Paper by Koos de Vos, Director of the Centre for Environmental Education in Arnhem, the Netherlands during the Benelux conference "Educational farms and Sustainable Development". Larochette, Luxemburg, 8 - 10 November 2000.

What is sustainable development?

If you look up this term on the internet, you'll be amazed at the result. The search engine I used produced 49,697 pages on 15,853 different sites that all had something to do with sustainable development! Your first conclusion is that sustainable development has many facets. Your second conclusion is that you won't get through the 15,853 sites in one piece. I only saw a fraction of them and even that cost me a whole afternoon. But, even so, I learned a lot.

Is it possible to define sustainable development? The idea of sustainable development was launched by the United Nations Commission for the Environment and Development in 1987, then under the chairmanship of Mrs Brundtland, a former Norwegian prime minister. During the UN Top Conference in Rio de Janeiro of 1992, it was defined as follows:

> *Development that meets the needs of the present generation without jeopardising the needs of future generations*

I also found a simpler definition:

> *Guaranteeing a liveable world for future generations*

This is not easy. At the beginning of the last century, out planet was home to some 1.6 million people. Now, only 100 years later, there are 6 billion. And growth continues to be explosive. And this and future generations will have to make do with what's available now, there will be no new resources in the future! Resources are almost all irreplaceable. Only solar energy (and its derivative energy sources such as wind and water power) can sustain unlimited use. Apart from which you can argue over what the standard for "liveability" should actually be. In any case, one thing is clear: future generations have a fundamental right to expect to be able to provide a number of basic needs: food, housing, energy use, health, etc. These matters cover many areas, not just environmental issues in the narrow sense. That's why I found so many hits on the internet when it came to sustainability: such as climate change, sustainable building, sustainable entrepreneurship, sustainable energy, mobility, standards and values, education, eco-markets, dividing things fairly, fighting poverty, health, recycling, sustainable agriculture, eco-quality mark, eco-label, the "green" school, sustainable tourism, sustainable production, eco-efficiency (minimising environmental impact), sustainable consumer items, environment and nature.

So, sustainable development is extremely complex. In fact, it seems to cover everything in our society and nothing specific. It is perhaps nothing really special.... What's more, there's a tendency to just group everything under sustainable development. You imagine you have coined a useful definition, but by using the term sustainable development in this way you negate its meaning..... What should we do then? Let's try and look for the core, something tangible. Keeping our theme in mind, something that will be helpful to us during the next few days.

Sustainable development presupposes a certain degree of social activity. The element of care is an essential one: care for the present generation (for yourself as well), care of future generations and care of the world, the environment within which we live. This is in the interest of society as a whole.

Christiaan de Vries, director of the scientific bureau of D'66 [a Dutch political party], wrote in his essay "Regained freedom, the social dimension of sustainable development":

> "The meaning of the concept of sustainability points initially to the necessity of maintaining the ecological coherence of things"

He says that the ecological coherence of things is the prerequisite of our existence. He writes

further:

"The relationship between man and nature has been socialised and bureaucratised.

Firstly, there is the way in which we experience the effects of the state within which our environment as milieu finds itself. Think of the visual pollution of our open spaces, the noise from the motorway or the approach routes of airports, always something creating noise, chaos in the uncontrolled number of links, roads, rail, electricity cables, etc. Permanent unrest at macro and meso level. But also at microscopic level within our bodies: exhaust fumes, energy waves, ingesting flavour enhancers, aroma and colouring agents, preservatives. We are expected to find this normal. Herbicides in fruit and vegetables. The awful state of our beef and pork. Even our chickens smell suspect. What exactly is being put into animal feed? Genetic manipulation. The Ministry says: "the amount of dioxin does not exceed the minimum acceptable level" or "the processed waste from cadavers and sewage sludge in cattle feed is not harmful, because it have been sufficiently heated". These are examples of a bureaucratised attitude to our world, our environment and nature. Everything can be explained by set technical standards and bureaucratic regulations, which can be amended when people think it‘s necessary. It has become technical. One of the effects of this is that environmental problems have been reduced to something seemingly controllable. In a nutshell: everything is under control, after all, we have standards that set permissible limits and as long as we remain within them there‘s no need for concern. What ìs actually happening? Why are we concerned?

All this does not exactly stimulate the drive for change. After all, everything is in hand... We will dream up a technical solution for an apparently technical problem. Too much energy being used? We produce low-energy lamps and super high efficiency boilers. We insulate our homes. But at the same time we fly all over the world. Just one flight to Greece and you have used up the same amount of energy it takes to heat your home for a whole year..... The solutions we deploy, if any, do not reflect reality and our actual relationship to ecological links.

We have lost our direct link with nature. What image does a child have of nature and his relationship to it? If you ask a child where milk comes from chances are he will say, "from the supermarket" or "from the dairy factory". This doesn‘t mean the child is stupid... This is what the child perceives as being the truth, his reality. Many children have to be taught that there is a relationship between nature and the cow. Perhaps they have cognitive realisation. But this knowledge means nothing to them, it‘s not backed up by their own experience, because they have no first hand affective learning/knowledge.

This is sustainable development: maintaining the conditions that promote the relationship between man and his environment, thus enabling him to experience nature at first hand.

Learning for sustainability

The previous chapter leads us to "learning for sustainability". The word learning refers to human development, to learning processes, to educational aspects.

In general, learning for sustainability is: learning to safeguarding a liveable world for future generations.

But how do we put this into concrete terms?

We have established that sustainable development is a social process initially based on the concept of care. Care for the present generation, future generations and the world in which we live. We have also established that experiencing nature at first-hand is important to the discovery of the direct relationship between man and his environment. Actively pursuing this relationship kick-starts sustainable development. I will now go into these three aspects in more detail:

1. experiencing nature at first-hand
2. care
3. active pursuit

ad 1. Experiencing nature at first-hand

Experiencing nature at first-hand makes it clear how things as linked ecologically. However, this link it too complicated for young children to understand. They should not be confronted with it. What‘s more, confronting them with environmental problems works counter productively. When children and adults have intellectually and spiritually matured, their first-hand experience of nature will give them a positive grounding to understanding these problems. So don‘t start with a negative problem approach. This type of doom and gloom thinking from the ‘70s and ‘80‘s has had its day. This approach only created feelings of uncertainty and fear. This is disastrous for children who are still learning. It leads to apathy in adults. It‘s all about positive learning experience. Being involved with nature and your environment is fun, interesting, exciting and relaxing.

The English writer Davis Attenborough once wrote: "Amusement without education is stupid and information without amusement attracts no-one. You have to search for the perfect amalgam between the two. Education is amusement."

In her book "Nature in the hands of children", Prof. Magadant wrote about environmental values. She refers to the most important environmental value for children as enticing nature. In a natural environment you can climb trees, build huts, jump over ditches, pick flowers, collect all manner of things; run, play hide-and-seek. In short, play! Nature invites you find out about things. You see beautiful and interesting things, you can relax.You gain meaningful experience at first-hand, enabling you to build up an intimate relationship with your natural environment.

This also applies to adults. Especially in adults, it is important to be clear how this relates to you. Adults tend to see themselves as isolated phenomena within the environment. Adults have to realise that solving environmental problems and opting for sustainable activities is in their own interest.

I think the time is ripe for people to experience a personal relationship with nature. There is an increasing tendency towards being more one with nature. This is reflected in magazines such as Seasons and Outdoor Living, holidays in bungalow parks in the country (Centre Parks e.g.), the development of new natural environments with walking and cycle routes, etc. This trend is already being commercially exploited. No matter how you feel about it, the "market" is developing in this direction.

ad 2. Care

"Caring for" is one of the most important aspects in education. It stimulates social development: you are working for the good of others. It develops self-confidence. It also develops a feeling of responsibility, both crucial to sustainable development. "Caring for" also prompts actions, you‘re doing something. It offers possibilities for activities. In our case it‘s also an important point in self discovery, it‘s also about you yourself, looking after yourself.

ad 3. Active pursuit

Learning without any possibility of being able to actively pursue it is pointless; it leads to nothing. You have to be able to do something. We saw this earlier with "care". And this "doing" has to be close to home, if possible within our daily lives. This means that opportunities to take action must be linked to learning situations and experiences. For example: if you want to teach people to separate their rubbish, you have to make things as easy as possible for them by providing easily accessible separate containers. Don‘t imagine that people will immediately take steps to carry out desirable actions, even if the information they received was first rate and hit home.

Well then, where better to gain first-hand experience of nature than on farms? Especially when they are set up for this purpose? The environment can be set-up to look natural and inviting. Places where children can play and explore. Basic, natural playing opportunities for children linked to such farms constitute an ideal facility. They are also full of opportunities to undertake activities. For example, opting for organic foodstuffs. Visitors will be able to taste and buy them on the spot and be appraised of sales outlets in their neighbourhood. And then there‘s the care aspect: "caring for"

is, after all, the central theme of a farm?

Sustainable development and environmental education

Not surprisingly, environmental education has already been mentioned in this article. Does this mean that learning for sustainability is environmental education? No, this would make the whole issue too narrow. Right at the beginning we established that sustainability covers a whole range of aspects. Environmental education is part of learning for sustainability. We are concerned here with a social, economic and ecological learning process. But I dare to argue that there would be no learning for sustainability without environmental education!

No single organisation can possibly deal with all three of the above-mentioned aspects (social, economic and ecological). This means working together. Networking. Everyone can do a part. Environmental education can then ask itself which aspects are closest to our field? Where are our core qualities? And: can we organise educational activities within this framework? And, more generally: within this context, which organisations can we work with from both within and outside the field of environmental education?

The role of environmental education within this context is to: contribute to the development of people‘s competencies to create sustainable development.

What, in essence, is environmental education?

From all that has gone before, it is apparent that environmental education is primarily an approach strategy within the framework of structural social issues. It is, therefore, a social activity. It‘s all about teaching people to think ecologically (ecological ground principles: how does nature work?), to think socially (how does society work?) and to point out the relationship between the two (how do I implement this?). Environmental education can help teach people to recognise a number of rules of thumb, which they can use to help determine their own standpoints and their actions. This will help them to make independent choices as to their personal actions from within their various roles (parent, employee, educator, consumer, etc.). This then becomes their own personal behaviour based on their own social goals. Not dictated from above. Not top-down, but bottom-up. Only then are actions effective and enduring. It‘s all about long-term and longitudinal processes and activities. By so doing, environmental education goes beyond the level of concrete environmental issues and policy measures laid down by government.

Isn‘t it possible then to use environmental education as an instrument to support government policy? The support approach smacks of a top-down approach and in view of the previous statement environmental education cannot be part of such a policy. But surely it‘s not possible to realise determined policy goals without the help of the population? That‘s right, but we should aim to achieve this by the bottom-up approach. After all, people who have begun to think ecologically/socially will be more inclined to choose to adapt their behaviour in support government policy goals. Therefore, also viewed from the standpoint of basic social education, environmental education is certainly one of the keys to achieving a government‘s sustainable goals.

But... these same citizens will also be critical of government decisions and goals, and be a "thorn in the side" or take on the role of a government‘s "critical conscience". Governments shouldn‘t fear this. You need citizens like these to open up a real dialogue between government and the people. Only then will policies be supported. If so desired, environmental education can play a role in this, by acting as a direct intermediary in the formation of participatory policy. We can‘t only continue to build on long-term educational processes. Time is short, pressure on the environment is increasing. We also have to think about short-term processes. We can see a favourable tendency in this field as well. People want to live healthier and better lives and interest in this is increasing. Willingness to pro-actively contribute to this is also on the increase. This is within the same context as the previously mentioned trend to live closer to nature. But people don‘t want to be told what to do, they want to have the freedom of choice. This is also an argument for a be able to make choices approach, from an I understand why standpoint. Where placing informative pressure on the target

groups is a means of speeding up choices.

But... you have to be able to implement choices. Producers must recognise economic interests. This gives sustainability and "learning for sustainability" an economic side. They are intrinsically linked, you can‘t have one without the other.

In general, environmental education increases its value to government if its various agencies keep abreast of and even become involved in concrete government plans and policy on issues such as soil, greening, energy and water use, consumer behaviour, landscape development and agriculture. Not by communicating what is contained in these documents and what governments have decided, government has its own communication apparatus for this purpose; but by insuring that such issues in general are included in educational programmes and activities as outlined earlier in this article, and to state this clearly. Each environmental education agency will opt to highlight issues that best fit their own core qualities. In addition to environmental education being a social approach strategy (the actual educational perspective), when used in this way it is an important instrument on a par with regulation, enforcement etc. So, environmental education can be embedded in the political process and politicians be held accountable for its actions!

During educational activities it is always essential to check:

- can the outcomes of these activities be made operational without requiring immediate, large-scale social change;
- do the results fit into the economic and social reality of the day; or are we just "making mischief"?

In short, do the outcomes of these activities relate to the reality of the targets groups of today? This is an essential part of learning processes, both for general and political target groups. In educational theory we refer to this as: adapting to the knowledge level of the target group.

In conclusion

The relationship to educational farms

I have already mentioned this subject. Without going into too much detail (the following speakers will do this), just a few pointers.

- Experiencing nature at first hand, the relationship between man and nature, seeing ecological links. Educational farms are equipped to provide meaningful experiences with nature, reflecting the direct relationship between man and nature, where cycles, such as ecological links can be experienced. Affective experiences within the relationship of child/adult and animal are there for the taking. Examples of the respectful treatment of animals, even if we do eat them. Care of plants and animals. Complimented by inviting and challenging pieces of nature and play opportunities. Aimed at the intellectual powers of both children and adults.
- Activities potential: caring for animals in an exemplary way and, for example, small organic plots that can be recreated in visitors‘ own gardens, consumer behaviour in the field of organic food stuffs and sustainable products, literally helping with the care of animals, children‘s vegetable garden, relationships with allotment holders. An educational farm must be hamds-on (but ensure it is attuned to everyday behaviour at home).
- Demonstrating and allowing visitors to experience ecological, organic operational-management. No BSE, organic feed, no superfluous medicines; showing a direct link between our own food and our own personal health.

And remember David Attenborough: Have fun! A visit to an educational farm should be a celebration, pleasurable, full of enjoyable interesting experiences.....

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