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New Tendencies in Environmental Education in North America

In this article, I want to discuss tendencies in environmental education¹ (EE) that I observed at the Fifth World Environmental Education Congress (5th WEEC) in Montreal/Canada in May 2009 and at the following six week research journey through the United States. I started in the cities on the East Coast (New York, Washington and Philadelphia) and continued at the West Coast (Oregon and the San Francisco Bay Area) not visiting the heartland, where I would find only few examples of interesting new ideas on EE, as I was told.

I was looking for new tendencies in EE from the view of a German having been involved in projects on school, local, national and European level for 15 years, mainly regarding energy and climate change. Of course, I found many projects that were new for me, especially in nature conservation that seems to make up the biggest part of EE in North America. In this analysis however, I want to concentrate on new developments that may be useful to adopt in my own country. The most important developments in this respect I found at the 5th WEEC and during my journey in the USA were:

- Becoming Political
- Dealing with Climate Change
- Supporting environmental justice and including indigenous knowledge and action into EE
- Improving the cooperation between school and community

All these tendencies are linked with each other.

I will define the tendencies and their links first and discuss them from a European point of view second.

Becoming political

I describe the tendency to become political first, because it was my most important observation at the 5th WEEC (chronological at the start of my research) and it makes clear, that the organizers of the congress as well as many environmental educators in North America have a broad understanding about EE². Therefore, the identification of EE and Education for Sustainable Development (ESD) in this article should be justified.

¹ In am using the expression "Environmental Education" synonymous with "Education for Sustainable Development (ESD)" because the latter is not widely used in Canada and the US. There, only insiders know it. When I used the term ESD in a discussion, it was explained by a participant with the words: "In other regions of the world, they tend to say Education for Sustainable Development, when we (in the US) say Environmental Education." With this equation of the notions she is right at least as far as the contents that are dealt with are concerned, because in the US and Canada social, cultural and sometimes even economic questions are subjects of EE.

² In the presentation of new tendencies in EE, I will not distinguish between the experiences I made at the 5th WEEC in Montreal and during my journey through the US. Of course, there were representatives from many other countries at the WEEC, too. But at a congress with more than



The broad approach of the 5th WEEC is made clear already by its introductory and general questions, which were:

- How can EE ad meaning to our life?
- How can environmental education contribute to social innovation?
- How can environmental education contribute to political innovation and influence public policies?

Stephen Lewis, who chaired the first international conference on climate change in 1988, made the keynote presentation at the opening session of the 5th WEEC. "To become political effective" was the main statement of his speech. He gave his answer to the general questions of the congress with his demand on EE: „We have to create a global citizen, with the idea of fairness.“ Lewis stated that EE has been quite successful in helping to "green society" by making the students understand what a "Green society" means. He gave some examples like the recycling of waste, nature and water conservation, less cars, better heat insulation, less meat for dinner and many other examples, which are widely accepted by German and European educators, too. However, he also reminded, that this was not enough, because we cannot go on "step by step" as we have been doing until now. Regarding the reduction of CO₂, we were in a race against time "that we may already have lost". That means we have to leave the carbon-based society that we developed the last 200 years. Therefore, we have to accept and to push general changes in society.

I like to quote his main theses slightly shortened:

"Therefore, this fifth congress becomes a political act. It all comes to a political question because we know what should happen. Until now, it has not happened! Canada is becoming a big destroyer: instead of 6 % reduction, there is a 26 % increase of CO₂ emissions. Probably it is too late, because we cannot change the things that are going to happen until 2050, but we may influence the second part of the century. It may still be possible (even though it is not likely) to limit the rise in temperature to 2 °C, which would be necessary to prevent disasters as:

- Global food shortages threatening one billion people until the middle of the century because of global warming
- Severe water shortages threatening three billion people
- Death because of extremely high temperature
- The spreading of vector-borne diseases
- Rise in Sexual and other form of social violence

2000 participants, a large number of participants usually comes from the continent where it takes place. The same applies to the NGO-forum of the conference, where most of the exhibition tables showed activities of American organisations. The 5thWEEC was in general a bit more radical than most of the EE practitioners I met in the US and had a stronger academic background, but the general tendencies where the same.



We do not know, whether we will be successful. Nevertheless, if we will be successful it will be due to EE. So, it is a great privilege to be an environmental educator today."

To become political was not only the main idea in the opening speech but it was the general feeling at the congress probably initiated by Obama's call "Yes we can", even though some of the congress participants regard themselves as being more radical than the US President.

Two other main speeches by Ricardo Petrella and Adriana Puiggrós supported the idea of becoming political. Especially the Argentinean expert, Adriana Puiggrós, proclaimed a radical break with neoliberalism. She also focused on action to be taken and introduced the concept of the ecological handprint that an Indian activist had developed. In contrast to the widely known footprint, the handprint focuses more on problem-solving and things that can be changed by individual or collective action.

In the views of the three main speakers and with a very broad understanding of environmental education it is actually the mission of EE to save the world.

Such a view is naturally supported by the energetic mood of a world congress with 2000 participants from more than 100 countries. Therefore, we are looking forward to what the home comers can transfer into their everyday work.

Nevertheless, even when we put the congress' attitude into more sober perspective, we should learn from it: We should stop setting our goals too narrow. We have to fight for more than just changing secondary matters and minor subjects regarding school curriculum and administrations. It must not be the aim to have very radical views. But we have to impart to the public (and especially to the youth) that we have to achieve far-reaching changes in a short period of time. In this sense, the ecological handprint is actually at least as important as the ecological footprint.

Dealing with Climate Change

To deal with climate change is not a new tendency in EE in Germany and most other European countries. However, in many non-European countries this is the case.

Climate change (CC) is at this moment becoming an important issue in EE in the United States, because only the Obama administration started to support it. But there are many other countries where CC has not been an issue in EE for a long time even though no Bush-administration stopped them. There seem to be different reasons for this deficiency. In some countries, like in Canada, where the 5thWECC took place, issues like nature conservation, environmental justice and the inclusion of indigenous educators into EE have been more important in the last few years. Dealing with CC does generally not improve everyday life immediately, so it can be seen as a topic for the affluent. The same applies even more to developing countries e.g. in Latin America, which think first, that they should not adjust the use of their resources to such a "luxury issue", and second, that it is the duty of the developed countries to deal with CC, since they caused it in the first place.



Only when you make the step to see CC as a political issue that needs international action, it becomes evident that you have to deal with it in a developing country, too.

Supporting environmental justice and including indigenous knowledge and action into EE

EE should no longer be a subject for (white) middleclass people only. Only if EE reaches all people, sustainability and fairness can be achieved. Besides the general notion of equality, there are several reasons for this target:

- People from poorer classes, minorities and indigenous peoples suffer most from pollution and CC
- Indigenous people have been living in close connection with their environment for centuries
- EE can only be successful when it reaches all people

Environmental Justice

Within our globalised market society, the poorer classes and minorities of different kinds suffer most from pollution and climate change. They usually live in more polluted areas and have less access to nature and to medicine. In addition, they usually have less opportunity to change their environment for the better, because they have less influence on politics or mass media.

To support environmental justice means on the one hand improving the „Environmental Literacy“ of socially disadvantaged groups and minorities, which normally hardly use their participation rights. On the other hand Environmental Justice deals with environmental problems that have more impact on poorer classes than to middle-class people e.g. because of the areas they live in, their housing conditions etc.

Cooperative projects aim at dealing with both aspects of Environmental Justice:

- Environmental activists and educators take concrete action, propagate the measures via the mass media and DVDs and develop networks.
- People suffering from environmental problems are empowered to become active themselves

During my research on new tendencies in EE, I found the principle of supporting environmental justice not only at the 5thWEEC. But it was also an important issue in the environmental practice of NGOs (like Earth Force <http://www.earthforce.org> and Solar1) as well as in governmental politics carried out by EPA (Environmental Protection Agency) <http://www.epa.gov/compliance/environmentaljustice/> and of the volunteer work from VISTA (Volunteers in Service to America) <http://www.americorps.gov/about/programs/vista.asp>.



Indigenous Peoples

Indigenous people do often suffer from climate change and the destruction of the environment. This applies both for indigenous people living integrated, even though marginalized, in the main society and for indigenous people living in their own communities. This is obvious in Canada with the Inuit and Indian people, whose environment is literally melting. So this was an issue at the 5thWEEC as well. The same question exists in developing countries too, where indigenous people are most affected by environmental problems, whether they are integrated or not. During my research in the US, I visited the Centre for International Environmental Law (CIEL) <http://www.ciel.org>, which is concentrating on supporting these people regarding international law.

However, there is another reason apart from justice: Indigenous peoples have been living in close connection with their environment for centuries. Therefore, they probably have much to tell about a way of life that fits in with the environment, even though their former lifestyle cannot be recovered.

Cooperation with indigenous educators and integration of their knowledge and actions into EE help to develop a "Green Society".

At the 5thWEEC, many approaches of indigenous EE educators were presented. Their work is focussing on environment and health, development on the local level and traditional food and medicine.

Very often educators are using outdoor teaching or teaching at traditional places which are important to the indigenous people.

In general, it is seen as a problem of modern childhood that children estrange from nature (see: „Last Child in the Woods“). This is bad for all children, but for children with an indigenous background, it means an additional alienation from their own cultural identity.

Indigenous education therefore continuously imparts physical instead of virtual experience of nature and focuses on nature's positive and productive aspects and not on the dangers. Simultaneously, indigenous education is based on several educational aspects of traditional culture, which are:

- The choice of appropriate places with reference to the group's own culture when founding educational institutions and looking for the further development and growth of these places
- The use of technologies based on resources that are renewable or available for a long time and which on the whole support a sustainable development
- The establishment of a connection between the outer and the inner world while teaching different subjects, thus adding a spiritual dimension to matters taught.

Canadian educators said at the 5thWEEC that these principles of Canadian Indians and Inuit correspond with the criteria for EE drawn up by the Canadian Government.

It is important for everybody involved, that the indigenous people do not want to be seen as "museum peoples", but as part of modern society, to which they want to contribute their knowledge. Most of the EE projects are connected



closely with the struggle against social and health problems of the indigenous communities like alcoholism and diabetes.

Getting involved in your Community

To leave the school building to become practically involved in the local community is another current tendency in EE. It is of course closely linked to the other described developments like becoming political, environmental justice and including social questions.

At the 5thWEEC, Diana de Courca from the school administration of Montreal answered the question about what schools should do, if they want to change politics on education, environment and climate change:

- They should communicate their preferences broadly
- They should use local political and administrative structures
- They should develop their own forms of education and organization
- They should have a lot of staying power

It was pointed out, that the United Nations are supporting closer cooperation between schools and communities, too. The UN promote "Regional Centres of Expertise (RCE) on ESD". Sixty-two of them already exist. Each centre has to develop a regional network with formal (schools, universities ...) and non-formal (museums, local media, communities and NGOs) actors.

Again, it was not only the congress putting forward the idea of schools getting involved in their communities. Governmental and non-governmental groups all over the US actively support this idea. In Philadelphia, I had a very interesting meeting with the local Delaware Valley branch of the NGO Earth Force, founded about 10 years ago. Earth Force is doing EE and has set up youth groups as well. The main EE program of Delaware Valley Earth Force is called „Community Action & Problem Solving (CA&PS) ". I developed the following ideas on EE in close connection to this program.

The starting question of all EE projects aiming at qualifying students to become active in their community should always be: „What can be improved? ". So, the EE in this projects is not only done for its own sake but also for the effect it has for the real world. This approach is sometimes called "Service Learning".

Students should learn to deal with and discuss real and important issues without prejudice and in the same time help to solve ecological and social problems in their community. This is closely linked with ESD, as the students learn to make their own decisions, to cooperate with others and to evaluate the results of their work.

Basically, the students should decide, which problems to deal with. But the teacher has to make sure that the chosen problem has an environmental impact, that there is a connection with ecology. These projects should achieve:

- awareness on ecologic and social problems
- basic knowledge on environmental and social issues
- a responsible outlook regarding the environment



- participation of social groups and individuals

Therefore, this project supports citizenship education at the same time, which imparts knowledge and practical skills the students will need to become active members of civil society.

Projects that are linked with the community can be structured in different ways. I like to name some relevant aspects of these projects:

- Getting to know the community: What happens in our community? Which ecological and social problems exist?
- Choice of the problem: What do we want to deal with? Criteria for answering this question should be the relevance for the community, personal interest and the possibility to achieve changes.
- Research into the issue: The students find out, what is being done about their problem already. What happens on a political level and what in informal structures? Which results were achieved so far?
- Opportunities for action: What can we do? What is appropriate? (Leaflet, Cooperation with local media, calling for an open meeting, visiting the local authorities?)
- Decision about the form of action, plan the action and put it into practice.
- Evaluation and reflection: What did we achieve? What was not successful? What remains to be done?

I did already refer to the Delaware Valley Earth Force and their CA&PS-Program and to the policies of the Montreal School Administration as introduced at the 5thWEEC. But, as I found more groups and organizations with different and very interesting approaches, I like to name some of them:

- Sunnyside Neighborhood Energy

An NGO that is planning a community heating system based on mostly renewable energy sources using the school as the center of this system. The solar heating panels on the school roof help combining the project with environmental education for both the students and the public.

- Oregon State University, Dan Hoynacki

Dan Hoynacki is the sustainable communities coordinator at the University. He cooperates closely with several high schools. The students do long-term projects (one year or longer) including research, planning and practical measures to improve the environment in their community. Dan Hoynacki always forms mixed groups with students from different schools, allowing them to outgrow the roles they have taken in their classes.

- Student Environment Development Program

The Student Environment Development Program is a seven-week summer program of the EPA Region III. It teaches basic knowledge on environment issues as water conservation, recycling, energy and so on. However, about two



thirds of the Program consist of life skills and of developing a closer and better relationship with their local community, "It is my responsibility." being the slogan of the program.

The Community Approach

The approach to get involved in the community of course requires a community, which the students can refer to. This may be difficult in big European cities. It seems to be easier in rural areas in all countries and in the cities of the US and Canada, where small communities still exist.

Community in this sense can be defined and have developed in different ways:

- Historically: As the community has grown for long time
- Politically: Structures of the political and administrative life, constituencies etc
- Demographically: Population structure, communities of immigrants etc
- Geographically: Watersheds, hills, valleys

This list gives some ideas how to transfer the community approach to European big cities. Maybe the educator should just ask the students, what they think their community is, when trying to adopt this action-oriented ESD approach to European conditions.

Conclusions

Three of the four described tendencies are new for Germany or they are much further developed in the USA. Just the dealing with climate change³, i.e. energy saving, renewable energies, global warming is more developed in Germany, so I will focus on formulating conclusions on the other three tendencies.

Becoming political

The aspiration to become political was my main observation at the Fifth World Environmental Education Congress as well as in the attitude I found with lots of environmental educators in the USA. In the USA, it was strongly connected with the "Time of Change" and "Yes, we can!" impetus of the Obama Administration. That is why it cannot be transferred one to one to Europe. Nevertheless, we Europeans should learn, too, not to restrict our aims and our demands too early and too much. We are in a race against time as far as the change of our energy systems and our dealing with natural resources in general are concerned. To win this race, a broad rerouting is necessary to stop the pursuit of permanent growths, until now defining our economic system. To achieve these goals

³ The former Bush Administration denied the danger of climate change. Therefore, most environmental educators from state and federal organisations could not deal with this subject. Only since the Obama government came into power, they are catching up. But even now, most of the education deals with global warming and climate impacts, describing its connections and mechanisms, while climate protection, energy saving etc. takes up only little room.



consistently and peacefully, education has to play an important role. We *as educators* have to become aware of *this task and face this challenge*.

To become politically involved is a general demand not on every single project but a criterion for all of them and an appeal to environmental educators to include political aspects into their work.

Environmental Justice

After my experience in the USA and Canada, I would like to sum up four approaches under the umbrella of Environmental Justice:

1. Dealing with environmental problems that have more impact on poorer people than on middle or upper class people
2. Integrating indigenous peoples and their knowledge, actions and teaching approaches into EE
3. Cooperating internationally with people from different backgrounds, taking up their struggle for human and environmental rights, nature conservation and against dangerous climate impacts
4. Supporting „Environmental Literacy“ of socially disadvantaged groups and minorities

These approaches are of different relevance when transferred to Europe. The first one refers to all countries so it should be taken into account when developing a project with environmental impact especially on poorer people. Very often, the negative environmental impact is connected with other social and economic problems. So it is not only a task for environmental education but also of interest for social movements, religious communities, trade unions and so on. Environmental educators should use these possibilities of co-operation when planning the project.

Integrating knowledge and action of indigenous peoples seems to be more important in North America, where the white people have conquered the land from groups and nations that have been living on the fringes of society ever since, if they survived at all. When discussing the post-carbon future, however, it would be worthwhile in Europe, too, to integrate knowledge from people from other regions of the world, which have been living in close connection with their environment for many centuries.

To cooperate on an international level to deal with environmental and climate problems of different regions and peoples is a demand that can be met by forming networks, choosing the contents of teaching and – very practically – by school partnerships. If these networks and partnerships involve lots of travelling, they may be counterproductive from the climate point of view, though. Therefore, our first step should be choosing the subject and including contents from development initiatives and the One World Movement.

The last aspect of Environmental Justice, to support the environmental literacy of socially disadvantaged people, should be considered in Europe as well as in the US and Canada. As I don't have any practical experience in this field, just second hand knowledge from a few educators trying to give it a push in our country, I just like to make a suggestion that seems to be useful from what I



have seen during my visit: That is to improve environmental literacy by including this subject in projects in which students get involved in their community.

School and Community

A closer cooperation between school and their surrounding community provides opportunities that I consider very valuable. During my stay, I came across different projects in schools, universities, local communities and NGOs aiming at the improving the cooperation of different actors in communities. These projects have positive results for both the students and the community. Many of them are effective in improving "real life".

Thematically the projects can work on different issues like water conservation, waste reduction and recycling, energy saving and use of renewable resources, impacts of climate change as well as nature conservation and biodiversity. Working on these subjects, the educators and students often include the other forward-looking tendencies in environmental education mentioned above as getting involved politically and taking into account environmental justice, which is easier done when projects start in the immediate neighbourhood of the students and not in large anonymous structures.

By getting out of the school building into the community, doing projects in cooperation with groups and individual people from outside, the students get the opportunity to adopt life skills⁴ in the real world. In this way, they also develop a positive relationship to their community and to their school that might never have been achieved otherwise. And they have the chance to find out, that school is not an end in itself.

General View

Finally and based on my experiences in Germany, Europe and my research in North America, I want to stress that the general ideas in environment education are not very different.

Structures and terminology differ quite a lot.

The contents are quite similar, even though some aspects are emphasized stronger on one or the other side.

At this place, I quote the "core beliefs" around which the Rachel Carson Center for Natural Resources was developed. They are formulated very nicely and probably could be signed by most EE and ESD educators in the US as well as in Europe:

⁴ In the US, I found little equivalence to the discussion on competences in the (German) ESD movement. The nearest correspondence seems to be the combination of "life skills", "hands on projects" (or teaching materials, models and so on) and "environmental literacy" which together probably would describe the German bunch of competences forming the notion of "Gestaltungskompetenz".



- The key to generating attitudes of civic responsibility, collaboration, and discovery lies in taking students into the world.
- The value, depth, and retention of learning increases when it is applied to real world situations that matter.
- Experience based learning provides for the development of knowledge, skills, and attitudes necessary for successful and active participation as a world citizen.
- Non-traditional learning, whereby subject areas are integrated and arbitrary class times eliminated, facilitates active engagement for the students.

At last, I like to thank all the interesting and very helpful people I met during my visit. They facilitated the exciting experience of getting to know developments in environmental education in the US and Canada, hopefully at the eve of a new ecological era.

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