

Case Study 5

Ilmari, a climate change and energy information programme for schools

Finland



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Changing Behaviour



Work package 2

Development of the conceptual model: Analysis of success factors,
underlying models and methods in target group interaction

Case Study 5:

Ilmari, a climate change and energy
information programme for schools, Finland

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Content

Summary of the case	5
Step 1: Context of DSM programme	6
Step 2: Focus of DSM programme	7
Step 3: design of programme	8
<i>What lies at the foundation of the programme</i>	8
<i>Research conducted on target group</i>	8
<i>Other research conducted before implementation</i>	8
<i>The intervention methods/instruments and activities used</i>	8
<i>Participation</i>	9
<i>Communication</i>	9
<i>Learning, evaluation and monitoring</i>	9
<i>Link to other programmes and policy</i>	10
Step 4: process of programme.....	11
<i>Interaction between the different participants</i>	11
<i>Reaction of the project manager to issues/problems</i>	11
Step 5: outcome of process	12
<i>Objectives/goals/outcomes</i>	12
<i>Effectiveness</i>	13
<i>Social learning</i>	14
Step 6: analysis and conclusion	15
References.....	16

Summary of the case

Ilmari, a climate change and energy information project, aims to enlighten primary, secondary and high school students and teachers about climate change and their role as human beings; young people shall be involved in conversations and receive support in their projects. During five years, there have been over 800 school visits all over Finland. 30 000 students have heard about their issues and there has been training for two hundred volunteer climate envoys. According to the evaluation report in spring 2005, school visits have been successful in strengthening young people's awareness. 38% of secondary school students and 18% of middle school students have become more aware about the climate situation. Half of the students considered themselves to be informed enough to work against the climate change. Since then, experiences from this project have been used in other school visiting projects due to the successful concept of Ilmari and how NGOs work together.

The Ilmari project has been financed by the Ministry of Trade and Industry under the Finnish Climate Change Communications Programme 2002-2007. The latter is a programme implementing the Finnish climate change strategy. During the autumn 2006 the programme was also a part of the EU funded *Make a change* programme.¹ Ilmari project has won several energy and climate change communication prizes, being e.g., the winner of the national Energy globe national award in 2006.² Currently the school envoy activity developed within the Ilmari project continues as an established part of the activity of the organizations that were involved in the Ilmari project. The work continues on the basis of more provisional funding, mainly from the budget money of the participating organizations, but new concepts of funding and activity are under development.

¹ <http://www.ilmastonmuutos.info/eng/cfmldocs/index.cfm?ID=1338>.

² See, <http://database.energyglobe.info/listProjects.aspx?id=8987>.

Step 1: Context of DSM programme

The Finnish Climate Change Communications Programme that started in 2002 was the most important 'operational context' of Ilmari. The Finnish Climate Change Communications Programme (ILMU) 2002-2007³ has been an important part of Finland's national climate strategy. The programme has aimed to increase awareness of climate change, its impacts, and ways to mitigate them. The culmination of the Finnish programme coincided with an EU-wide public information campaign. The programme was coordinated by Motiva Oy and implemented jointly by the ministries of Trade and Industry, Transport and Communications, Agriculture and Forestry, and the Environment, as well as the Finnish National Board of Education.

A total of 62 projects have been funded through the ILMU-programme, which has had a total budget of some 2.5 million euros. When the Finnish Climate Change Communications Programme was designed, it was decided that not only energy issues but all sectors relating to climate change should be included. The emphasis was put on the consequences and measures of mitigating the process of climate change (Kurki 2008, p. 9). It was also decided that the key message of the campaign is that the mitigation of climate change is on everyone's responsibility (p. 10).

During the programme's final year from June 2006, a special campaign *Tee muutos (Make a change)* was run across Finland in collaboration with the European Commission'.⁴ The EU's Climate Change Awareness Campaign provided campaign's slogan, layout and materials for partners along Europe. The EU's campaign's website was provided in 19 languages and it was built with the purpose to educate individuals on the factors affecting climate change as well as to influence them to make a contribution to stop its progression. The involvement of the EU helped to raise the profile of the Finnish campaign.

The ILMU-programme was initiated by a resolution of the Finnish parliament and therefore it gives a high legitimacy to the activities of Ilmari and other similar projects. On the other, this increases the competition between different the campaigns, and now, when the programme has been finished, new innovative forms of activity have to be invented to attract additional funding. It seems also that a linkage to a broader programme does not necessarily guarantee any additional value. This happened with the integration of Ilmari with an EU-wide campaign, which did not help much despite providing a higher visibility through the EU-wide project logo.

³ <http://www.ilmastonmuutos.info/eng/cfmldocs/>.

⁴ <http://www.ilmastonmuutos.info/eng/cfmldocs/index.cfm?ID=1338>.

Step 2: Focus of DSM programme

In the beginning of 2000 three environmental organizations were doing quite similar work around climate change issues. They had accumulated knowledge of climate change issues and therefore they started to wonder how they could share and distribute their knowledge at schools. None of them would have had enough resources to do school campaigns alone. It was this 'practical' problem and interest to combine efforts and build on previous campaign work that became the key questions underlying the Ilmari project. This questions was raised when the three environmental organizations were conducting so called 'ilmasto.org' project.

Ilmari was started as a demand oriented project: many schools were asking the members of the environmental NGOs to visit schools. On the other hand, there was a definite limit for providing such visits, due to the high number of (potentially) interested schools. An additional problem was the schools did not have financial resources to pay for the school visits.

When the Finnish Climate Change Communications Programme started in 2002, the three environmental organizations decided to apply funding for 40 school visits. Financiers' response was, at the first round of application, that the basic idea of Ilmari is valid, but there was not a sufficient plan on how to make contacts to schools. However, since there was a simultaneous application for climate change education by a youth organization called Youth Academy⁵, the financiers recommended that those two applications should be combined. Thus, the Ilmari programme became a joint programme run by Dodo ry., WWF Finland, the Nature League and the Youth Academy.

In the next round of application the project was based on the idea that the environmental organisations that were involved would provide the content, and the youth organisation that was involved would take care of the contacts to schools. This proved to be a successful combination.

Another important starting point for Ilmari was that in the beginning of 2000 there was not much attention neither in the national school curriculum nor in school books to the issues of climate change; in the cases where such issues were treated, there was a strong emphasis on natural scientific questions. Therefore it became the basic idea of the Ilmari project to discuss the means of how individuals and pupils can act against climate change through their own choices and actions.

Theoretical ideas did not have a role in the initiation of Ilmari project, but rather, as the coordinator of Ilmari project who was interviewed states, "there was a high confidence by the members of the environmental NGOs that they had better knowledge of the climate change issues than teachers had". There was also some successful experience from school visits, e.g., by Dodo, one of the consortium partners, who had organized school visits and discussion on the issue of tropical forests at schools. Therefore another starting point was the belief that a behavioral change can best be achieved by face-to-face contacts and communication, which is also a basic principle of many NGOs.

⁵ (The Youth Academy is a co-operation organisation of major Finnish youth and sports organisations, promoting possibilities for young people to create activity of their own)

Step 3: design of programme

What lies at the foundation of the programme

Research conducted on target group

At first there was very limited understanding of pupils' interests and level of knowledge concerning climate change. Since previous school visits had received positive feedback, however, this strengthened the view that climate change is an issue of which all Finnish people should have the right to be informed on. When the project was initiated, more systematic work for the clarification of existing curricula through desk-top research and interviewing teachers started.

In the beginning, the Youth Academy designed the basic structure for visits and an interface for ordering school envoys. Because there are big difference between different schools and groups of pupils, it was considered to be the responsibility of the school envoys to decide upon what is the appropriate way to teach and organize the lectures.

The Youth Academy took care of the contacts to teachers, because it had an existing contact network available. Their contact network covered teachers from a high proportion of Finnish schools. The 'rule' of marketing the school envoys was to find a balance between demand and supply of the envoys. Only at the very beginning there was a need for additional marketing (beyond normal delivery of information through Youth Academy's contact network), which took place through direct telephone contacts.

Other research conducted before implementation

No serious 'risk scenarios' were conducted before the implementation of the project. The fear that the project team had, however, was that "nobody wants to hear about our issue", and that their marketing will fail. They also worried whether enough envoys can be recruited. None of these risk scenarios were realized, not even at the beginning of the project.

The intervention methods/instruments and activities used

Several types of activity and intervention methods have been applied in Ilmari, the core activity being the climate change envoys. At the beginning of the Ilmari project also other activities were in an important role. Ideas for climate change related *school projects* - such as writing a letter to a minister, or writing and playing a theatre piece - were central at the beginning. It was the desire of the Youth Academy to arrange such extra curriculum activities. A guide-book for such activities was made available on the web pages. Little by little the role of the school projects diminished, however, because the theme of climate change did not prove to be stimulating enough for creating plays or other performative activity. Instead, since the school envoys have been very popular, their role increased during time.

One product of Ilmari is a computer game (role game on climate change negotiations) that is freely downloadable from the web page. The game has been played more than 17 000 times, and it has been used in the marketing of the Ilmari project. A disadvantage of such a product is, however, that it lasts only for a couple of years before becoming obsolete in terms of design and technology.

A radio play to be used as a 'morning opening' broadcast at primary schools, was produced as a new element of Ilmari in the spring 2007. (It was a requirement of the Sampo bank donation

that some activities should targeted at primary schools.) There has been a high demand for this kind of product, since the play was downloaded from the Ilmari web pages more than 2000 times during the its month.

There have not been special rewards for the pupils participating in Ilmari. This is a type of activity that may interest some business companies, and since there are now negotiations with them, this may be a future direction of Ilmari activity.

Participation

Ilmari has been effective in building co-operation between and among voluntary organizations and national authorities. The single most important feature is that the project structure involves co-operation between three environmental NGOs and a youth organizations. This structure allows that partners can combine their strengths in a reasonable way, such as WWF providing posters and other partners arranging social events in cities where they are active.

Another important issue is that the main financier of Ilmari has actively participated in the meetings of steering group, thus increasing the relevance and continuation of the project.

Communication

Ilmari has only an informal 'communication plan'. Related activities include an annual press release; the Youth Academy also keeps regular contacts to schools through its networks. The activities of Ilmari has received high media attention, however, and several hundred newspaper and magazine articles have been written on it, and its happening have been broadcasted in several TV and radio programmes. The key media events have been archived by the Youth Academy as well as the Nature League.

There were not difficulties in getting schools informed and interested in Ilmari activity, because teachers were aware of the insufficient level of climate change education within the school curriculum. Only at the beginning there was some special marketing of the school envoys through telephone marketing, but quite soon it happened that not such marketing was necessary. For example, while only 40 schools visits were planned to be visited during the first year, over 100 visits were actually done.

Learning, evaluation and monitoring

There are several forms of feedback from participants to the Ilmari project. This include a questionnaire that is sent annually to teachers involved by the Youth Academy. All school envoys are also asked to write down their impressions of the visits by one or two phrases. The only time that pupils have were asked about their opinions was in the context of the evaluation report and MA thesis by ms. Lanttu. Limited financial resources has been the barrier for more systematic evaluation.

In general there has been very little negative feedback. A minor negative issue is that the system through which the school visits are ordered is complex. (There are regional coordinators to whom the Youth Academy delivers an order from schools; and the regional coordinators then arrange the local school envoy.) Another occasional problem has been that some of the school envoys have been telling 'original' or out-of-the-fit stories. This is a problem, because trust is the key point in recruiting school envoys and organizing activities.

Ilmari has been evaluated both in the contexts of the Finnish Climate Change Communications Programme and by a Finnish student of education, Sinikka Kunttu, who wrote her MA thesis on this subject. The coordinator of the Ilmari project says that especially the latter

evaluation has been useful in giving insights on how pupils think about climate change and energy issues, and how they have received their discussions and other activities such as games and school projects.

Link to other programmes and policy

The Finnish Climate Change Communications Programme (ILMU)⁶ has been an important part of Finland's national climate strategy. The programme has aimed to increase awareness of climate change, its impacts, and ways to mitigate them. The culmination of the Finnish programme coincided with an EU-wide public information campaign. The programme was coordinated by Motiva Oy and implemented jointly by the ministries of Trade and Industry, Transport and Communications, Agriculture and Forestry, and the Environment, as well as the Finnish National Board of Education. A total of 62 projects have been funded through the programme, which has had a total budget of some 2.5 million euros.

When the Finnish Climate Change Communications Programme was designed, it was decided that not only energy issues but all sectors relating to climate change should be included. The emphasis was put on the consequences and measures of mitigating the process of climate change (Kurki 2008, p. 9). It was also decided that the key message of the campaign is that the mitigation of climate change is on everyone's responsibility (p. 10).

During the programme's final year from June 2006, a special campaign *Tee muutos (Make a change)* was run across Finland in collaboration with the European Commission's EU-wide programme.⁷ The involvement of the EU helped to raise the profile of the Finnish campaign. The EU's Climate Change Awareness Campaign provided campaign's slogan, layout and materials for partners along Europe. The EU's campaign's website was provided in 19 languages and it was built with the purpose to educate individuals on the factors affecting climate change as well as to influence them to make a contribution to stop its progression.

⁶ <http://www.ilmastonmuutos.info/eng/cfmldocs/>.

⁷ <http://www.ilmastonmuutos.info/eng/cfmldocs/index.cfm?ID=1338>.

Step 4: process of programme

Interaction between the different participants

Reaction of the project manager to issues/problems

Since its beginning the Ilmari project aimed to increase pupils knowledge and understanding of the climate change (i.e., information), and to motivate and help pupils to see what they can influence through their individual and collective choices (i.e., empowerment). During the years more emphasis has been given to the latter target, because general consciousness of the climate change has steadily increased and schools books are better updated on the issues of climate change.

The funding through the Finnish Climate Change Communications Programme has been in one year's periods, because it is the programme is for delivering 'seed' funding for new projects in the area of climate change communication. However, the managers of Ilmari have been able to demonstrate the success of the project through various evaluations, and therefore the decision has been taken, on a year-by-year year basis between 2002-2007 to give it an extra year. After the year 2007, the activities of the programme have continued on the basis of more provisional funding concepts, mainly from the budget money of the participating organisations. The project managers have 'fiercely' searched for new funding, but only with limited success: new donations include, e.g., a grant of 20 000 € from a Finnish bank Sampo as well as grants of 5000 € by the National Board for Education and the Ministry of Environment. As a comparison, the annual budget of the programme has been maximally 35 000 € and the minimal requirement for sustaining the current scope of activity is 25 000 €. New forms of funding, including business co-operation are under investigation.

Step 5: outcome of process

Objectives/goals/outcomes

The Ilmari project was in a flagship role among the various communication projects of the Finnish Climate Change Communications Programme (ILMU) 2002-2007. In the final evaluation report of the ILMU-programme (Kurki, 2008), the whole communications programme was evaluated successful. The report states that the immediate benefits of the programme include 1) networking of the actors conducting climate change work in Finland, 2) collecting related information on a web portal and 3) raising public debate on climate change among citizens. More than 94 % of the projects that were conducted under the programme (and surveyed for the evaluation) were announced to continue their activity, and in 85 % of the cases the experiences of the programme were reported to help them build new projects. Perhaps more importantly, some 58 % of the projects were mentioned to be initiated only because of the availability of public funding.

Quite interestingly, “climate change communication” is contrasted with “energy saving communication”, which has since the beginning of 1990s been the responsibility of Motiva, an expert organization promoting more efficient energy use and accelerating the uptake of renewable energy sources, and thus implementing the Finnish government’s decisions on energy conservation and promotion of renewable energy sources.⁸ Since the Ilmari project has been among the most successful projects, one of its basic contributions is that it has helped to transform the Finnish climate change debate from expert reporting toward public debate.

Typical types of activity in school related projects were training and recruitment of climate envoys, visits to schools and various internet materials. The evaluation report stresses the effectiveness of face-to-face communication such as by climate envoys, and lists, in addition to Ilmari, two other school projects in which such communication has been successfully applied (Kurki 2008, p. 35). An important aspect of success of the programme is that the school envoys have been motivated to their work for reasons other than money.

The project has been awarded several prizes, which indicate that it can be considered a successful one.

- In the year 2005 Ilmari was awarded WWF Finland’s ‘Panda’ prize, worth of 10 000€ The jury characterized Ilmari as a co-operative project that successfully combines environmental expertise with young people’s knowledge and willingness to learn new. The jury argues that Ilmari reaches the generation of young people that will encounter the adverse effects of climate change in the future, and, by offering practical ‘project packages’ to young people, the programme helps them to discuss and work with global environmental problems. The jury also praises the programme for its co-operation between several actors and institutions, and its partners for their voluntary and continuous commitment to their issue.
- In 2006 Ilmari was the winner of national Energy Globe award. In their evaluation, the jury described Ilmari as a project involving young people in conversations and receiving support in their projects. The jury also states that during three years, there have been over 550 school visits all over Finland; 12,000 students have heard about their issues and there has been training for a hundred volunteer climate envoys. The jury also refers to the evaluation report in spring 2005 that indicates that school visits have been successful in strengthening young people’s awareness: 38% of secondary school students and 18% of middle school students have become more aware about the climate situation. Half of the students considered themselves to be informed enough to work against the climate change.

⁸ <http://www.motiva.fi/en/>.

Since then, experiences from this project have been used in other school visiting projects due to the successful concept of Ilmari and how NGOs work together.

- The climate envoys were awarded with “Roses for Environmental Education” in 2006 by the Finnish Association of Environmental Education for their long term inter-organizational activity for combating climate change.⁹ Ilmari was also among the eight best environmental projects in a competition for the Nordic Council’s nature and environment prize.

Effectiveness

Since Ilmari is basically an information and communication campaign, its role and impact in energy saving is more or less indirect. Ilmari has informed pupils and teachers through its school envoys (and supportive materials) on how to reduce emissions by every day choices, and how to save energy and select renewable energy sources. Energy saving instructions have included, e.g., suggestions to use bicycles or mopeds in passenger traffic, to use energy saving light bulbs, to lower the average indoor temperature, and more general instructions on how to find less material intensive products. Some of the project ideas have also included energy saving activities focusing on school buildings, such as pupils scrutinizing through caretaker interviews how, and how effectively, the heating systems in school buildings function.

In terms of the communication related objectives, Ilmari has been effective. Friends of the Earth Finland reports (2006, p.9) that by the end of the year 2006, more than 800 visits at schools have been conducted and 140 climate envoys trained. They also report that the success of Ilmari due to the winning of the Panda prize and the fulfillment of 500 hundred visits conducted at schools, was celebrated in Helsinki by organizing a party, in which speeches on climate change education were heard and a ‘climate friendly dinner’ was served. Friends of the Earth Finland also reports that the target group of the programme was enlarged by the climate game that was played by 17 000 visitors on the internet. New activities also included ‘climate clubs’ for which eight new tutors were trained.

Ilmari has also gained visibility in the media and public events. The programme was presented in a TV programme called ‘Buuster’ that is targeted at youths; it was included in the national theme week on climate change; and presented in several seminars, conferences and public events.

There are several reasons for the high level of interest in the activities of the Ilmari project. One important ‘argument’ for Ilmari is that the school envoys are mainly young people at the age of about 20-30 years. This is partly so due to practical reasons, i.e., most members of the environmental NGOs are rather young. In cases that more than enough voluntary school envoys have been available, younger ones have been favored. The reason for doing so is that it is easier for pupils to receive the message from the school envoys if the latter represent a close age and reference group; younger envoys can also be attributed with a degree of independence by the pupils, which makes them more responsive to their issue.

Another strength of Ilmari has been its steering group has consisted not only of people from voluntary organizations, but also people representing the relevant public authorities, e.g., the coordinator of the Finnish Climate Change Communications Programme was a member of the steering group as well as representatives from the Ministry of Trade and Industry and the Finnish National Board for Education. Even though some members of the environmental NGOs have a profile within the Green Party, Ilmari has aimed at political neutrality - this is required in order to make the programme a feasible part of the school curriculum.

⁹ <http://www.ymparistokasvatus.fi/sykse/ymp/index.htm>.

There was also an aspect of 'self-marketing'. Many teachers who had ordered school envoys to one class also did it for another class, and the same has been repeated for several years.

Social learning

The evaluation report (Kurki 2008) refers to a 'model of publicity' which presumes a four-stage cycle for any new societal problem. In the first stage of this model a problem is identified only by experts, whereas in the second stage the problem becomes visible to the broader public e.g., through environmental catastrophes, and the public becomes critical toward public authorities and starts demanding counter measures. In the third stage of this model the public debate is widespread and the public also starts understand that solving the problem also requires measures that may have an impact on individual lives, such as constriction or economic sacrifices. In the fourth and last stage of the model people start selecting and even refusing information that reminds them of the problem, because it is too threatening to them.

By applying this model, the evaluation of the Finnish Climate Change Communications Programme ILMU (Kurki 2008, p. 5) claims that media attention and public debate on climate change have peaked during winter and spring 2007. Issues of climate change have daily been reported in public media, with an increasing focus on an individual's view point: how can a citizen or consumer try to mitigate climate change through activities such as recycling, reducing energy consumption or choosing energy efficient means of transport. The changing character of climate change debate is also characterized as a shift from expert reporting of specific questions to more general debate topic of magazine programmes.

When the school visits were started, they were a new kind of concept. Nowadays sending school envoys to visit schools and talk about various subjects has become a widespread practice at the Youth Academy. Currently there are about 80 school envoys, who have been trained in a one-week training session. Ilmari operates in a nation-wide scale, which means that at least in principle school visits are arranged in any part of the country. Sometimes this causes problems, and there are cases, in which the demand in some regions has exceeded the supply of school envoys.

The evaluation report on the Finnish Climate Change Communications Programme (Kurki 2008, p.40) reports that the integration of ILMU with the EU's Climate Change Awareness Campaign raised some issues. While some evaluated that the EU wide campaign help raise the profile of the Finnish campaign, the EU-wide campaign was criticized because it did not specifically take into account different target groups, the campaigns' layout was poorly designed, and the EU campaign depicted a poor image of eco-efficient lifestyle (Kurki 2008, p. 40).

Step 6: analysis and conclusion

The five most important success factors include the following activities:

1. Co-operation between environmental and youth organizations. It was largely thanks to the coordinators of the Finnish Climate Change Communications Programme to match the environmental NGOs (producing the content of Ilmari) with the Youth Academy (providing the connections to schools and teachers through its existing contact network).
2. Another success factor is a clear design concept of the Ilmari project. While various 'side concepts' and additional activities were tested during the project, the school visits by the climate change envoys remained as the core activity.
3. Face-to-face communication on multiple levels of activity. Important arenas for the design and implementation of the Ilmari project include the steering committee of Ilmari (consisting of public authorities and NGO members), the administrative boards of the participating organizations, climate change envoys (currently 80; the total number being around 200) who have been in direct contact with more than 30 000 pupils.
4. The current high demand for climate change communication at schools. Especially during the first years of Ilmari project there was clearly a lack of climate change educational material in school books and curricula. Even though the school curricula and teaching content were gradually updated during the project life cycle, and more information on climate change was provided to pupils, the Ilmari project successfully shifted the focus of its activity from informational to more empowerment type of activity.
5. High motivation by the members of the participating NGOs. A particular aspect of Ilmari is that since the members of the three environmental and one youth organization come from rather similar reference groups and share rather similar values, this helped them work effectively (without e.g., conflicting about goals or means of activity) and gave them a high motivation to continue to work together. Because most of the climate change envoys are rather young, this has also guaranteed a sympathetic response by the pupils to which they have dedicated their messages and work.

References

Egmond C, Jonkers R, Kok G (2006) One Size Fits All? Policy Instruments Should Fit the Segments of Target Groups. *Energy Policy* 34 3464-3474.

KTM (2004). Nuorten Akatemian ja ympäristöjärjestöjen hanke ilmastonmuutoksen viestintäohjelmaan. Ilmastonmuutoksen viestintä peruskoulujen yläasteilla ja lukioissa 2003-2004. Loppuraportti 22.1.2004. (Final report on Ilmari project between 2004-2005 for the Ministry of Trade and Industry).

KTM (2005). Nuorten Akatemian ja ympäristöjärjestöjen hanke ilmastonmuutoksen viestintäohjelmaan. Loppuraportti 30.9.2005. (Final report on Ilmari project between 2004-2005 for the Ministry of Trade and Industry).

KTM (2007). Nuorten akatemian ja Luonto-liiton, Maan ystävien ja Dodon hanke ilmastokampanjaan, Ilmari 2006, Ilmastoviestintää perusopetuksen 7.-9. luokilla ja toisella asteella syyslukukaudella 2006. Loppuraportti 24.1.2007. (Final report on Ilmari project in the year 2006 for the Ministry of Trade and Industry).

Kurki L (2008) *Ilmastonmuutokset viestintäohjelman 2002-2007 arviointi*. Työ- ja elinkeinoministeriö, energiaosasto, uusiutuvat energialähteet ja kestävä kehitys. Helsinki. (Evaluation of The Finnish Climate Change Communications Programme 2002-2007.)

Kunttu, Sinikka (2005). Ilmastonmuutoshanke Ilmarin koulukiertueen arviointi. (Laadittu osana gradu-työtä)

Maan ystävien toimintakertomus 2006. (Friends of the Earth Finland, Annual Report, 2006). http://www.maanystavat.fi/online/MY_Toimintakertomus_2006.pdf

Manchester is My Planet - School Engagement Plant (2008). Application to NESTA Big Green Challenge. Application Number: 369 - Gener8tion4action. Contact: Mike Wolfe; group website: www.create.org.uk.

Internet Sources

Energy Globe Database

<http://database.energyglobe.info/listprojects.aspx?id=8987>

Motiva

<http://www.motiva.fi/en/>

Suomen ympäristökasvatuksen seura (The Finnish association of environmental education)

<http://www.ymparistokasvatus.fi/sykse/ymp/index.htm>

The Finnish Climate Change Communications Programme 2002-2007

<http://www.ilmastonmuutos.info/eng/cfmldocs/>

WWF Finland

http://www.wwf.fi/tiedotus/tiedotteet/tiedotteet_2005/pandapalkinto_metsien_fsc.html