

## **Education and public awareness about climate change Review of principles and existing initiatives**

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Ladies and Gentleman,

Before coming to today's topic, I would like to introduce myself. My name is Nathalie Semal and I work at the « Fondation Universitaire Luxembourgeoise » or FUL, in Arlon. This institution is devoted to environmental research and teaching. My job consists in assisting the academic director Mrs von Frenckell for organizing FUL's teaching programs, and in taking part as a trainer in environmental training programs for enterprises. I am also member of Grefe, which is FUL's environmental education research team, led by Professeur Louis Goffin. So this communication also aims to give you some return of our experience in environmental education.

The 6<sup>th</sup> Article of the Convention on Climate Change stresses the need for educating, training, and enhancing public awareness on this topic. I suggest to review some existing initiatives at first, secondly to look into proposals and options adressed to Subsidiary Body for Scientific and Technological Advice, and finally to draw conclusions and give some principles about education strategies to be implemented.

### ***Review of some existing initiatives***

Reviewing existing education and awareness initiatives in Belgium and some EU Member States, we firstly pointed out the abundance and the diversity of actions related to environment as a general theme, including climate change. This shows how lively and creative is the public pro-environment movement.

**Fewer actions are especially dedicated to climate change**, if we compare with other specific topics, like water pollution for example. However many actions are taken to promote energy efficiency, without clearly linking this issue to climate change stake.

We noticed that main actors of environmental awareness are

- schools, by integrating environmental issues in curricula and by setting up side-activities
- environment and environmental education associations, by organizing and supporting plenty of projects, assisting schools, developping websites,
- national and international institutions, by setting up awareness campaigns, enhancing information access and allowing financial aids
- medias, by communicating on the climate change threat.

But it is urgent to enhance **national and international coordination** in order to integrate these booming public awereness actions in a common framework.

Another key point is that raising people awareness by flooding them with information is not enough to change their behaviours. So what else is needed? I will try to answer this question.

Most initiatives only focus on displaying information to people. **Informing people on climate change is important, but is not enough to gain public participation and to modify behaviours.** As well, information quality and consistency has to be improved. Medias, for example, are a corner stone of current public awareness, because they reach a wide audience. However, they provide auditors a mosaic of relevant but incomplete, simplistic, contradictory and sometimes unaccurate information, as they have to select the most striking elements. These elements are mostly disagreement points, that cannot raise people motivation.

We also could find many interesting websites related to climate change. They basically feature a panel of concepts required to understand climate change issue. Some of them also describe either a range of general behavioural solutions, or concrete but limited projects. Though they enhance information accessibility, this accessibility depends on individual information seeking, and therefore, **websites impact is limited to already aware people.**

Moreover, **medias and websites fail to develop** various **skills** required to enable people to change their related behaviour<sup>1</sup>. As a result, people are puzzled: though they are aware and worried by climate change predicted effects, they feel unable to cope with the problem. **They see climate change issue as an experts' problem** : they believe choices and solutions don't belong to them, they are in expert's hand. Changing this point of view and inducing people to make the issue their own is an important challenge.

At the contrary, I would like to point out an interesting awareness campaign, aimed at schools, organizations, citizen communities and individuals. It has been carried out jointly by several environmental defense associations in Germany, Bulgaria, Danemark, Spain, Estonia, France, Italy, Lituania, Luxemburg, Macedonia, the Netherlands, Poland, Portugal, Roumania, Sweden and Switzerland, with European Commission support. In Belgium, only Flanders intend to join it on November 2001. The campaign is named in French "le pari contre l'effet de serre", - I'm sorry, I couldn't find the English counterpart - that means the bet against greenhouse effect. Its purpose is enabling people to modify some daily behaviour to save energy, as described in a booklet, and then to calculate how much they cut down their own greenhouse effect gases emissions (<http://www.thebet.org>).

Three lessons can be drawn from this experience:

1. Beside information and knowledge, this campaign gave people action strategies.
2. These strategies focused on daily behaviours, and namely link energy saving with fight against climate change. According to Mrs Raphaëlle Gauthier (Réseau Action Climat-France, the net of associations like WWF, les amis de la Terre, that set up this project), the most amazing feature was how easily these behaviours were implemented.
3. People got a feed-back of their action: they were able to assess their own action by counting their emissions and a website communicated global greenhouse effect gases decrease results. They could ajust their action at an individual level, and assess the positive global impact of the collective action they were part of.

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<sup>1</sup> AUE, CESE (2000). Actes du Colloque de l'Association Universitaire pour l'Environnement, en collaboration avec le Centre d'Etudes Economiques et Sociales de l'Environnement. « *L'éducation à la consommation durable. Quelle politique pour quelles actions ?* » du Mercredi 22 novembre 2000. ED. Walter Hecq.

To summarize, **the main quality of this campaign is that it included the different steps of a learning process: building knowledges, skills and strategies, testing them and assessing them.**

Participants were mostly schools, and the project failed to attract other actors. Therefore, its impact was limited. This emphasises the importance of **fitting projects to target publics.** Actually, target publics of most projects are not well defined. They often try to reach the widest possible audience whereas educating means closely centering on learner's specificities. More specific projects, aiming at a single target public, are to be set up.

The exception is teaching sector: messages, knowledge, concepts, skills and methods are adapted to each pupils' age bracket.

However, according to a survey<sup>2</sup> on « Energy awareness initiatives at school », carried out by Apere (Association pour la promotion des énergies nouvelles – Association for the promotion of renewable energies) on behalf of Energy Division of Environment Ministry of Région Wallone, the greater part of the environmental education action focus on 6-to-12 yearold children. By educating children, teachers hope to indirectly reach their parents, and it works! But the impact is difficult to assess, politics shouldn't rely on this side-effect. What's more, even if children environmental education is often of good quality, its impact will be perceptible when they are adults, and able to make their own decisions. Do we really have time to wait until that?

Therefore, beside young children education, we urgently need to educate and train those who will be decision-makers in 5 to 10 years. That's why more emphasis should be put in **improving environmental education in secondary school and university programs.** The greening of curricula is an interesting trend coming from the United States, and spreading to Europe. The Essence network, a European Socrates thematic network, aims to share experiences on this topic ([http:// www.vsn.nl/essence](http://www.vsn.nl/essence)). In Belgium, this movement is raising, with Flanders ahead.

But **greening of curricula** is difficult to be implemented as current education organization tends to separate branches of learning though environmental issues – and climate change issue in particular - are interdisciplinary. Our students are a good example. This year, FUL gather students from 15 nationalities, interested in environment issues for they chose to attend a master degree program in Environmental Science. Nevertheless, their environmental literacy is poor: at best, scientists have scientific knowledge about some specific scope. But a few ones have a global understanding of the issue. This emphasises that a special attention should be paid to integrating environmental subjects to every curricula as well as putting interdisciplinary activities on the agenda.

Finally, **today's decision-makers form a target public rarely mentioned.** Some initiatives are aimed at them, like World Business Council for Sustainable Development campaigns promoting eco-efficiency and energy efficiency (<http://www.wbcsd.ch>). But these campaigns only reach largest enterprises, though most smaller ones would be appealed by possible financial gains associated to energy saving measures. Environmental management system spreading could be an effective mean to raise enterprises awareness about climate change.

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<sup>2</sup> APERE (2001). *Etude exploratoire. Sensibilisation Energie dans l'Enseignement*. Rapport Final. Etude réalisée par l'APERe pour le compte de la Division énergie DGTRE – MRW. Mai 2001.

## ***SBSTA proposals and options***

This review highlights some of the difficulties about an effective climate change awareness campaign. Parties, intergovernmental organizations and non-governmental organizations listed in preparatory documents (FCCC/SBSTA/2001/6 and FCCC/SBSTA/2001/6/Add.1) a range of relevant needs relating both to campaign objectives and means. We should make the difference between these two things.

The **general objectives** are listed in the document FCCC/SBSTA/2001/6 as category 2 and 3: public awareness of climate change and public participation. As I mentioned before, the challenge of public awareness enhancement and public participation is to modify people behaviour. At first, we have to identify target publics and for each one, which behaviours should be promoted.

Secondly, each behaviour must be related to precise **specific objectives**<sup>3</sup>. We have to think about:

- which knowledge (scientific concepts, vocabulary, data, proceedings)
- which know-how (being able to understand directions for use)
- which strategic skills (being able to identify and to analyse a problem, to find, implement and evaluate a solution, understanding the consequences of one's own action)
- which values (responsibility, autonomy)

are necessary to behave in a way that reduces one's greenhouse effect gases emissions.

The third step is to **set priorities**:

- What has to be done urgently and what takes time, or can wait? We agreed that implementing behaviours that can lead to emission decrease is a priority.
- What are these behaviours? Mainly energy consumption reducing behaviours, especially fossil fuels consumption. They range from isolating houses to changing the "just-in-time" management rule!
- Which target public has to be aimed at first? Public whose activities have the most significant impact: industry, transport sector, today's and tomorrow's decision-makers, actors involved in educating and training others.

Fourth is **to assess existing resources and means, and to choose how to allow them**. Development of websites, information and education products, greening of curricula, communication plans and so on, are important elements of the whole awareness campaign strategies. But these means will be more effectively used if actors understand clearly where they want to go to. Moreover, clear goals will enhance global awareness action consistency.

It seems that some important means are missing in these documents : guide-lines and means to evaluate projects results, and means to give people a specific feed-back of their own actions, even if some general results are communicated by governments or organizations.

**Feed-back is a key point to motivate people and to enable them to adapt their behaviour.**

Finally, beside information sharing, we would like to promote **experience sharing**, for we pointed that much more than information is involved in public awareness. This sharing should take place between authorities, but also between all actors involved in climate change public awareness raising. A website devoted to support climate change educators and trainers

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<sup>3</sup> De Ketele, J.-M. et al. (1996). *Guide du Formateur*. Deuxième édition. Bruxelles : De Boeck Université.

actions, where people could express themselves, tell their successes and difficulties, ask questions, search for advices could be the missing link.

From these different elements, an operational awareness and training program can be designed. However, this review is only a first approach. It is necessary to deepen needs analysis and strengthen strategies. Schools, universities and environmental education associations experience could be of great help.

### ***Ten principles for climate change public awareness***

Which principles for climate change education and awareness strategy can be derived from all above and from our own trainer and educator experience?

1. The first one is to **start from existing initiatives**. We can strengthen links between climate change awareness campaign and existing environmental or energy saving actions. We can improve information quality and diversify projects to fit to different target publics. This strategy will be time and money saving, and will allow continuation. This is important to avoid to discourage people and because learning process is more efficient when it is based on people knowledge and skill level.

2. The second is to **settle a national and european coordination** between the many actions and projects. As well, a common framework including objectives, target publics, priorities and resources is essential to enhance consistency, quality and diversity of actions, and to avoid putting resources in the same kind of projects. The coordination must be fully effective regarding action implementation, as well as action evaluation, and sharing of experience and information.

3. **Educating and training our future decision-makers and politicians** are priorities. The greening of curricula must be understood as quantitative and qualitative improvement: it includes

- spreading environmental issues to non traditionally related curricula like economical sciences, social and political sciences, architect schools, lawyer degrees, teachers and so on
- organizing interdisciplinary teaching
- focusing on the second part of secondary school and higher education.

4. **Actors whose activities may have an important impact upon climate change issue** should be aimed by specific awareness campaign, in link with other environmental projects or constraints. The challenges are to motivate them and to develop their strategic and specific skills. For example industrial world and transportation sector, have long faced environmental problems and often implemented energy saving actions, among other environmentally friendly actions. Links with environmental management, best available technologies, laws, green market should be highlighted.

5. **Climate change awareness raising must include short term (5 to 10 years horizon) and long term (20 years and more horizon) strategies.**

**Short term actions focus on what is most likely to lead to greenhouse effect gases emissions curbing.** It aims to educate and raising awareness of

- actors whose activities have an important impact on climate change, and their main partners: decision-makers, industry, transport sector actors, farmers, consultants, research departments, environmental auditors, and so on
- tomorrow's decision-makers by greening curricula
- actors whose activities are related to education and awareness: teachers of course, but also association members, journalists, consultants, advertising companies and some services companies
- citizens : general awareness campaign should keep on promoting energy saving actions but these daily behaviours should be more clearly linked to climate change issue. Beside this, a long term awareness action, focusing on climate change stakes that are not yet perceptible, is required.

**Long term actions** include

- **educating young children** to behave in a responsible and environmentally friendly way
- building foundation of **a change in adults' mentalities**: the process by which people integrate, and make their own new knowledges, know-how, skills, and values takes time. Therefore, climate change education strategies must be followed up during this long period.

6. No objective will be reached without **allowing the right means and resources** (including financial ones) **to the right projects** on a long term basis. Some new partnerships (enterprises, universities, non environmental associations like sporting clubs, internet-clubs, scouting groups and other youth clubs and so on) could be sought.

7. The **campaign must be realistic**: promoting a behaviour without providing or creating an appropriate context is useless and even dangerous. For instance, inviting people to use public transport and not providing them frequent, rapid, cheap and reliable public transport led to public distrust in environmental policies. Surveys showed that after that kind of mistake, getting back citizen trust is a difficult, dear and long process. Climate change education and training action must therefore be part of wider and integrated European and national policy.

8. Special attention must be paid to **information quality and feedback**. Especially, uncertainties and disagreement points about climate change causes and effects shouldn't be erased. Climate change effects are not yet perceptible for Northern people, and making them aware of this reality is difficult. A way to reach this goal is to link greenhouse gases emissions not only to climate change, but also to urban pollution and the rise of respiratory problems they may experience.

9. More than being promoted, **experience sharing** should be organized within EU and with developed and developing countries. Respect for cultural and contextual differences is needed.

10. Motivating people is not compelling them. Public participation means treating citizens like **responsible partners** and allowing them some latitude to make their own decisions. Some incitative measure should be taken to promote and reinforce "right" behaviours.

## *Conclusions*

My conclusions will be very short. Many of these principles are common sense, but many environmental education experiences have showed they are seldom followed. Designing a

good awareness campaign requires deep thinking, hard work, much time, much money and cooperation between many actors. Even if these conditions can seldom be found together, good principles and strict designing methods offer a useful framework to reach our goals.

I hope I have not been too long and I thank you very much for your kind attention.

Thank you.