily observable, quantifiable and show changes in reasonable time. Groups should consider methods of monitoring and possibilities for changing values (15 min). 5. Groups introduce their indicator and methods for its monitoring and changing 6. Invented indicators can be used in planning and implementation of local monitoring and management plans.
Learning method	Pair work, group work, brainstorming, voting, discussion
Materials	Blackboard, chalk, place appropriate for group work, exercise-book
Source	Varga Attila
Recommended reading	Isaak Walton League Of America - Sustainability Education Project Http://www.Iwla.Org/Sep/Index.Html Mini-Curriculum For Grade 9-14 On Sustainable Communities Including Using Indicators.

Title of Activity	**Indicators of a Sustainable Community**
Topic	Sustainability indicators
Audience	Middle, high school, adults
Time	45 minutes
Objectives	To establish a hierarchy of criteria of sustainable community indicators.
Process	1. Ice-breaker: "How would you know your community is sustainable?" Let each group member give one or two "indicators". The following list was developed by Polish and Hungarian educators: windows without curtains, adults & kids playing outside in the rain, and enjoying it!, people are talking and dancing, people are resting in front of there house (e.g. on the porch), people are smiling and happy, small shops are plenty in town, kids are making friends with neighbors, lots of exchanges, private decisions are being made with the community in mind, people exchange sincere greetings, look into each others eyes, people segregate waste, recycle, exchange magazines with neighbors, letters sent to neighbors are delivered back, see solar panels (use of solar energy is high), neighbors pay bills when you are gone, people give rides to others, there are no fences. 2. Introduce the board-game: There is one big board /sheet of paper/ split into three parts. There are cards with indicators in the central part and they are first- rates. In the next part there are second-rate cards. The rest of the cards could be placed outside the board.

	Process: • Every player get 4 closed cards. • Every card include one indicator /criterion with short description/. • Player who start the game show one own card and read it to others and then place it on the board where in his opinion it should be. • Every player from group does the same. • If the place where someone wants to put his/her card isn't free, he should to persuade participants to replace cards. Whole group decide about replace or not and when they agree, the reject card must come back to owner. • The winner of every group is person who put all his/her cards on the board. • After every group finish the game, it could be necessary to compare the results and discuss them.
Learning method	2 groups of six ; game: criterion poker; discussion
Materials	2 sheet of paper, set of indicator cards with short description (see Handout) , markers Handout: Indicator cards for Indicators for sustainable community
Source	Original, Polish group
Recommended reading	"Designing Sustainable Communities – background information" http://csf.concord.org/esf/Teacher_DevDSC.cfm

Handout: Indicator Cards for Indicators for Sustainable Community

NATURAL ENVIRONMENT People acknowledge the interconnectedness of all life, put the needs of the ecosystems and the human spirit above special interests, and accept responsibility for creating a healthy, sustainable environment.	**FOOD PRODUCTION** Local farmland is preserved for local food production, farmers and workers earn a living wage, non-toxic and humane practices are utilized, and soil and water are protected for future generations.	**HOUSING** In a sustainable community, structures are designed and built in ways that meet human needs and support social and environmental health. Housing is safe, affordable, energy and resource efficient, and available to all.
POPULATION The population is stable and within the "carrying capacity" of the land, water, and air.	**EMPLOYMENT** Full employment that contributes to sustainable livelihoods in safe, clean and healthy environments at work and beyond.	**ACCESS TO INFORMATION** People at all levels should have access to environment, resources and development data in forms that are understandable.
TRANSPORTATION Most daily needs can be met by foot, bicycle or public transportation. Public and private vehicles are powered by clean, renewable fuels	**SPIRITUALITY** People appreciate their unique potential for growth, invention becomes a daily event and random acts of kindness become the norm.	**BIODIVERSITY** Biological resources feed and clothe people and provide them housing, medicines and spiritual nourishment.
ENERGY People use efficient technology and renewable energy resources.	**SECURITY** Everyone needs to feel loved, taken care of, happy and safe to live and work.	**HEALTH** People take responsibility for their individual well being and co-operate to nurture social and environmental health

WATER CONSUMPTION People use water no faster than it can be naturally replenished. This means that consumption can be no greater than the maximum sustainable yield of the water supply.	**GOVERNANCE & PARTICIPATION** Everyone is involved in community affairs and there is a high level of co-operation, collaboration, and consensus at all levels of governance.	**EDUCATION** Everyone is engaged in lifelong learning - developing the self-esteem, knowledge, skills, and wisdom to live in ways that support personal, social, and environmental health.
USE OF RAW MATERIALS People use materials efficiently, producing little or no waste that cannot be reused, reprocessed, or reabsorbed by the Earth.	**ECONOMY** A diverse local economy supports the basic needs of everyone through satisfying, productive work, while making efficient use of materials and energy.	**SOCIAL EQUITY AND JUSTICE** We place a high value standard of equity and justice in the relationships among people and in their relationship with the natural world. People honor and uphold the well being of the whole community.

Title of Activity	**Joy and Sorrow Map**
Topic	Values, sustainable community, sustainability indicators, multiple perspectives
Audience	Elementary, middle, high school, adults
Time	45 minutes
Objectives	To help people express a personal response to their environment. To strengthen emotional attachment to the community, a sense of place that is critical in taking any action or willingness to act, to make the place better.
Process	Have students walk around in the selected area with keen senses and open mind individually or in small groups. Ask them to record their positive and negative feelings, observations on a map of the area. Ask your students to create their map reflecting their feelings about local social, economic and environmental issues, or their assessment of what needs are met and not met in the community. The personal response expressed in a Joy and Sorrow Map can be a written statement, a poem, a drawing or a photo mounted on or around the map of their environment. Joy and sorrow mapping is an emotional, subjective, artistic approach to assessing a location from environmental, social, economic perspectives. In 1995 over 1,000 Hungarian students and teachers created Joy and Sorrow Maps of their 40 communities & surrounding areas. These maps were collected and published by the Environmental Education Program of the Soros Foundation in Hungary. For further information please contact: Judit Vasarhelyi (editor) Independent Ecological Center, http://www.foek.hu/
Learning method	Observation, assessment, mapping, comparison
Materials	Map of the area for each small group or individual, pens Computer, internet access - optional
Source	Hungarian educators
Recommended reading	Community Mapping http://www.communitymap.org/ The Valley Quest http://www.cee-ane.org/elp/vquest.html Community Builder software http://csf.concord.org/esf/

Title of Activity	Landfill: Do We Need a Landfill Like This?
Topic	Solid waste management, building sustainable communities
Previous knowledge	Learning rules of waste management, what are the best suggestions for how to find solutions to waste issues, looking at European countries: Denmark, Switzerland, Germany and the reality of poor rural community that earn money from cheap landfills which don't meet standards.
Audience	Highs school, adults
Time	90 minutes /two lessons/
Objectives	Students will understand the interrelatedness of environmental, social and economic issues related to solid waste management.
Process	1. Participants playing roles: different members of this community. 2. They discuss this problem, explain advantages and disadvantages, and try to find solution and achieve consensus. See Handout for Process of Do we need a landfill like this?
Learning method	individual, in small groups: minimum 14 persons role playing, simulation, discussion, resolving the problem simulation game, discussion They work in pairs, every pair after reading his card of character, discuss behavior, attitudes, prepares own role.
Materials	markers, paper, name tag for each role A board (map) displaying Zagroda village with the landfill. Bundles of money in bill, 50-, 100-, 200-, 1000- bills. Set of cards /14 / with characters appear in this game: see handout Handout: Background to Do we need a landfill like this? Handout: Process of Do we need a landfill like this? Handout: Role Cards for Do we need a landfill like this? Handout: Description of the situation for Do we need a landfill like this?
Source	Ewa Smuk

Handout: Background to Do We Need a Landfill Like This?

An actual situation in our municipality occurred where we have an old landfill without proper insulation that for the last year has been used intensively for a larger area than just the local municipality. The lorries with tons of garbage are arriving from far-away cities. The landfill is being filled very quickly, local society is concerned that soon they themselves will have no place to put their garbage, and also that underground water could be contaminated. The local mayor proves that he has earned (as an authority) a lot of money from this landfill that allowed him to replace windows in the biggest schools in the municipality and this immensely limited the loss of heat. The landfill has to be filled very soon before we access the European Union. Society is protesting. First anonymous complaints appear as slogans on the roadside. Finally representatives of the local society ask for a special session of local council.

Real life data:

Capacity of that landfill – 4 years for residents of 1-2 communities; but only 1 year when it will be filled in like this time.

Cost to design and build that landfill – it was not expensive because there was a strip mine of sand and gravel on this area in the past.

Major expenses of operating a landfill? – salary for one full-time position, electricity expenses – 2,000 zl/month /$500/.

profits from receiving wastes from others communities – 100 000zl/month /$25,000/.

The residents are against allowing other communities to use the landfill because they see how quickly it is filled in and they realize that some day they will have no place for their wastes. Another reason is the continuous noise made by the trucks.

Handout: Process of Do We Need a Landfill Like This?

Introduction:

- This activity should be preceded by a lesson on waste management. Then the facilitator/teacher conducts a lesson prepared by students who present different solutions for waste management.
- A good activity is also an excursion to nearby landfill or company that utilize wastes.
- The facilitator should prepare a board and name tags for participants.
- The facilitator hands out the role cards and nametags.
- Everyone receives 1000,00 zlotych, administrator of a group of villages gets extra 10 000,00 zlotych, every mayor gets 20 000,00 zlotych.

First round:

Everyone deposits waste in the landfill. The supervisor charges a fee from everyone:

- 50,00 zlotych from private persons,
- 200,00 zlotych from firms like school, health center, shop, etc.
- 3 000,00-5 000,00 – from mayors.

During this time the Board of Community has a meeting and discusses the most urgent needs and how to allocate the money.

Second round:

Everyone deposits waste on the landfill. The supervisor charges a fee from everyone:

- 50,00 zlotych from private persons,
- 200,00 zlotych from firms like school, health center, shop, etc.
- 3 000,00-5 000,00 – from mayors.

Mr. Witek Ptasznik is looking at this landfill and meeting Mrs. Lucyna abka and Mr. Stefan Kargul. There is a meeting of the Board of Community and Mr. Stefan Kargul makes a motion that he has doubts about the landfill. He offers to call an extra meeting of all members of Board and invite Mr. Witek Ptasznik. But there is one problem, it is not easy to persuade everyone.

Third round:

Everyone deposits waste on the landfill. The supervisor charges a fee from everyone:

- 50,00 zlotych from private persons,
- 200,00 zlotych from firms like school, health center, shop, etc.
- 3 000,00-5 000,00 – from mayors.

There is an extra meeting of all members of the Board - there are all representatives but the mayors did not attend. The administrator of a group of villages presents a problem. Mr. Stefan Kargul explains his reservations and introduces invited guests, Mr. Witek Ptasznik and Mrs. Lucyna Zabka. The main goal of this meeting is create conception of waste management and trying to think about future. Now, discussion is starting.

Handout: Role Cards for Do We Need a Landfill Like This?

1. Narrator, read a text before first and second Meeting of Board of Community and also before Extra Meeting.
2. Supervisor of landfill, Mr. Jan Przydro charges a fee and gives it to the administrator of group of villages.
3. The administrator of group of villages, Mr. Mieczysł aw Wany, says he wants to have power on the Board of Community and in the future become on the same position, as the supervisor.
4. Manager of Health Center, Dr Zdrówko, needs money for an ambulance and necessary investments in the Center, he is one of Board's member and also uses the landfill.
5. Headmaster of school, Mrs. Janina Rybka, she needs money for new windows and extra insulation of building. She is member of Board and uses the landfill.
6. Mr. Stefan Kargul, farmer and Board member, initially enjoyed the income from the landfill because students will have insulated school building. He is the first person who noticed negative impact of landfill on water quality.

7. Owner of dry goods shop, Mr Przedsi biorski, member of Board, is interested in seeing the community prosper but he worries about lack of room in this landfill in the near future. He also uses landfill.
8. Organic farmers, Mr Lech and Mrs Marianna Kł osek, who produce organic bread, groats and flakes. They worry about threats related to the landfill. The next ecological threat could cause a loss of market for their products.
9. The teacher of nature studies at this school, Mr Lucyna abka runs extra ecological activities for interested students; she teaches students how to separate rubbish but at the beginning she does not notice problems connected with landfill. Mr Witek Ptasznik makes her aware of the scope of this problem. She tries to talk with headmaster of school.
10. Representative of non-government ecological organization "Earth Friends", Witek Ptasznik, is worrying about the condition of landfill, lack of insulation, lack of waste water removal, lack of monitoring, all of them could cause something like an "ecological bomb" - accumulation of dangerous gases, penetration of dangerous substances into the ground water. She talks with Mr Stefan Kargul, before the Second Meeting of Board to show him threats connected with excessive utilization of the landfill.
11. Mayor, Mr Jan Pół nocny
12. Mayor, Mr Lech Poł udniowy
13. Mayor, Mrs Zofia Wschodnia
14. Mayor Mrs Anna Zachodnia

11-12-13-14: They are the heads of four towns in the region, they use the landfill in Zagroda, every month they deliver 1-4 tons of waste.

Handout: Description of the Situation for Do We Need a Landfill Like This?

before first (1) and second meeting of Board (2) and before extra session of Board (3):

1. In the small village, Zagroda there is an exploration hole from a gravel mine that for some years has been used as a landfill. It is old type of landfill, with lack of insulation, lack of monitoring, and lack of necessary protections. Community members deposite their waste in this place. Because the community is not rich, the administrator of the villages decided to sell places on this landfill for towns to use. This is cheaper for the towns then using the modern, professional waste treatment plant. Now they pay 2 000,00 zlotych per ton of waste. There is a First Meeting of Board of Community and discussion about how to spend the money.
2. Second Meeting of Board:
   There are doubts announced by Mr Stefan Kargul (farmer) after a conversation with Witek Ptasznik.
3. Open, extra meeting of all members of Board; an administrator of the groups of villages introduces the problem, Mr Stefan Kargul presents his doubts, and fierce discussion starts.....

Title of Activity	Local & Global Economy
Topic	Environment protection in our household
Audience	Middle, High school, adults
Time	2 x 45 minutes
Objectives	Participants realize from what sources they satisfy their needs; they are given an alternative to their unsustainable consumption habits
Process	1. Collection: participants draw on a big sheet of paper (or select from given pictures) what they use on an average day in a certain area (e.g. food, clothes, transport) 2. Collected pictures are grouped according to their places of origin: what is produced locally, what is brought here from great distances for us to consume. (Groups can be: our country/foreign country, our county/other county, our settlement/other settlement, our continent/other continent. All groupings can be instructive.) Grouped pictures are posted on wall or blackboard. What about products assembled in spare parts produced in different places, often in far-away countries? Why do we have products like these? Do we need them, or do producers need them? What is the monetary, environmental, and social costs of these "chimera" products? 3. Competition (in groups): replace foreign products with local ones. Winner finds the most local substitutes for most foreign products in a given time. 4. Summarize, which foreign products we were able to replace with local ones.

	5. Homework: Can the rest be replaced or can we live without them?
Learning method	Group work, individual work, contest, discussion
Materials	Drawing instruments (or collected pictures), paper sheets, scissors, blue tack
Source	Varga Attila
Recommended reading	Selby, D., Pike, G.: Global Teacher, Global Learner (1990): Ideas for teaching / learning about spatial globality / interdependence page 8-12

Title of Activity	**Looking at the Community through Sustainable Eyeglasses**
Topic	Helping communities to establish sustainable development goals.
Audience	Middle and high school, adults
Time	45 minutes
Objectives	To help to see results of local events related to economic, environmental and social aspects.
Process	- Divide participants into groups of 5-7. - Every group should define one important community event, (sporting event, festival, parade, etc.) For example: there are some of annual activities in Plock powiat: harvest home in Mala Wies (gmina), Chemist's Day in Plock, Garlands on the Vistula river bank, Potato Holiday in Bulkowo, Earth Day in Slubice, etc. - Develop a concept map of this activity. Think how this activity affects the local environment, local society and local economy. Then write primary factors on the paper and use linking words, like: support, generates, leads to, etc. - Now, ask participants to define secondary factors and so on. - Ask them to write on the separate sheet of paper all global processes that could affect this activity or the activity affects them. They can do it in the chart, comparing local and global factors and processes. - Start discussion: what trends can they recognize? Are they positive or negative? What can we do to prevent the negative trends?
Learning method	in pair, concept mapping
Materials	Paper, pen
Source	Adapted with permission from ESD Toolkit (http:www.esdtoolkit.org) by Witold Lenart

Title of Activity	**Meadow and Lawn: What is the Difference?**
Topic	Diversity, Biodiversity
Audience	Grade 1-3
Time	45 minutes
Objectives	- develop critical thinking about human behavior toward the environment - develop creative sensibility - develop observation skills for life symptoms - develop respect for all life symptoms - spatial orientation - estimate objects size
Process	Outdoor: Start a conversation: What is a meadow and what is her use? Search for inhabitants – "users" of meadow. Residents: insects, small rodents like mice, earthworms, frogs, moles, etc. Visitors: hare, wolf, birds, deer, and domestic animals. Learn about their habitats. Have all inhabitants got an equal right to use the meadow?
	Classroom
	Students work in several groups and use various objects and materials to build a model of meadow according to own ideas.
	Discussion: Has a meadow got a chance to survive without some of her important inhabitants? For example: lack of earthworms: soil is compacted, no

	soil aeration. - Who is the landlord of the meadow?
	- What is a difference between a meadow and a lawn? E.g. Meadow: biodiversity, sustained in long-term, natural palette of colors, nice smell of herbs, real nature act , quiet pulsating life , harmony, big seasonal changes. Lawn: monotony, necessity of sustaining life by watering, artificial shapes and objects, unnatural or no smell and color, artificial: developed by human-being, beautiful, improve people's mood living in cities, small seasonal changes
	- Do you prefer a meadow or a lawn? Why?
	- What associations do you have with meadow and lawn?
Learning method	discussion, observation, outdoor and classroom activities
Materials	objects, some elements from school equipment that could simulate /model a meadow and her inhabitants, like: pieces of material, pieces of texture, dry plants and rods, pebble stones, pieces of foil, paper, string, etc.
Source	Witold Lenart

Title of Activity	**Our Needs And Wants (Central European Reality)**
Topic	Introduction to sustainable development: meeting the needs of the current and future generations
Audience	from Grade 7 to adults
Time	30 minutes
Objectives	To realize: our own values and attitudes, individual needs and community needs and the difference between needs and wants
Process	1. Preparation: before this activity duplicate the cards on the Handout and cut them to make a set of cards for each pair of participants. Place each set in an envelope. 2. Divide participants into teams of two. Give each pair a set of cards and ask them to sort the cards into two categories: the things they "want" and the things they "need". 3. After sorting, discuss how they defined "needs" and "wants" as their sorted their cards. Ask if they had any problems to make decision. How they reach consensus? 4. Choose a few examples of the cards and ask participants in which pile they put them. Discuss why some people have different ideas about what is a "need". 5. Discuss the difference between need and want, and the subjectivity of the difference. E.g. Needs are the goods and services that people consume in order to satisfy basic physical needs (food, clean water, air, housing) and provide a satisfying quality of life (good health, education, family, etc.). Wants are the goods and services that people consume to satisfy their perceptions of what they "need" to be accepted by others (fashion, cosmetics, sporty car, etc) and relaxed and comfortable (new furniture, bigger house, abroad holiday, etc). 6. Ask participants to sort their cards into two categories: the things they need to survive (food, air, water, space) and the second: strategies for getting those things, like transport, money, etc. 7. Facilitate a discussion: - How would they feel if they had the things they need but not any things they wanted? The general definition of sustainability is meeting the needs, and providing the same opportunity for the future generations. Would this make you happy, without the "wants"? - What do we need to be happy? Is it the same for everyone? - Are the individual needs different from community needs? or not? If yes, why? - Thinking about our past, 20 years ago, were our needs and wants the same? Why yes?, why not? - Thinking about our country, Poland what is the current trend of meeting our needs and our wants?

Learning method	Discussion, in pair
Materials	one set of cards for each pair of participants (see handout), envelopes, piece of paper/per pair , pen/pencil/per pair Handout: Cards, Our Needs And Wants
Source	Asia Imiela, Plock, Poland adopted from EE Toolbox – Defining Environmental Education, 1994.

Handout: Cards, Our Needs And Wants (Central European Reality)

MUSIC	**FAMILY**	**SHOPS**
TAXES	**HOSPITAL**	**TELEVISION**
FRIENDS	**MOBILE PHONE**	**WATER**
ELECTRICITY	**VEGETABLES**	**BREAD**
MONEY	**FRUIT**	**MEDICINE**
BICYCLE	**NEW CAR**	**CANDIES**
SUN	**JOB**	**PHONE**
SECURITY	**POLICE**	**EGGS**
CHURCH	**FASHION CLOTHES**	**HOUSE WITH GARDEN**
COMPUTER	**HEALTH**	**QUIET**
AIR	**HOME**	**SCHOOL**
MOVIES	**COSMETICS**	**PARK**
JEWERLY	**FAMILY**	**SPACE**
HOLIDAY ABROAD	**ACCESS TO INTERNET**	**EDUCATION**

Title of Activity	**Orange**
Topic	Different approaches to learning: direct (hands-on), symbolic, conceptual
Audience	Middle, high school, adults
Time	20 minutes
Objectives	To realize the importance of learning by direct contact with the environment, using all senses.
Process last round	1. Group of 3 or 4 receives a real orange as a object for deep analysis. 2. People based on their perceptions and observations list all characteristic features of this orange on a sheet of paper. 3. In the next round, they receive artificial /plastic/ orange and from the list had made in the previous step they should to cross out those features that they can not establish through this analyze. 4. In the next round participants receive a picture of orange. They should cross out all features from the first list that they cannot establish through this analysis. 5. The facilitator shows participants the word: "orange" and asks them to cross out successive features from this list. 6. Having finished this activity, participants should establish what features stay on the initial list and discuss their results.
Learning method	Individual, whole group Description, comparison
Materials	A real orange, a plastic orange, picture of an orange paper and pencil for each participants
Source	Asia Imiela

Title of Activity	Organic Farming versus Large Scale, Industrial Agriculture
Topic	Production planning, organic farming
Audience	High school
Time	3 x 45 min + farm visit (1/2-1 day)
Objectives	Students learn about the advantages and drawbacks of organic farming, recognizing its importance
Process	Previous organization: prepare visit to a neighboring organic farm, collecting information Introducing lesson: Has the gray cattle any reason for existence? Discussion based on attached Handout. Characteristics of organic farming by URLs. Lesson for preparation: sharing information about the farm we will visit; creating interview questions. Groups work out different interview topics, E.g. production, marketing, economics, motives, environmental aspects. Farm visit. Group work, "revolving stage": 1. Interview 2. Participation in actual work 3. Making a sketch of site 4. Notes on observed technologies (open-air keeping), mulching, plant joining Sharing, conclusion: groups share, discuss and evaluate experiences; visioning: prospects for organic farming in 5, 10, 50 years
Learning method	Group work, discussion
Materials	Hard board for writing, copies of questionnaires Handout, Organic Farming: You can do it otherwise!
Source	Ortmanne Ajkai Adrienne

Handout, Organic Farming
You can do it otherwise!

On Earth Day 2001 "Pro Natura" Prize was awarded to Dezs Szomor by the Minister of Environment Protection.

In the middle of 80's Hungarian grey cattle herds became endangered: state support decreased, so animals were sent to slaughter-houses. Based on my previous experiences I calculated that they can be kept without financial loss: they have not have much meat, but they are unassuming, needing less then more intensive breeds. It 's not a great business, but not worse than keeping other animals.

I bought up 500-600 cattle before slaughtering and obtained pastures for them, partly protected areas. Some nature conservationists said that cattle are harmful because they stamp out nests of protected birds – others said just the opposite. I am no conservationist expert, but I remember that in my childhood thousands of cattle grazed here, and **great bustards*** were even hunted, but their population did not decrease significantly. Later there was far less grazing cattle but the number of great bustards decreased. After some years' observation we can prove that grazing animals are an important links in the chain of biological circle.

You have mentioned earlier that man should not be motivated always by making profit, but such a big farm has to have strong financial grounds: people, energy, machines, water all have to be paid for without a hitch. How can you integrate nature protection?

I think that not only profitable things are worth doing. I wanted to do something to help this robbed-out, overexploited nature. I know I will not solve nature conservation's problems, but if I do everything to favour birds living here and make my farm self-sustaining (it need not bring much profit) I can contribute to survival of these birds.

Nature conservation sometimes can mean serious looses. One year we did not cut alfalfa, because great bustards nested in. So we lost 10 000 kg alfalfa seed, which is a lot of money. But in this way some more great bustard chicken survived (according to Hungarian nature protection law a great bustard is worth 1 million Ft (>$ 3,500).

If my farm sustains, it is worth doing it.

(Based on an interview of Tamás Péchy, published in a Hungarian ornithological magazine "Madártávlat" 2001/4)

*Great bustard: Big, vary bird of open grasslands, called also "Hungarian ostrich"; endangered, its biggest populations live in Hungarian national parks.

Questions:

- Can big money be made by keeping grey cattle? How can they be kept without financial loss?
- In many cases nature protection means a financial loss for farmers or businessmen. Who should compensate them (should anybody)? Who wins?
- Look for cases where nature can be protected without spending (or losing) much money!
- What other than financial reasons can explain certain activities? List some things you (or your parents) do without earning money by it! Why do you (they) do it?
- May cattle be allowed to graze in protected areas? Why?
- Do you know a farmer who thinks like Dezso Szomor?

Title of Activity	**Parable about the Sower**
Topic	building future scenarios for children related with developing Christian values
Background	Building scenarios with small children can be start from simple but wealthy in meaning of parable about the sower. These activities help children understand concept of building scenarios, meaning of our attitudes in developing them but also this activity brings closer in innovative way Christian values.
Audience	Kindergarten, elementary children /6-8 years old/, preschool and grades 1 and 2
Time	45 – 90 minutes
Objectives	To introduce students to think about the future
Process	Handout, Parable
Learning method	work in groups, common introduction and summary talking, telling stories, discussion, presentation
Materials	Gospel according to St. Mathew, 13,4-8; samples of different soils – good soils in two boxes, sand from road, stone; large sheet of paper, one for each group, crayons; string and paper fasteners for versissage. Handout, Parable
Source	Ewa Smuk Stratenwerth
Recommended reading	Center for a Sustainable Future – Scenario Building http://www.csf.org

Handout, Parable

Introduction (15-30 minutes)

Children sit in the circle, a teacher reads or tells story about Sower from Gospel according to St. Mathew. Then, he draws on the blackboard two crossing axis (X and Y). X axis means quality of soil, with extremes from weak to good one. A teacher asks children What does it mean: good and bad soil? Can you give some examples? They look at some samples of soil, check soil structure by their hand. Y axis means our care, from very little to more. Teacher asks children, What does it mean to worry? How does your mother worry about you? How do we worry about plants?

Children's work (20-40 minutes):
Now we decide where we should set these four scenarios on our scheme – future of the seed that was shown in Gospel. Teacher divides children into groups of 4 through count: spring, summer, fall, winter. Group of 4 means one year that includes four seasons:

- "fall" draws scenario in left upper corner, where a seed falls down on stone ground, it send out roots but has to die, because of lack of good soil.
- "winter" draws scenario in left lower corner, where a seed falls down on the road and birds eat it.
- "spring" draws scenario in right lower corner where a seed falls down into good soil but weeds and thorns drown it out.
- "summer" draws scenario in right upper corner where it gives hundredfold harvest.

Summary (10-20 minutes):
A teacher arranges small display, children walking around and looking at their pictures. Then they again sit in the circle to summary this activity. They talk with teacher and discuss "what do we need to reach hundredfold harvest?" "What could be this seed that is described in parable? Not only a seed? but also..... what?

Title of Activity	**Questionnaire: How sustainable is our community? (example: Montpelier, Vermont, USA)**
Topic	sustainable communities, sustainability indicators
Audience	High school, adults
Time	1 week long project
Objectives	To realize and respect different views of what is important. To learn about the sustainability of the local community.
Process	- *How do we know our community is sustainable?* - *What indicators can we use?* Students design a questionnaire. (2x45 minutes) Students interview community members or mail/leave at strategic places (e.g. library, book store, café, dentist office, hair salon) the questionnaire. (45 minutes – several days) Students compile, interpret and discuss data. (several hours) Whole group discussion about the findings and next steps.
Learning method	Interview, data processing, data interpretation
Materials	Pen, notepad Handout: Questionnaire: How sustainable is our community?
Source	Original, team of Hungarian and Polish educators
Recommended reading	Sustainable Measures http://www.sustainablemeasures.com/ Benedict Hren: Pathways to Community Sustainability, Monitoring Community Sustainability, Izaak Walton League of America, 1998.

Handout: Questionnaire: How Sustainable is our Community?

Example: The questionnaire developed by Polish and Hungarian educators for Montpelier, Vermont, USA

QUESTIONNAIRE Age…..M/F

1. Sustainability Indicator: Quality of Life

American Dream For Vermont

1. What would you say are the largest single aspects of the Vermont dream today?
(number in order of your personal priority – 1=least important, 5=most important)

healthy, unpolluted environment	1 2 3 4 5
a lot of friends	1 2 3 4 5
secure family	1 2 3 4 5
secure home & surroundings	1 2 3 4 5
good health	1 2 3 4 5
well-paid job	1 2 3 4 5
big house with swimming pool	1 2 3 4 5

Neighborhood

1. Do you have neighbors? Yes/No
   If yes, how well do you know them?
   (Never met them!) 1 2 3 4 5 (Really well!)
2. Would you leave your keys with them while you are away? Yes/No
3. How many of your closest neighbors do you know by name? .....
4. Is there a Neighborhood Association? Yes/No
5. Do you have a local newspaper? Yes/No

Family Life

1. How many people are eating and sleeping in your house?
   1 2 3 4 5 more?
2. What do you think is the average number of children in:
   Vermont ..... , USA ...., Japan ...., Poland ....., Hungary ..... ?

Traveling Habits

1. Where do you spend your holiday?
..... at home, ... other city of the state, ….other state, ... other country, ... other continent.
2. How often do you go to abroad?
..... never, ... rarely, ... every year, ... every month, ... more frequently
3. Where have you ever been abroad?
.....

2. Sustainability Indicator: Human Settlement

Home

1. How long do you think your house will last?
..... for ever, ... at least 100 years, ... no more than 10, ... rebuild every year.
   Why? .....
2. How eco-friendly is your house?
   (not at all) 1 2 3 4 5 (completely)

Are energy saving lights bulbs available in your community?
   (No, impossible to find) 1 2 3 4 5 (Yes, in all the shops)

4. Do you use air conditioning? Yes/No
5. How well is your house connected? Are you on:
..... mains sewage, ... mains gas, ... mains water, ...mains electricity, ... e-mail

Settlement Planning

1. How would describe the particular successes or problems with your area?
   dirty and untidy 1 2 3 4 5 clean and tidy
   impossible to get anywhere 1 2 3 4 5 easy to get around
   unemployment lines everywhere 1 2 3 4 5 no trouble finding jobs
   In the last 5 years, has it:
   ..... got better, ... stayed the same, ... got worse, ... got much worse
2. Has your city/town got enough parks, green space and playgrounds?
   ..... Yes!, ... plenty, ... enough, ... none at all, ... No!
   In the last 5 years, has it:
   .....gotten better, ...stayed the same, ... gotten worse, ... got much worse
3. How would describe your system of public transport?
   .....excellent, ...pretty good, ...fair, ... poor, ...awful, ...complete disaster
   In the 5 years, has it:
   .....got better, ...stayed the same, ... got worse, ... got much worse

3. Sustainability Indicator: Consumption

Driving Force

What makes you buy something?
(1=most important; 5=least important)

advertising	1 2 3 4 5
low prices & constant „sales"	1 2 3 4 5
low interest credit	1 2 3 4 5
low purchase taxes	1 2 3 4 5
product nedded to stay alive	1 2 3 4 5
desire to keep up appearances	1 2 3 4 5

Consumption Footprints

1. How long do you have to go to buy your staple food (loaf of bread, grain, etc.)?
   .....less than 1 km, ... 1-5 km, ... 5-15 km, ... more than 15 km
2. Where does your daily food come from?
   ..... Vermont, ... North East, ...US, ... International
3. Does your family use (1 = never, 5 = always):

Polysterene / styrofoam packaging	1 2 3 4 5
plastic packaging	1 2 3 4 5
paper packaging	1 2 3 4 5
re-useable (cloth, etc.)	1 2 3 4 5

Advertisements

1. Does advertising affect what you buy?
   totally 1 2 3 4 5 not at all
2. Is there any eco-labeling of goods to show if they are environmentally friendly?
   If yes, do you trust the information?
   totally 1 2 3 4 5 not at all
   If not, should there be?
   definitely 1 2 3 4 5 it is not necessary

4. Sustainability Indicator: Waste & Pollution

Garbage

1. Is there garbage in your street?
   (absolutely everywhere!) 1 2 3 4 5 (none at all)
2. Are there any places provided by the local authority for you to put litter?
   (none at all!) 1 2 3 4 5 (on every street corner!)
3. Are there penalties for dropping trash/litter? Yes/No
4. Where does your garbage go?
   ..... landfill, ... burned, ... recycled, ... river

5. Sustainability Indicator: Economy & Employment

1. Is it easy to find a job in your community? Yes/No
   If no, why? .....
   .....
2 .Do most people work close to where they live?
   (miles away!) 1 2 3 4 5 (on the doorstep!)
3. How much of your family budget do you spend on food?
   ..... 30-50%, ... 50-70%, ... 70-90%

Title of Activity	**School – Community Partnership: Sustainable Transportation Projects**
Topic	School – community partnership, learning to learn, sustainable communities
Audience	Middle and high-school students
Time	Various, depends on the project
Objectives	To provide students with active, cooperative, experiential learning opportunities about sustainability.
Process	The following small projects are about transportation but you can use this approach in other areas of school – community partnership. Contact the Hungarian partners for the full description of each project. Information Service, Bike-shop, Bike-path, Sidewalk Map, Safe Trip to School, City Rally, Traffic Calming, Speed Watch, Streets with and without cars, Sound-game, History of transportation in our neighborhood, Recreation Map, Come with me!, Environmentally responsible outing, From the producer to the store shelves, Why do people have cars? Transportation in the future
Learning method	Individual, small group, inter-generational, project method, field studies, artistic
Materials	Various, depends on the project
Source	Volenszki Ivett

Title of Activity	**Stone soup**
Topic	How can we build a good community?
Audience	Elementary, Middle, High school, adults
Time	45 minutes
Objectives	o To motivate and engage students to discuss complex issues as a community. o To builds vocabulary about community in an ESL (English as second language) context o To help students realize the importance and challenges of community development.
Process	Read and discuss the story together. Role play the story: use real or mockup ingredients. Discuss the moral of the story. Suggested questions: What kind of people lived in the village? Characterize the soldier. How did the soldier tease out the villagers' contribution? Finish the story with the following situation: a) the villagers realized their lack of cooperation b) the soldier presents the villagers the stone c) the soldier stays in the village for good.
Learning method	Reading, Role playing, Discussion. Small group and frontal work.
Materials	Paper, pens, real or mock up ingredients Handout: Stone soup story
Source	Original, Agnes Gilly, Ilona Doczi
Recommended reading	The American version of the story: Stone Soup by Marcia Brown, Aladdin Paperbacks edition, 1997

Handout: Stone soup story

Stone soup

Hungarian folk tale

Once upon a time there lived a poor soldier coming back from the war. He went from village to village, poor and hungry, but nobody offered him any warm soup or a piece of bread. He wanted to go into alot of houses but dogs were aware of him. People pretended to be so poor, not having anything.
While he was wandering, he thought: "You just wait, in the next house I will make some delicious soup." He picked up a stone and went into the house in the center of the village. There lived an old woman.

-Good morning, grandma!
-Good morning, my brave soldier. How are you??
-I'm fine but very hungry and would like something to eat.
-Oh, I'd give you something if I had any. But I'm also so poor like a church mouse. I've got nothing to eat and my pantry is completely empty.
-Well,-says the soldier- I'm not so poor because I've got a stone in my pocket, look at it. I would make a soup with it if I had a pot and stove.
-Well, I can give you one because I've got lots of pots. The good soldier washed the stone well and put it into the pot. The old woman made a fire, the soldier poured some water into the pot and stirred the soup. The old lady watched him carefully. The soldier even tasted the soup and said:
-It's good but it needs a little salt.
-I'll bring you some, said the old woman.
The soldier put the salt into the soup and said:
-If you had a spoonful of fat it would be tastier.
-I'll bring you some, said the old woman.
The soldier put the fat into the soup and said:
-If you had some sausages it would be even more delicious.
-I'll bring you some, said the old woman.
The soldier put the sausages into the soup and said:
-If you had some potatoes and carrots it would be even more delicious.
-I'll bring you some, said the old woman proudly.
The soldier put them in and gave a spoonful to the old woman. She tasted and said:
-I could never imagine that anybody could make such a good meal with a piece of stone. The soup was ready so they set down and ate the soup. The old woman was very surprised and when they ate enough she turned to the soldier:
-I often have nothing for cooking. My dear, wouldn't you sell me that stone?
-I definitely would, said the soldier.
-It costs one hundred forints, he said with a smile.
The old woman gave him the money very quickly and she folded the stone into a dish-cloth.

And our soldier said goodbye and went away with his money. He was in a hurry because he was afraid that the old woman would change her mind. He was happy and full so he walked till the evening when he found another old woman who didn't know how to make stone soup.

Title of Activity	**Sustainability: Introduction**
Topic	Sustainable development
Audience	Middle, high school, adults
Time	45 minutes or more
Objectives	To help students discover the connections among the three aspects of sustainable development: environment, economy, and society. To encourage students to think critically about "development".
Process	1. There is a set of 24 cards: 8 red related to economy, 8 green related to 8 environment and yellow related to society. 2. Each card contains certain concept related to each of these three categories. ***Red Cards***: food; row materials; local economy; global economy; markets; jobs; tourism; seasonal work; ***Green Cards:*** air quality; water quality; soil quality; land-use; waste; habitats; pollutions; natural resources; ***Yellow Cards***: security; housing; medical care; education; politics; violence; poverty; culture 3. Facilitator divides participants into groups of 3-4. Each group receives one set of cards. 4. There are three or four rounds. In every round, one person chooses from this set one red, one yellow and one green card and the whole group tries to find connections between these concepts. They develop short real story based on their knowledge and write it on paper. 5. Next round – the same procedure, but another person chooses the three cards and so on. 6. If someone has problems finding a connection, he can exchange the card for another from the same category. 7. At the end all groups present their results. 8. The facilitator could encourage participants to create their own concepts that are related to environment, economy or society. Suggested questions for follow-up whole group discussion: • What are the images you have of "development"? You can make drawings, jot down words, feelings, make gestures, faces, etc. • What is the goal of "international development"? What are the major organizations of international development (international, national etc.)? When will international development go out of business? • How does the media portray developed, developing and under-developed nations? What are the images? What are the underlying values? What is the cost (social, environmental, economic) of the traditional concept of development / progress? • What images do you have of sustainable development?
Learning method	Individual, small group, reflection, arguing, reaching consensus
Materials	Cards described above, photocopied for each group
Source	Adaptation, based on Roslayn McKeown, ESD Toolkit (www.esdtoolkit.org)
Recommended reading	ESD Toolkit http:// www.esdtoolkit.org Introduction to Sustainable Development http://sdgateway.net/introsd/ Sustainable development timeline http://iisd1.iisd.ca/timeline/ UN Sustainable Development Site http://www.un.org/esa/sustdev/ UN Commission on Sustainable Development (CSD) http://www.iisd.ca/csd/csdintro.html

Title of Activity	Sustainable Communities: Definitions
Topic	Sustainable communities
Audience	High school students, adults
Time	30 minutes
Objectives	To explore the concept of community and start the discussion on what makes a community sustainable.
Process	Participants are divided into four small groups. Facilitator asks "Who likes cooking?" The facilitator throws a plastic egg to the first volunteer and ask her /him to list the essential ingredients of her / his favorite dish. Two other participants are asked to do the same. Participants note there are no more then 4-6 essential ingredients to make most of the enjoyable dishes. Small groups develop their own list of essential ingredients of a community. Small groups present their lists. Small groups continue working in order to find out what makes their community sustainable. Whole group discussion seeks for attributes of sustainable communities. Participants are referred to the definitions of the Handout. When participants disagree on an attribute, the activity entitled "Tackling a Statement" can be introduced to tackle controversy in a peaceful and constructive way.
Learning method	individual, small and whole group
Materials	One large sheet of paper for each group. Felt tip pens. Handout, Sustainable Communities: Definitions
Source	Megan Camp
Recommended reading	"Tackling a Statement" can be found in Pike, G. and Selby, D., 1988 "Global Teacher, Global Learner", Hodder and Stoughton, page 137.

Handout, Sustainable Communities: Definitions

"The term "sustainable community" describes a community that actively engages residents in planning and decision making and provides a human-scale design, ethnic diversity, economic opportunities, and an infrastructure that both runs efficiently and does not waste energy and resources. A sustainable city has a diversified economy. Its businesses and industries show a concern for the health of the community in their environmental and employment practices."
World Resources Institute, USA

"What brings together the members of any community may be common locality, common aspirations, common interests or problems or initiatives — but at heart, a true community is one in which difficulties, hopes, and challenges are shared."
Institute for Sustainable Communities, Montpelier, Vermont, USA

"Sustainable development can be defined as development that delivers basic environmental, social, and economic services to all residents of a community without threatening the viability of the natural, built, and social systems."
International Council for Local Environmental Initiatives, Canada

"A sustainable community uses its resources to meet current needs while ensuring that adequate resources are available for future generations. It seeks improved public health and a better quality of life for all its residents by limiting waste, preventing pollution, maximizing conservation and promoting efficiency, and developing local resources to revitalize the local economy."
Concern, Inc., USA

"Sustainable communities are those communities which support the dignity of families and individuals and in which the quality of life is renewed and enhanced within the context of responsible environmental practice through collective decision-making and action. Sustainable communities depend upon the existence of a social infrastructure which provides for the basic needs of shelter, jobs/income, health, education and social support."
Preliminary definition by working group of the
President's Council on Sustainable Development

"Sustainable urban development in the context of human settlements . . . means the continuing maintenance, adaptation, renewal, and development of a city's physical structure and systems and its economic base in such a way as to enable it to provide a satisfactory human environment with minimal demands on resources and minimal adverse effects on the natural environment."
Richard Stren, et al. eds. in Sustainable Cities:
Urbanization and the Environment in International Perspective.
Westview Press, Boulder, Co, USA

"The ability of a community to utilize its natural, human, and technological resources to ensure that all members of present and future generations can attain a high degree of health and well-being, economic security, and a say in shaping their future while maintaining the integrity of the ecological systems on which all life and production depends."
Anthony Cortese, Second Nature, USA

"Sustainable communities are collections of individuals that hold several important things in common: their sense of place or locality; their social religious, and governance system; and they derive from both their individual interactions and their surrounding environment, the power to adapt to changing conditions and remain intact for multiple generations. Most individuals who belong to communities of this type are very loyal and respectful of their historical traditions and derive personal satisfaction and happiness from them."
Larry Peterson, Director, Florida Sustainable Communities Network, Florida, USA

" In a community that sustains itself, people face issues and seek solutions together, building on commonalties while accounting for each other's differences. Sustainable communities are defined as towns and cities that have taken steps to remain healthy over the long term. Sustainable communities have a strong sense of place. They have a vision that is embraced and actively promoted by all of the key sectors of society, including businesses, disadvantaged groups, environmentalists, civic associations, government agencies, and religious organizations. They are places that build on their assets and dare to be innovative. These communities value healthy ecosystems, use resources efficiently, and actively seek to retain and enhance a locally based economy. There is a pervasive volunteer spirit that is rewarded by concrete results. Partnerships between and among government, the business sector, and nonprofit organizations are common. Public debate in these communities is engaging, inclusive, and constructive. Unlike traditional community development approaches, sustainability strategies emphasize: the whole community (instead of just disadvantaged neighborhoods); ecosystem protection; meaningful and broad-based citizen participation; and economic self-reliance."
Institute for Sustainable Communities, Montpelier, Vermont, USA

Title of Activity	Sustainable Meal
Topic	Healthy food, sustainability criteria
Audience	No age limit
Time	30 minutes
Objectives	To learn about criteria of sustainability and how we can use these to make simple, nice meals. To make and enjoy a sustainable salad.
Process	We are preparing a recipe for a healthy and sustainable dish that meets as many sustainability criteria as possible. What criteria do we want to meet? E.g. locally grown row material low energy-absorptiveness little demand on water little or no agrochemical requirements high fertility and certain surpluses of local row material simple processing (e.g. only washed to remove soil) possibility to use without special treatment possibility to store in natural condition little amount of waste is generated you can compost or recycle the waste Culinary criteria: high nutrition value good taste, good look you can make a lot of different dishes What kind of meal would meet these criteria? The easiest one is a salad, made of raw vegetables and fruits without thermal treatment and without meat addition. Let's make a Polish salad! Ingredients: asparagus from Konin pumpkin from Dobrzy Brussels sprouts, peer-trees and walnut from Mlodzieszyn (Sochaczew powiat) The prices of these vegetables are less than a bus ticket in Warsaw! leek is everywhere except the Sochaczew region salt from Klodawa pepper from the meadows close to the Bzura river Cut and mix all essential components. Rings of Brussels sprouts and leek create chains like those on the Christmas tree. It is very cheap, healthy and tasty and what is more, it is local. Enjoy!
Learning method	Experiential, individual, whole group
Materials	Ingredients listed above, knife, bowls, utensils, map
Source	Witold Lenart

Title of Activity	Sustainable School: What does it Look Like?
Topic	Whole school approach to sustainability.
Previous knowledge needed	Needs of current and future generations, sustainable development / management
Audience	Middle and high school, parents
Time	60 minutes
Objectives	To start a whole-school approach to education for sustainability. To raise awareness about sustainability among students, parents, school staff and community members. To make the school better.

Process	Discuss with students, parents and school staff, and community members: Whose needs does the school serve? What are these needs? Make a list and cluster the suggested needs into different categories (social, environmental, economic, political)? Are these needs met? Develop sustainability indicators for the school. Check international recommendations for environmentally friendly and economically viable organization management: ISO 14001/EMAS. Go around the school and check the sustainability of the school by your list of indicators. Repeat #4 twice a year.
Learning method	Discussion, observation, data collection and interpretation
Materials	See Recommendations for a sustainable school in the Hungarian PIE Guidebook.
Source	Original, Agnes Vekony-Gilly and Ilona Doczi
Recommended reading	European Network of Eco-schools (based on ISO14001/EMAS) http://www.eco-schools.org/html/about.htm Hungarian Ecoschools: http://www.okoiskola.hu/background.html ISO 14001/EMAS self-paced eCourses (free): http://www.iges.net/ecourses.htm Living Machine http://www.livingmachines.com/htm/home.htm Building a Classroom Living Machine: http://www.oceanarks.org/Education/FramerE.html Valley Quest: http://www.cee-ane.org/elp/vquest.html http://www.vitalcommunities.org/pages/vcquest.htm

Title of Activity	**Teams and Words**
Topic	Team building
Audience	High schools, adults
Time	15 minutes
Objectives	Ice-breaker To link individual interest with team development. reflecting, team-building activity
Process	Each participant write a VERB, a NOUN, and an ADJECTIVE on separate post-its. The post-its are pasted on a flipchart randomly. The group collectively arranges the post-its to make a poem. Additional words are allowed. Invite participants to do this activity twice: at the beginning and at the end of a team building activity. Do not tell the participants that they will do the same in the end. Compare the two poems at the end: how do they reflect the way the team has developed? How many and which words indicate team development?
Learning method	Individual and whole team
Materials	Post-its (three different colors), pens, large sheet of paper of a large surface
Source	Deri Andrea

Sample: Poems by Polish and Hungarian educators

First day of a ten day study tour

Incredible excitement to fly
To meet nice family people
Exciting to discover deer bike coffee
Read deep to work
Look forward to unique friends
Children love nature

Last day of a ten day study tour

Love friends!
It's fun.
So, do diverse connections
To work on natural and useful challenges.
Don't forget to reflect on family because they also want to participate in incredible "holiday of a lifetime" = fieldtrip.

Title of Activity	**Time Management**
Topic	Time as a resource; Sustainable resource management;
Previous knowledge needed	rhythm in nature, rhythm in our life, in our daily routines
Audience	Middle, High school
Time	45 minutes
Objectives	To raise students' awareness of the importance of planning their time (daily, weekly, yearly, longer) and respect other's time management preference.
Process	Ideas: Discussion: Is time really a resource? How many inventions can you list that meant to save time? Ask students to write an essay on how they would organize their life if they knew they were going to live for 300 years. What would they do differently from their current practice? Ask students to fill out the Handout individually and average the data for the whole group. Discuss their findings. Compare your group data with data of the recommended reading. How many hours / days / years do we have in our life for making a difference? Remember, you need to learn some skills, and gain some knowledge. "Money is valuable only because you can save/buy time to do whatever you want." Do you agree? How is our time management related to sustainable development?
Learning method	Individual, small group
Materials	Handout for time management
Source	Original, Zsolt Gilly
Recommended reading	Csikszentmihalyi, M. (1997): Finding Flow, The Psychology of Engagement with Everyday Life, BasicBooks, HarperCollings Publishers, USA

Handout for Time Management

	Individual hour / day	**Whole group hour / day**
Eating		
Sleeping		
Transportation		
Studying		
Recreation, resting		
Playing, hobby		
Grooming, dressing etc.		

Title of Activity	Traditional Cserkútians and the New-comers
Topic	Developing a sustainable community Citizenship skills, problems of urbanization, local sustainability
Audience	High school, adults
Time	3x45 min
Objectives	Participants will be able to • recognize and analyze local problems; • explore and evaluate possible choices; • create a plan for problem-solving; • prepare themselves for citizen roles
Previous knowledge	- principles of sustainability - theoretical base of project planning (project design and management
Process	1. Talking about who lives where, how the local community works there 2. Refreshing knowledge about project planning together with help of Handout 2; filling out „Examples" 3. Project planning in groups, for solving problem of Handout 1. Participants are leading members of the Village Beautifying Association, and planning a max. 1-year-long project with a long-term goal of improving connection between traditional Cserkútians and settlers-in, and making local community want sustainable development. 4. Showing plans to each other 5. Evaluating plans from point of view of implementability
Learning method	talking, filling worksheets, group work
Materials	Copies of Handout 1 and 2, sheets, felt pens Handout 1,Traditional Cserkútians Handout 2, Traditional Cserkútians
Source	Nyiratine Nemeth Ibolya

Handout 1, Traditional Cserkutians: Situation in Cserkut

Cserkút is a village in Hungary with 400 inhabitants, near the city of Pécs (pop. 160,000). In the 60's and 70's many young people settled into the city and the population of the village had decreased. From the beginning of the 80's a new process has began: people from the city – mostly intellectuals -- settled into the village. The majority of inhabitants work in the city, their children go to school there too, so there is a danger of suburbanization. This process seems to be strengthened by the fact that the mayor of the city had a development plan designed so many properties will be parceled out and that population of the village will rise twofold.

A small group has decided to call local people's attention to other possibilities: how the village can be developed in a sustainable way. They organized different events, wrote a newspaper about sustainability, organized a Folk-high-school - free-for-all community college, initialized the modification of the development plan, draw representatives' attention to drawbacks of parceling out, prepared the happiness/sadness map of the village together with local youth. This project group joined the Village Beautification Association, whose members are mostly settlers-in, new-comers. Original villagers don't like these programs and they do not participate. This conflict is not new, the two kind of inhabitants cannot communicate well. Many of the settlers are engaged in village tourism and can earn a living from it; original villagers are jealous, but only few of them try this kind of income generation

.

There is another civil organization in the village: Association of Property Guards (home guards). Its members are mostly original villagers with a lot of young people, who enjoy "military". The two organizations are not on friendly terms with each other, they do not participate on each others' programs, they even organize their programs at the same time….

There is no school in the village, holy service in the church is only once a week (the priest lives in another village). There is a house of culture, a mayor's office, a memorial church, sports grounds, three pubs, a little shop and an ethnography exhibition.

Handout 2, Traditional Cserkútians: Project planning guide

Projects are tasks, which

- are not ordinary tasks of traditional institutions;
- realize a concrete goal, once;
- have well-defined resources;
- implementation is bound to strict deadlines.

An indispensable condition of a well-planned project is a logical and all-including project description. This is made for "outsiders", so it has to be formulated so that people who are not acquainted with the problem before should understand everything in the same way as project planners.

Important chapters:

1. ***Introduction:***
   Description of problem to solve, offer reasons for importance of project. Short description of former activities of the organization in similar areas.
   Example:
2. ***Target group:***
   Precise definition of who will profit from the project. List all social groups, who will profit directly or indirectly from it. Estimated number of people affected.
   Example:
3. ***Goals:***
   General long-term and concrete, direct goals of the project. (In this case: improving connection between traditional Cserkútians and settlers-in, and making local community want sustainable development.) Goal is the description of wanted results. A good direct goal is concrete, clear, unambiguous, realizable, measurable, timed, based on consensus.
   Example:
4. ***Activities:***
   Description of activities, which should be implemented by the project group for acquiring desired results. Activities can be numbered. All activities should be described (one sentence).
   Example:
5. ***Resources needed:***
   Materials, tools, money, services, human and other resources, which are needed for implementing activities, realizing goals. Precise estimation is important, because budget-making is based on it.
   Example:
6. ***Outer factors:***
   We should think of factors – even unforeseen ones – which are important for the success of the project but cannot be influenced by the project group. This makes project description real.
   Example:
7. ***Indicators:***
   Indicators which make possible continuous evaluation of progress should be determined beforehand.
   Example:
8. ***Organizational and institutional background:***
   Determination of organizational form of the group leading and implementing the project; what experts are needed, how the organization will work. Organizations, firms which will help in the project should be defined. If there is a partner organization, it should be introduced.
   Example:

Title of Activity	**Water Resources: How To Use Them?**
Topic	Water as natural resource, sustainable water use
Audience	Elementary, Middle, high school, adults
Background	Participants in groups „shoot" a film how to use water resources in sustainable way. They have to use all film frames and give a short commentary to every frame.
Time	30 – 40 minutes
Objectives	- recognizing ways of use water resources by living beings, - learning water cycle; - realizing important of water resources in local and global aspect
Process	- divide participants on groups of four, - each group get one set of film frames, - put all pictures in optional order but they should give commentary to every frame, - when they finish a film they give it title, compare and discuss with others.
Learning method	groups of four discussion, project method.
Materials	- large sheets of paper, - sets of „film frames": 25-30 pictures cut out from magazines and newspapers that are connected with water issues. - markers
Source	Alicja Wróblewska

Title of Activity	**World in Five Paradigms**
Topic	System thinking scenario development, Introduction to sustainable development
Audience	High school, adults
Time	45 minutes + 2-3 hours for additional activities
Objectives	To raise awareness of multiple-perspectives in approaching sustainable development.
Process	Divide the group into pairs. Invite them to share their life story from three different perspectives, 2 minutes each: 1. My life as a hero 2. My life as a victim 3. My life as if it had a special meaning At the end of the monologues, ask the group to share their experience. Discuss the emotional and intellectual differences between the first and the third story. Note: The facts are the same only our interpretation of our life story is different. The perspective of how we treat our lives, values, ideals has changed during the ages...Here we will present the simplified story of the world history: See Handout: World in 5 paradigms. At the beginning all the words are covered. Unveil each section separately – as you introduce them. At the end discuss with the group how would they draw the relationship between - Nature and Man in different stages of the world and what traces of past paradigms do they see in the modern world. Generally welcome short discussion, particularly, how they see the future. Finish with a scenario building activity (extra 2-3 hours).
Learning method	Individual, in pair, whole group discussion, lecturette by the teacher
Materials	Handout for World in Five Paradigms
Source	Ewa Smuk, Poland adapted from Betty-Sue Flowers, USA and Ulrich Goluke, Germany
Recommended reading	The Economic Myth. Center for International Business Education and Research, Graduate School of Business, University of Texas at Austin, 1995. Goluke, U. (2001) On the Edge of Abundance. Making Sense of What's to Come. http://www.blue-way.net Campbell, J., Flowers, B.A. ed. (1991) The Power of Myths with Bill Moyers. Anchor Books, New York, USA

Handout, World in Five Paradigms

	Hero	**Religion**	**Science**	**Economic**	**Sustainable development**
communication	stories	scriptures	logic	numbers & images	?
actor	heroes	saints	philosophers & scientists	consumers & producers	?
behavior	competition	obedience	reason	maximizing advantage	?
ideal	excellence	goodness	truth	growth	?
risk					?
control					?

IV. RESOURCES

IV.4. CASE STUDIES

The boundaries between schools and their surrounding communities are almost non-existent when it comes to learning about sustainability. What makes them both - the community and the students – benefit from this symbiosis? The following case studies introduce you to creative and successful strategies.

1. **Community-based Teacher Training, Kecskemét, Hungary**
2. **Earth Day, Słubice, Poland**
3. **Eco-Market, Plock, Poland**
4. **Lifelong learning without school, Cserkút, Hungary**
5. **Schools for local sustainability, Monostorapáti,Hungary**
6. **Youth Forum on environmental policy, Plock, Poland**

Title	Community-based Teacher Training
Place, date	Kecskemet (pop. 100,000), Hungary Since September 2001
Key concepts	• pre-service teacher training • preparing teachers for community-based teaching • collaboration of teacher training college and national park
For whom?	Students of teacher training college Future teachers of K- Grade 8
Why?	Future teachers learn how to involve the local community in teaching about sustainable development.
What? How?	The current pre-service teacher training in Hungary does not prepare students with the skills of engaging local community members (individuals, organizations) in their everyday teaching. These skills, however, are critical in making learning relevant to students' life, and helping them to make informed decisions about their lifestyle. The Kiskunsagi National Park and the Teacher Training College, Kecskemet realised that they needed a community-based teacher training for an effective community-based education. The best way to encourage community collaboration is through modeling it! So, the environmental education specialist of the National Park and the College developed a one semester long holistic community-based pre-service teacher training curriculum what they started testing through co-teaching in September 2001. Students learn cooperation skills, system thinking, the critical use of the internet to connect local community issues to the global reality, and how to use tools and resources so they last the longest possible.
Contacts	**Mr. Zsolt Gilly** Environmental Education Specialist Kiskunsag National Park Liszt Ferenc u. 12. 6001 Kecskemet, Hungary Tel.: (+36) 76 -482-611 Fax: (+36) 76 - 481-074 gilly@knp.hu **Ádám Ferencné** Environmental Education Methodologist Department of Natural Sciences Teacher Training College Kaszap utca 6-14., 6000 Kecskemet, Hungary Phone: +36-76-50-17-70 ext. 1818 Fax: +36-76-483-282 adamemmi@hotmail.com

Title	Earth Day, Poland
Place, date	Sł ubice, a village in Plock region, Mazovian voivodship, Poland last Sunday in April every year since 1992
Key concepts	• community-based education • involving local community in sustainable development • educational-cultural event
For whom?	local society of the rural borough Slubice, also from visitors from neighbour villages and cities, from pre-school children through students of different age, adults to seniors.
Why?	The most effective way to reach local rural society is through special events, like festivals, which gather people together and gave them the chance to learn something or experience something meaningful. The purpose was to increase the level of local society' awareness about environmental issues and to start a process of team-work effort towards sustainable future of the area.
What? How?	The initiator of the event was Association "Ziarno" ("seed" in English), local NGO. Now it is regional event with local authorities as main organisers and substantial local schools' involvement. We have started with the work of the Organizing Committee, which consisted of the representatives of different institutions: schools, local and regional authorities, local NGO, church. We have prepared the students contest before the event, like artistic contest with environmental or sustainable topic as well as general outlines of the event. We have prepared also special publications like leaflets and local newspaper with relevant contents. The highlight in 2001 was the survey about the Ecological Footprint. With a team of volunteers about 200 hundred participants of the event were interviewed about their lifestyle, according to the translated questionnaire of the Ecological Footprint Calculator and then local computer room was made available to calculate the results. The average of the rural inhabitants was 4.54 ha, 2.36 of globes, and for urban – 4.44 ha per person, about 2.3 of globes. There were several questionnaires, which we had to eject, because of the fantastic numbers, showing not serious approach. An important part of such event is always an artistic program, with great contribution of local children and youth. The result is increased knowledge about certain environmental issue- in this case about the influence of one's lifestyle on the environment and awakening the solidarity of local people as well as growing prestige of this particular borough.
Contacts	**Ewa Smuk Stratenwerth** Director, Association "Ziarno" Grzybów 1 / 2 09-533 Sł ubice, Poland Tel/fax: +(48-24) 2778196 ewapeter@poczta.onet.pl

Title	Eco-Market, Poland
Place, date	Podolszyce district, Plock (pop. 100,000), city in central Poland Mazovian voivodship every Saturday since September 2001
Key concepts	• providing a platform of communication between the rural and urban world through school – community partnership • promoting organic farming • promoting local craft and art • encouraging contact between consumers and producers
For whom?	local society of modern urban district Podolszyce, as well as organic farmers and producers of folk art and craft in the neighboring area
Why?	There is growing gap between the rural and urban world in Poland, the towns are developing quicker and rural areas are staying behind. We wanted to encourage more environment friendly consumers' behavior in Plock as well as to help organic farmers and craftsmen from nearby villages.
What? How?	The initiator of the event was Ecological-Cultural Association "Ziarno" ("seed" in English), local NGO: We wanted to help organic farmers with promotion and sale of their produce, change the consumers patterns in Plock and provide a platform of contact and communication between the inhabitants of villages and city. We have started with promotion of the Eco-market in local press, radio and through leaflets and with contacts with potential partners. Since September 29th, 2001 when we prepared a special festival, we have opened an Eco-market in front of the Elementary School # 22 on Saturday between 10.00 am and 1.00 pm. There are 4-5 farmers whose produce is sold (bread, cheese, milk, vegetables, fruits, jams, etc.) and 4-5 craftsmen, such as basketry, paper cuttings, linen bags and so on. The result should be a growing interest in organic food in Plock and more environment friendly consumers behavior.
Contacts	**Ewa Smuk Stratenwerth** Director, Association "Ziarno" Grzybów 1 / 2 09-533 Sł ubice, Poland Tel/fax: +(48-24) 2778196 ewapeter@poczta.onet.pl **Marlena Blachowicz** Director, Elementary School # 22 Czwartaków 6 Street, 09-400 Plock, Poland marlenablachowicz@poczta.onet.pl

Title	Lifelong learning without school, Hungary
Place, date	Cserkut, Hungary Started in the spring of 2001
Key concepts	Lifelong learning Cooperation between old and new residents in a small village From sub-urbanization to sustainable development
For whom?	Community members of a small village.
Why?	To save the social and environmental values of a traditional village with an innovative strategy for its economic development.
What? How?	Cserkút is a small (pop. 400) village in Southern Hungary, near the big city of Pécs (pop. 900,000). There were two major changes in the village over the last 40 years.. In the 60's and 70's many young people moved out from the village to the big city for better employment, so the population of the village dropped sharply. From the beginning of the 80's a new process began: people from the big city – mostly intellectuals, middle-class – moved out of the big city to the village for better living environment. The majority of new-comers works in the city, their children go to school there too, so there is a danger of sub-urbanization. A small group has decided to call local people's attention to other possibilities: to develop the village in a sustainable way. They organized different community events, wrote about sustainability in the local newspaper, organized a Folk-high-school - free-for-all community college - , initiated the modification of the village's development plan, raised awareness among local villagers including the mayor, select board members, prepared the joy and sorry map (see Activities) of the village with local youth. There is no school in the village. But there is a house of culture, a mayor's office, a memorial church, sports grounds, three pubs, a little general store and an ethnography exhibition. Cserkut can serve as a model for sustainable development in small communities where the old, rural, poor and the new, urban, middle class residents figure out a way to make the village a peaceful and sustainable community. Handouts:
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Handout 1: From dreamy ideas to the first steps

In this handout I am going to describe some practical steps to those, who decided to shake up their own local commnuities and introduce them the idea of sustainability. Everybody can participate, who feels they have enough strength needed to achieve small successes and absorb failures.

Settlement development plan

My activity began after seeing a settlement development plan, exhibited in public, which showed that many new building sites will be parcelled out, which means multiplying the number of inhabitants with people who come home only for sleeping. They will work in the city, have entertainment in the city, shop in the city, their children will go to school in the city...

Alternative plan: mayor, village assemblage

I begin to think about how this area can be utilized otherwise. I wrote down my ideas and discussed them with the mayor, who get interested in new ideas and sustainability. On a village assemblage I spoke about what the local community can win and lose on parcelling this area out.

Local project group

The next step was organization of a local project group for active work on solving this problem. Local people and outer experts were invited to this group. In the meantime we found out that leaders and members of Village Beautifying and Environmental Protection Association of Cserkút, working for years in the village, are ready to receive the group with its development proposals, so we began to apply together with them for resources for implementing our plans. In Handout 1 you can read some details of this application so you can get ideas or learn about methods of writing applications.

Local newspaper: Eastern programs

The local authority offered us to devote Eastern issue of local newspaper – brought to every household -- to sustainability. We write about our plans, about sustainability, about Eastern habits now and in the past and about our programs in near future.

People's College

One of our main programs in spring was People's College, arranged with help of Independent Ecological Center, Budapest. Its interesting, thought-awakening programs were attended by many people. During these programs I had to realize sadly, that the village is not unified, many hurts work in the background. Our programs were attended almost only by „settlers-in", „original" villagers stayed away.

Representatives' corporation

Our group was invited to a meeting of local representatives to introduce our ideas to them. Some of them were interested, some rejecting.

Joys and Sorrows Map

Joys and sorrows map of the village was made with local representatives (formerly with participants of People's College, later with members of Youth Club.) It was nice too see that we think similarly about values and problems of the village.

Ethnography exhibition

Creating an ethnograpy exhibition was another good opportunity for getting acquainted with the village. There was already a room with collected objects; we have found out ordering principles and looked for more objects, photos and stories. Eldery Cserkútians were visited and made them talk about the life in the village in their youth: how, with what works they earned money, what entertainments they have, how they married, have they washed... Old family photos were borrowed and copied, stories were written down and they were presented in posters. Some stories were published in local newspaper. Elderly people were happy that youngs came to learn from them, talk with them.

Village Day

Organizing Village Day – day of handing over of millenium banner – was a great step in improving connections between „settlers-in", „original" villagers. We worked together in a preparing committee and in realization. There were problems, but in the end participating villagers had a good time, enjoyed a variety of programs, and settlers-in were appreciated too. Since then more people told me on the street how nicely tables were laid and how well dinner-distribution went (it was our task). Village Beautifyers bake traditional flat cakes in a freshly-built oven – tasting offered a great opportunity for making friends. Among entertaining programs everybody found their favorite.

Photo and local history competition

A photo and local history competition were written out for the village day. One task was to take pictures of the village today and compare them with pictures made 60-70 years before. It was interesting to see the change of the settlement on these pictures. Other task – local history – aimed to bring together generations through getting to know elderly people's lives. Competing young and story-telling old people all had pleasant experiences.

Handout 2a: Project proposal

Local sustainability in Cserkút

Work area:

1. Social and economic development
a. local and regional development

Scene:

Hungary, Region South-Transdanubia, Village Cserkút

Summary

According to current settlement developmental plans the village will become a satellite town of Pécs. As a result, the traditional local community disappears along with the attractiveness of rural tourism -- sustenance for more families – decreases. Village Beautifying and Environmental Protection Association of Cserkút, supported by Independent Ecological Center and Hungarian Society for Environmental Education prepares Local Sustainability Conception of the village **(Local Agenda 21),** based on a state survey made in cooperation with local people, on experiences of study trips to Hungarian and Polish sustainable communities and on special literature. In the process of cooperation partner organizations provide their expertise in project leading and education for enabling local resource protectors to implement their own projects in the future. For the success of this and future project preparing information materials (leaflets, website) of the Association is of great importance.

Goals set by the project:

- Developing attitudes towards protection of local values, problem solving, thinking in European and global dimensions;

- Preparing development conception of local sustainability in Cserkút: state survey and strategy (80 pages)
- Educating local people for sustainability: organizing people's college and youth club, developing school curriculum, INSET for teachers
- Strengthening institutional and working capacities of Village Beautifying and Environmental Protection Association of Cserkút, education of its members for realizing possibilities open for civil organizations, development of organization, obtaining project-implementation skills
- Getting in touch with ecological and environmental educational organizations of country-wide reputation
- Informing about role of civil organizations in EU, searching for European civil platforms, preparing for connection
- Acquainting Village Beautifying and Environmental Protection Association of Cserkút through leaflets and website (Hungarian and English)
- Learning from experiences of Hungarian and Polish ecovillages, locally sustainable communities, and informing local people in this topic

Handout 2b: Project Activities and Methods

1. Project management meetings

Discussion of actual tasks, setting dates of programs, assigning responsibilities, evaluation of programs and PR activity takes place at project organizing meetings.

2. Organization developing training

Three-day residental course for representatives of Village Beautifying and Environmental Protection Association of Cserkút, Association of Property Guards and other civil organizations of the microregion (15 persons), Themes: strategy planning, project planning, making action plans, conflict management, cooperation, resource acquisition, PR activities.

3. Local inhabitants' forum

Calling together a local inhabitants' forum in Cserkút for making known the project and planned programs; and a leaded discussion about possible ways of local sustainability.

4. Situation analysis

Questionnaire study: asking local inhabitants (350 persons) through a self-fill questionnaire (max.5 pages) about local sustainability, local values and problems, business interests and knowledge. 50 persons, chosen on the base of questionnaire answers are visited by inquirers of the Association for filling out a standardized interview-questionnaire which can be filled out in an hour. Data will be analyzed and a summary be made which will serve as a base for planning local sustainability conception.

5. Establishing contact with civil organizations

Sending letters to civil organizations of microregion, national environmental organizations and civil organizations in Pécs working in similar areas for informing them about our project and looking for cooperation possibilities.

6. Peoples' college

Peoples' college will be organized (two hours in five succeeding weekends) for local and neighbouring people in themes of local sustainability, preparation for EU-joining, role of civil organizations in community-building, rural development, local possibilities for organic farming and food processing.

7. Programs in Youth Club

Youth of Cserkút are open for every new possibility. They operate a well-organized youth club, and look forward for the planned three event of our project, which aim to strenghten their positive thinking, local attachment, active attitude towards environmental issues and help profession-choosing serving local sustainability.

8. Getting know local sustainability projects in Hungary

Seeking for local sustainabiliy pojects in Hungary, visiting them, sharing experiences. Collecting ideas adaptable in Cserkút, using them in creating our conception.

9. Visiting a similar community: ZIARNO (Grzybow, Poland)

Visiting collegaues, got known in a former American-Hungarian-Polish project. Collecting experiences in their well-doing Ecofarm Association, eco-village, collecting ideas adaptable in our region.

10. Creating conception of local sustainability

Creating conception of local sustainability (80 pages) based on inhabitants' forum, situation analysis, Hungarian and Polish projects got known. This document will be given to all representatives of local authority, partner organizations, local civil organizations, members of project leading group (22 exemplars). All families of Cserkút will get a 20-pages summary of it.

11. Developing environmental education curricula, teachers' refreshing courses

Developing a local curriculum modul for environmental education and teachers' guide. Its themes: local sustainability, our joys and sorrows (values and problems), rights of future generations, environmental and citizen actions, environmental multimedia learning games. One-day refreshing course for local teachers about developed local curriculum. Copying curriculum and teachers' guide (20). Trying out local curriculum in school of K vágósz ll s (Children of Cserkút study there). Publishing a report about experiences in Módszerkosár (newsletter of Hungarian Environmental Education Association).

12. Information booklet about Village Beautifying and Environmental Protection Association of Cserkút

Folding two-sided A4-format leaflet in two colors, with small drawings, translating to English and German. Multiplying: Hungarian 200 pcs, English 100 pcs, German 100 pcs.

Handout 2c: Roles and Responsibilities

Project Leader

- Directs group leading the project
- Supervises work of experts and volunteers
- Supervises finance of project
- Organzes, coordinates meetings
- Builds outer connections
- Maintains contact with partner organizations
- Contributes to preparing reports

Leader of Association

- Full representation of Association
- Activation of members of association
- Keep watch on timelines

Local Sustainability Expert

- Leads and coordinates situation analysis and creating local sustainability conception
- Edits local sustainability study
- Leads programs about sustainability
- Contributes to reports

Education Expert

- Prepares and organizes educational programs
- Controls quality of programs, supervises their proper implementation
- Recruits and motivates participants
- Contributes to reports

Economic Expert

- Manages resources of project
- Holds responsibility for keeping Hungarian tax and accountancy laws
- Monitors project
- Looks for resources, sponsors, supporters
- Contributes to reports

Information Expert

- Computerized communication
- Preparing PR and advertisement materials, publications
- Web-development
- Information education

Representative of Local Authority

- Representation of community interests
- Guarantees societal control
- Maintains connection with local authority, coordinates decision preparation

Title	**Schools for Local Sustainability, Hungary**
Place, date	Monostorapati, Hungary 2000. Nov. 9-11.
Key concepts	• Local Agenda 21., local sustainability • School, school-staff • Teachers' in-service training • Involving local people
For whom?	• School-staff • Local stakeholders • Local authority
Why?	To demonstrate that global sustainability is based upon local sustainability of small villages.
What? How?	• We wanted to rise the environmental awareness of a school staff concerning to the local natural and cultural heritages. • We helped the school staff in planning projects on how to learn and save the local heritages and how to built them in the local curriculums. • The results are and will be: - local authority level projects for saving the local heritage; - environmentally better local curriculums
Contacts	**Vasarhelyi Judit** Hungarian Society for Environmental Education Budapest, P.O.Box 530. 1397, Hungary Phone: +36-1-2694481 Fax: +36-1-2694481 mkne@freemail.hu

Title	Youth Forum on Environmental Policy, Poland
Place, date	Plock, Plock powiat, Poland From December, 2000 to April, 2001
Key concepts	- Poland's accession to the European Union - comparing environmental policies in Poland and in the European Union - cooperation between high-schools, policy makers and local government representatives
For whom?	high-school students
Why?	- To raise awareness of the environmental policy changes Poland is facing during its accession to the European Union; - To facilitate cooperation between youth and local government representatives; - To enhance communication of youth from different high-schools in Plock.
What? How?	A Youth Forum was organized by High-school #6 in Plock for all high-school students and teachers entitled „Environmental policy in the European Union (EU)and environmental policy in our region (Plock powiat)." Guests represented the local government, the school-board, Warsaw University, non-government organizations, and parents. The Forum was developed by a five-month process (December, 2000 to April 2001)where students were instructed to do independent research and develop a portfolio on one of the following themes: 1. State of water pollution in Plock 2. State of air pollution in Plock 3. Waste problem in our town 4. Nature of our Plock powiat 5. Health in our community Teachers were only consultants, helping students in difficult situations. These projects required individual and collective work, creative problem solving, focus on inquiry, skills of cooperation, communication, interpretation of data, and drawing conclusions. The Youth Forum (April 25, 2001) included: **Presentations** about the environmental policy in the EU and in Plock Powiat by Witold Lenart, Warsaw University and Janina Kawał czewska, Plock Powiat administration **Art-show** "Rural lands are not always ruins" presented by 50 students featuring a humorous puppet show complete with Polish and EU vegetables; traditional Polish rural dresses. **Exhibit** of students' projects, portfolios (results of their five months observations, literature analysis, interviews, inquires etc.) **Food** – sharing healthy and environmentally friendly meal **Workshops** (3 hours) – students (working in five groups) and their facilitators (students of the ecological section of student's government and teachers) made collages on the following themes: 1. "What could you do to improve environmental protection in your region?" 2. "What can our Plock region offer to Europe?"

	3. "What is EU's attitude to environmental protection issues?" The collages were presented and awarded by an independent jury. Evaluation: Students got marks from different disciplines: geography, chemistry, arts, physical education, literacy – depending on which part of the Forum they were involved, e.g. when student was preparing artistic show, got mark from arts.
Contacts	Maryla Chmielewska (teacher) Gimnazjum # 6 Jachowicza 20 Street 09-400 Plock , Poland Tel/fax: +(48-24) 262-72-20

V. REFERENCE MATERIALS

The list below refers you only to those websites, books and journals that had special significance for the development of this Guidebook.

V.1. WEBSITES: ORGANIZATIONS, PROJECTS

V.2. ON-LINE COURSES

V.3. BOOKS

V.4. MAGAZINES, JOURNALS

V.1. WEBSITES: ORGANIZATIONS, PROJECTS

Poland

Polish PIE Guidebook (2001)
http://www.eko.wroc.pl/pie (in Polish)

Polish Environmental Education Strategy (2001)
http://www.mos.gov.pl/mos/publikac/Raporty_opracowania/strategia_ang.pdf

Center for Environmental Education and Training, Warsaw, Poland
http://odiee.geo.uw.edu.pl/

The Lower Silesian Foundation for Sustainable Development, Poland
http://www.eko.org.pl/dfe/in_eng.htm

Green Gate - Environmental Server, Poland
http://www.eko.wroc.pl/home/

Hungary

Hungarian PIE Guidebook (2001)
http://korlanc.ngo.hu/download/piekonyv.doc (in Hungarian)

Hungarian National Environmental Education Strategy, 1998, 2002 (in Hungarian)
Contact: Attila Varga (vargaa@oki.hu) for the hard copy of the English version
http://www.bocs.hu/kornev/strateg/index.html

Environmental Education Concept of the Ministry of Education and Ministry for Environment, 2001-2002
http://www.prof.iif.hu/iucn/docs/ford.htm

Korlanc Hungarian Society for Environmental Education
http:www.korlanc.ngo.hu

Hungarian Environmental Education Foundation
http://www.nhmus.hu/muzeum/hxnevel.html

Environmental Education and Communication Program Office
of the Hungarian Ministry of Education and Ministry for Environment
http://www.prof.iif.hu/iucn/indexa.htm

National Institute of Public Education, Hungary
http://www.oki.hu/english.asp

Independent Ecological Center
http://www.foek.hu/kornet/ (Interactive Environmental Education eCourse in Hungarian)

Hungarian Eco-Schools
http://www.okoiskola.hu/english.html

Vermont, USA

Burlington's Legacy Project
http://www.iscvt.org/psunitedstates.html

Institute for Sustainable Communities (ISC)
http://www.iscvt.org

Shelburne Farms
http://shelburnefarms.org

Vermont Framework of Standards and Learning Opportunities
Featuring education standards for sustainability
http://www.state.vt.us/educ/stand/page3.htm

Center for a Sustainable Future (CSF)
http://csf.concord.org/efs/

Environmental Learning for the Future (ELF)
http://www.vinsweb.org/education/whatiself.html

Linking Learning to Life
http://www.uvm.edu/~linking/

Vermont Community Works
http://www.vermontcommunityworks.org/

World-wide

Change-makers, Ashoka Foundation
http://www.changemakers.net/

Education for Sustainable Development Toolkit
http://www.esdtoolkit.org

Foundation for Environmental Education (FEE)
http://www.fee-international.org/

Institute for Global Environmental Strategies (IGES)
http://iges.or.jp
http://iges.net

International Debate on Education For Sustainable Development (ESDebate)
http://www.xs4all.nl/~esdebate

The International Institute of Sustainable Development (IISD)
http://www.iisd.org/

IISD Youth Source Book on S.D.
http://iisd.ca/youth/ysbk000.htm

Introduction To Sustainable Development
http://sdgateway.net/introsd/

Isaak Walton League of America - Sustainability Education Project
http://www.iwla.org/sep/index.html

Lake Champlain Basin Science Center
http://www.lakechamplaincenter.org/subpg/basincurr/ecopeers2/ecopeers_2000.html
Leadership for Environment and Development (LEAD)
http://www.lead.org

Learning and Environmental Activities Foundation (LEAF)
http://educat.lit.osaka-cu.ac.jp/~leaf/index.html

Learning for a Sustainable Future
http://www.schoolnet.ca/learning

Lesson Plans to Build Bridges to a Better Community, Anoka
http://www.ashland.com/education/lesson_plans/week5/
The Regional Environmental Center for Central and Eastern Europe
http://www.rec.org

Redefining Progress
http://www.rprogress.org/resources/resources.html

Rescue Mission
http://www.ec.gc.ca

Second Nature
http://www.secondnature.org

Sustainability Education Center
http://www.globaled.org/sustain/sustain.html

Sustainable Development Timeline
http://iisd1.iisd.ca/timeline/

Sustainable Europe Research Institute (SERI)
http://www.seri.at/

Sustainable Measures
http://www.sustainablemeasures.com/

Teaching for a Sustainable Future
http://www.unesco.org/epd/unesco

United Nations Sustainable Development
http://www.un.org/esa/sustdev/

World Bank Institute's Development Education Program
http://www.worldbank.org/depweb/

WWF-UK: Education and Community
http://www.wwf-uk.org/education/

V.2. ON-LINE COURSES

About Learning
http://www.aboutlearning.com

Association for Supervision and Curriculum Development (ASCD)
http://www.ascd.org/

Center for a Sustainable Future (CSF)
http://csf.concord.org/efs/

Institute for Global Environmental Strategies (IGES)
http://iges.net

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