

Communication on climate change in the Netherlands

Paper for the Greening of Industry, Cardiff, 2-5 July 2006

Dr. Judith E.M. Klostermann
Researcher at Alterra
Wageningen University and Research
P.O. Box 47
6700 AA Wageningen
The Netherlands
Tel: +31 317 474644
Fax: +31 317 419000
Email: judith.klostermann@wur.nl

Communication on climate change in the Netherlands

Paper for the Greening of Industry, Cardiff, 2-5 July 2006

Abstract:

Climate change has become one of the hottest topics in the field of sustainability. After several decades during which scientists tried to draw attention to the subject, governments are now paying attention and devoting large budgets to programmes for research and policy development in response to climate change. Examples of this can be found in California, Canada, UK, European Union and Japan. In the Netherlands, the research Programme 'Climate Changes Spatial Planning' started in 2004 with 40 million Euros to spend. Apart from initiating more than thirty research projects, a budget of about 3 million was set aside for communication with Dutch stakeholders. Why does the programme intend to communicate on this issue? I will explain the communication strategy, and then I will describe a scan of all the target groups in this strategy. Which stakeholders are already intensely involved in the debate and why? Who are not involved and why should they be? What methods and media are used in the existing communication, and what instruments would add to this, especially from the viewpoint of two-sided communication? I will try to evaluate the status quo concerning communication on climate change in the Netherlands. Also, I hope to receive valuable feedback from the audience at the Greening conference on our future plans.

1. What is happening in the climate domain

After several decades during which scientists tried to draw attention to the subject of climate change, it has become one of the hottest topics in the domain of sustainability. The event that seems to have shifted the doubts into a general belief that something needs to be done about climate change is the publication of the IPCC 'Summary for policymakers', published in 2001, stating: "There is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities" (IPCC, 2001).

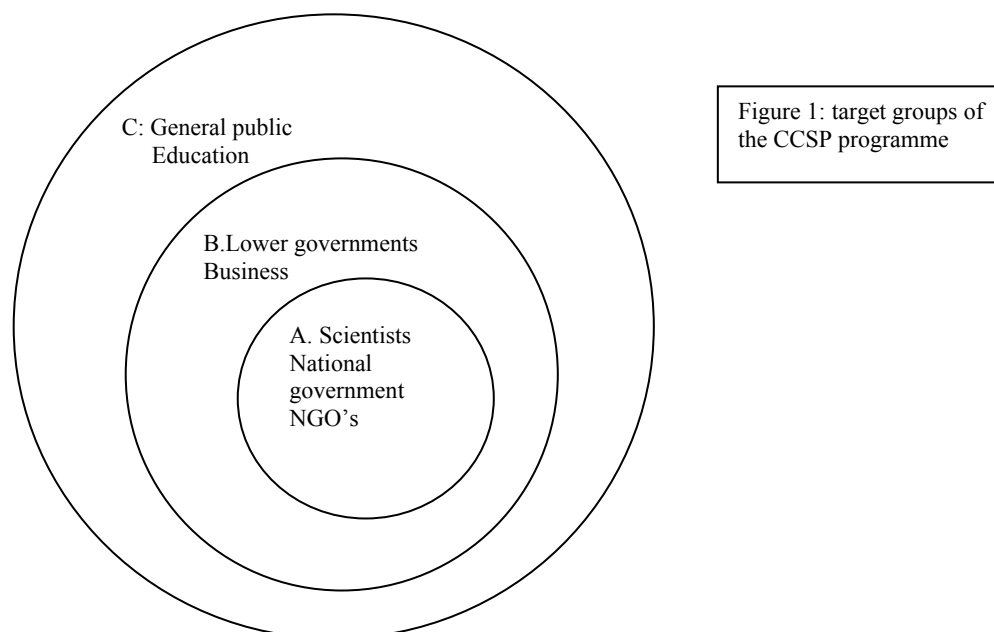
Now governments are devoting increasing budgets to programmes for research and policy development in response to climate change. Examples can be found in California, Canada, UK, Japan, the Netherlands and the European Union (for websites of these programmes, see References). At first, most of the attention was directed towards understanding the climate system and promotion of options to reduce greenhouse gas CO₂. Because climate scientists are becoming more convinced that climate change is actually happening, the attention is shifting towards adaptation.

In the Netherlands, the research Programme 'Climate Changes Spatial Planning' (CCSP) started in 2004 with 40 million Euros to spend. This programme is focusing on relations between climate change and spatial planning, for example the impacts on nature, agriculture, transport and water management. The goals of the CCSP programme are to strengthen the knowledge infrastructure on climate change, to investigate the possibilities for adaptation and mitigation, and to involve as many stakeholders as possible. To achieve the first two goals, more than thirty research projects have been formulated. Most of these are already underway. For the third goal of stakeholder involvement the programme will invest in communication activities.

2. Communication as a tool to improve research

A budget of about 3 million Euro's was set aside by the CCSP programme for communication with Dutch stakeholders such as local governments, interest groups and industry. Communication is needed in an early stage to allow stakeholder influence on the course of the research projects. Later on, the programme intends to communicate research results to a wide range of audiences, including the international scientific community.

In 2005, a communication strategy was published by the CCSP programme (Jansen, 2005). In this strategy objectives were formulated for the different target groups, depending mainly on the extent to which they already were involved with the CCSP programme. Using this criterion, three broad target group – target combinations could be identified: see figure 1.



- A. The A-circle consists of the groups that are already involved in the knowledge consortium. This circle contains many scientists, but also people from government and NGOs. They submit projects, carry out projects, are represented in the Board, the Programme Council, focus groups, etc. Here the objective is to strengthen the network and foster the exchange of knowledge.
- B. The B-circle contains the parties that have to become more closely involved in the programme: people from provincial and municipal authorities, water boards, people from the business community and NGOs. The objective is to draw these people into the knowledge consortium and initiate a dialogue with them. If the communication works, the inner circle will expand into the B circle. This is the highest priority in the communication strategy.
- C. The C-circle contains the general public and the educational community. The relationship will remain passive because of the size of this group. The

objective here is to inform the members of this group or give them the opportunity to keep themselves informed.

Based on the communication strategy, a first selection of urgent communication projects was financed. This first package of projects roughly accounts for a third of the total communication budget in the CCSP programme. They are:

- Data management for CCSP projects;
- Internal and external climate websites www.klimaatvoorruijnte.nl and www.klimaatportaal.nl;
- Organising a dialogue with industry, local and provincial governments;
- Support of the Platform Communication on Climate Change (PCCC);
- Nature Calendar: website showing changes in the yearly cycles of nature (www.Natuurkalender.nl);
- Postacademic Summer school Climate and the Hydrological Cycle.

While the communication strategy was being drafted, it emerged that the target groups and their specific needs had not been defined clearly enough. It was therefore decided that the target groups and the existing communication activities outside the programme would be surveyed in 2005. The projects to be carried out in later stages of the programme will depend partly on the outcome of this climate communication assessment.

3. Assessment of climate communication in the Netherlands

The climate communication assessment was meant to find out the communication needs of the target groups and to make an inventory of existing communication activities. A number of methods was used for the assessment:

- A round among members of the CCSP Programme Board and the CCSP Programme Advisory Council which organizations they thought important in the field of climate communication;
- A scan of the websites of all these organizations, to find out how active they were and who their target groups were;
- A general scan of the internet to check if important organizations were still missing on our list;
- Interviews and email questionnaires with most of the target groups in the strategy;
- Analysis of documents and magazines.

The whole exercise was performed in a short period of about two months as it had to serve the decision making process of the CCSP programme. Because of this, the number of interviews was limited, and many questions remained. However, the results of the different methods all pointed in the same direction and we think that the results are not far from the truth.

4. Who are communicating on climate change in the Netherlands?

First we did some research into who are already communicating on climate change in the Netherlands. We did a quick scan of the internet, and checked the websites of known communicators on climate change. Table 1 shows who they were and what their score was on the term 'climate change'. We take this as a crude measurement of

the urgency of climate change on the agenda of these organizations. According to the number of hits, the NGO's are still the absolute champions in communication on climate change. Next to them, Dutch knowledge institutes are very active, followed by several Dutch ministries. In the business sector Shell is very active, but otherwise not much seems to be happening.

Table 1: Organizations who are active in climate communication and the number of hits with the term 'climate change' on their website.

<i>NGO's</i>	<i>Score</i>	<i>Knowlegde institutes</i>	<i>Score</i>	<i>Dutch governments</i>	<i>Score</i>	<i>Companies</i>	<i>Score</i>
Greenpeace	4520	ECN	417	Ministry of Foreign Affairs - Development cooperation	194	Shell (oil, gas, energy)	351
WNF	988	WUR	378	Ministry of Transport, Public Works and Water Management	168	Rabobank (banking)	4
Netherlands Society for Nature and Environment	360	KNMI	269	SenterNovem	160	Nuon (energy distribution)	2
Friends of the Earth Netherlands	183	RIVM	216	Ministry of Housing, Spatial Planning and the Environment	118	Interpolis (insurance)	0
Milieu Centraal	48	NWO	33	Ministry of Economic Affairs	105		
Red Cross	8			Ministry of Agriculture, Nature and Food Quality	60		
COS Nederland	6						

A second way of measuring activity in climate communication was to ask our respondents whom they considered trustworthy sources of information on climate change. This resulted in the list of Table 2. Scientific institutions are generally considered as the most trustworthy sources. They are often mentioned as a general category (20x), and sometimes specific institutions are mentioned, of which KNMI (Royal Dutch Meteorological Institute) stands out.

Another important category of sources is found among governments, of which the national government is the most important. 'SenterNovem', mentioned in table 2, is a governmental agency providing advice on sustainable energy, among other things.

The 'Klimaatverbond' is a cooperation of Dutch municipalities specialized in climate change.

Table 2: Trustworthy sources of information on climate change

<i>Scientific institutions</i>		<i>Governments</i>		<i>Other organizations</i>	
Scientific institutions	20	Government	8	Media	2
KNMI	10	National government	5	Climate sceptics	2
Wageningen university	5	SenterNovem	2	LTO (agricult. assoc)	1
IPCC	4	IPO	1	Int. Energy Agency	1
Free university	3	Klimaatverbond	1	Education	1
ECN	2	Waterboard	1	Evides (drinking water)	1
University Utrecht	2	Provincial government	1		
University Delft	2				
MNP	2				
RIVM	1				
RIKZ	1				
DelftCluster	1				
TNO	1				
KEMA	1				

Some actors were mentioned as NOT trustworthy, but this is not the same for everyone. Some do not trust scientists because they may exaggerate climate problems to generate more resources for research. Some do not trust politics or climate sceptics. Municipalities and waterboards prefer the national government as a source above scientists, because they need a translation to policy measures.

Out of 29 respondents, 20 claimed that they were involved in discussions on climate change. Apparently, a lively debate is going on. Table 3 shows who are organizing these debates. They are the so-called 'problem owners', the agents that think climate change is a problem that should be on the agenda. The table shows that knowledge institutes, governments and NGO's behave like problem owners. Of the governments, the Ministry of Environment and the Ministry of Economic Affairs are the most active.

Table 3: Organizations organizing debate on climate change

<i>Knowledge institutes</i>	<i>Governments</i>	<i>NGO's</i>	<i>Other</i>
KNMI	Ministry Environment	NGO's	International organisations
CCSP	Ministry Economic Affairs	NMC	UNFCCC
Wageningen Univ.	Parliament	COS	UN / COP11
PCCC	Ministries	Thinktank Energy Transitions	Other countries
RIVM	Ministry Water Man.		Conference bureaus
MNP	Ministry Developm.		Commercial organizations
IVM	Klimaatverbond		SME
FOM Rijnhuizen	Waterboard		Press
Delft University	Water sector		
Groningen University	CDA		
Planning bureaus	IPO		
Scientists	Provinc.gov. Drenthe		

5. Two arena's for debate

Now we know who are communicating about climate change, but with whom do they communicate, and about which topics? And does this match with the information that is needed in the field? Table 4 lists who is communicating with whom.

Table 4: Who is talking to whom? The initiators of debate are in the first column, and categories of target groups in the first row.

	<i>With knowledge insitutions</i>	<i>With governments</i>	<i>With private companies</i>	<i>With citizens</i>	<i>With others</i>
<i>Knowledge institutions</i>		Ministries Political bodies			NGO's
<i>Political bodies</i>		The party			
<i>Ministries</i>	Knowledge institutes Planning bureaus Experts on climate, poverty and development	Other ministries Ministries of Economic Affairs, Water management, Agriculture Parliament Water sector			Press NGO's Other countries International organizations Emergency aid sector
<i>Lower governments</i>	Wageningen University	Water board leaders Municipalities Climate Association Netherlands	Industry Bedrijven Agriculture Council NL-North.	Citizens Youth The region	Environmental movement Highschool
<i>Private companies</i>	ECN, MNP, CCSP, WUR Scientists	Governments	Private companies among themselves		Environmental NGO's WNF Greenpeace
<i>NGO's</i>		Municipalities Water sector		Citizens	Platform Sustainable Construction

Table 4 shows that knowledge institutes talk with ministries, politics and NGO's. This matches with the discussion partners reported by the ministries: they they talk to knowledge institutes, other ministries and Parliament. They also talk to NGO's and international organizations. The topics in these debates are scientific aspects of climate change, uncertainties and how to deal with those in climate policy, adaptation to climate change, safety, flooding, and energy policy. As far as we know, citizens and private companies are not involved in these debates. The general picture is that ministries and knowledge institutes have created their own arena on a rather abstract level. They discuss the latest scientific results and the policy measures it may imply. NGO's and (large) private companies are involved in this arena every now and then.

For lower governments the picture is different. They do have discussions with citizens and private companies. They also talk to other governments, NGO's and educational organizations. They do not have many contacts with national governments or knowledge institutes. Discussion topics are energy transitions, wind energy, bioenergy, CO2 reduction, adaptation to climate change, water projects, public support for water measures, consequences for agriculture and which sites are still suitable for building houses. This also seems a separate arena, where the outcome of the debate between national government and scientists on climate change itself is a given. The discussion in this second arena is limited to implementation of policy measures. The participants prefer not to talk about the uncertainties of climate science, because this is too complicated and weakens implementation of policy measures.

Private companies have contacts with with scientists, including climate sceptics. Next to that they have a broad range of contacts: with other companies, governments and NGO's. Topics are if climate change is taking place, if action is relevant, what adaptation measures are possible, water measures, sustainable energy, CO2 reduction and CO2 sequestration.

Finally the NGO's: they discuss climate change with citizens. They also talk to lower governments and other NGO's. They are involved in both arena's: national as well as local. Topics are the impact of climate change outside of the Netherlands, sustainable construction and sustainable energy. They seem fully concentrated on mitigation and see adaptation to climate change as a defeat.

The existence of these two arena's has the consequence, that nobody discusses the uncertainties of climate change with citizens. Ministries communicate to citizens through mass media messages. The Dutch meteorological institute KNMI is trying to fill the gap with a website where citizens can ask questions. This may not be enough for the implementation of local measures. If policy measures have negative consequences for citizens, they want good answers to their questions if climate change is taking place at all, if human action is really necessary, and so on. This means that regional and local governments need to inform themselves on these matters, if they like it or not.

6. Available knowledge and remaining questions

We asked the respondents what knowledge they had on climate change. Based on their answers we found three knowledge levels:

- scientific knowledge (for example a climate researcher)
- professional knowledge (for example someone who has worked on climate policy for several years)
- lay knowledge (for example someone who is informed on climate change through newspapers and TV)

Most respondents (15 of 29) are on the level of professional knowledge, and seven are at the scientific level. Five respondents are at the lay level. We asked to interview the people involved in climate change in every organization. Five respondents at the lay level is then a relatively high number. When the programme network grows, the number of people with lay knowledge is likely to increase. This means that the CCSP

programme should provide information on all levels, also the ‘beginners’ level. We cannot skip questions what climate change is and if it is happening or not.

We also asked on which themes the respondents already had knowledge. The majority had knowledge on mitigation, especially on sustainable energy (15 of 29). A lot of respondents also had knowledge on adaptation, especially the respondents from the water sector (12 of 29). Nine respondents report that they have knowledge on the climate system itself. In some cases this is at the scientific level, but in others they mean knowledge at the lay level, for example they had read the opinion of climate sceptics in the newspapers.

The next question was what information was still lacking and what questions the respondents had. 22 of the 29 respondents formulated 49 questions. The largest number of questions was related to adaptation (16), followed by questions on the climate as such (14), mitigation (11) and other questions (11). Some respondents explicitly said their information on mitigation was already sufficient. A few examples of their questions are shown in Table 5.

Table 5: Some questions on climate change (C: climate as such, M: mitigation, A: adaptation, O: other)

Question	C	M	A	O
How can adaptation to climate change become part of spatial policy?			x	
How should institutional arrangements change in response to climate change?				x
What is the relation between land use and forestry on one hand, and adaptation to climate change on the other?		x	x	
What are the effects on agriculture, fisheries, nature and the countryside?			x	
What are the latest facts from climate research?	x			
What are the prognoses for rainfall?	x			
What are the risks for industry and how can we prevent problems? For example flooding, cooling systems, traffic, infrastructure such as pipelines?			x	
How can farmers adapt to heavy rainfall?			x	
How will emissions trade develop in the future?				x
Private companies want answers to the whole range of questions: is the climate really changing? Is it caused by human actions? Are measures affordable? What can I do?	x	x	x	
What climate policy is possible for production of electricity?		x		

Next to classifying respondents questions in themes, we also asked in which of these themes they were interested. Most of the respondents are interested in two or more themes. NGO’s and educational organizations want information on all four themes, because they want to translate ‘the whole story’ to their target groups (citizens and schools, respectively). Again the score is the highest for adaptation (20 of 29). 18 respondents are interested in mitigation, and 10 in climate as such.

We conclude that the respondents knowledge is highest on mitigation. Organizations from the water sector have a lot of information on adaptation, but in general, knowledge on adaptation is lacking. The questions people have and their interest in themes mirrors this picture: they mostly need information on adaptation. Most respondents are interested in two or more themes, and there still are many questions on the climate as such.

7. Methods and media for communication

A final set of questions was related to our choice of media. Which media do our target groups prefer, which media are used in the existing communication, and with what kind of activities could the CCSP programme add to this, especially from the viewpoint of two-sided communication?

Firstly we asked which media respondents used to inform themselves. We used five general categories: radio/TV, internet, paper media, personal contact and workshops/conferences. Paper media are used the most (23 of 29 respondents). Personal contact and the internet were used by 19 respondents. Workshops and conferences are used by 9 respondents and radio/TV by 7 respondents.

The paper media could be subdivided into scientific articles, newspapers, professional journals, reports and newsletters. Scientific articles are hardly used by the respondents. Professional journals are the most popular information sources, especially journals in the areas of sustainable energy and water management.

The internet is used selectively: specialized sites, trustworthy sources. Several respondents appreciate electronic newsletters.

Examples of personal contact are bilateral meetings with scientists, platforms, working groups and meetings. Personal contact is an important medium, but it is also labour-intensive. It can only be realized by the CCSP programme through involving intermediate organizations like consultancy firms and umbrella organizations.

It turns out that most of the respondents use many different media, ranging from two to all five categories. Respondents have different intentions when they collect information and for these different information processes they use different media. At the individual level there were four types of processes:

- Collection of in-depth information with a specific purpose in mind: for this process respondents use mostly paper media such as scientific reports and policy documents, if possible downloaded from the internet („I use information from the literature, professional magazines, ministries, knowledge institutes, the internet”);
- Strategic selection and exchange of information, including negotiations about what is true and valuable and what not: in this process personal contact, networking and workshops/conferences are important (“correspondence on negotiations”);
- Broad scanning of news to stay informed on a professional domain and on societal developments in general: for this proces respondents use newspapers, TV, professional magazines, the internet and (electronic) newsletters (“I receive all kinds of leaflets and magazines”).

- Shutting out certain types of information because the sources are untrustworthy or the complexity of the information is too high; examples are climate sceptics, politicians, the internet and scientific articles (“KNMI says it will come up with new scenario’s, but we won’t use them”).

This explains why respondents use many different media. They make deliberate choices on the profoundness of information, depending on the process. At a higher level, the level of organizations, we found a range of steps in the information chain (“We take the national policy as a starting point and translate it to the citizens. The national policy is substantiated by RIKZ, which, in turn, uses knowledge from KNMI”). These steps also require different information sources:

- Scientific institutes develop new scientific knowledge; they use scientific articles and reports;
- Governmental institutes and consultancy firms select and aggregate scientific outcomes into policy relevant information; they use scientific articles, scientific reports and policy documents;
- National governments translate policy-relevant information into new or adapted policy; they use informal contact with scientists, aggregated reports and policy documents;
- Provincial governments, water boards and municipalities translate national policy into practice, such as spatial planning decisions; they use mainly policy documents.
- Private companies use personal contacts and networking to influence policy makers, and workshops/conferences and newsletters to scan for relevant developments.

Of course, this is a simplification. The information people use also depends on their personal interests and previous education. Still, it is important to keep in mind that target groups of the CCSP programme are active in different steps in the information chain, and therefore, they will have different preferences concerning the profoundness of information.

We conclude that paper media, the internet and personal contact are the best ways to reach most of the target groups. The existence of the different information processes means that the CCSP programme should provide a range of different media to cater to the needs of the target groups. Written media such as scientific reports and articles should be made available through the internet, for example as downloadable pdf’s. A CCSP electronic newsletter will be appreciated by many target groups; its contents should be made accessible for people with different knowledge levels. It is important to invest in personal contact, engaging all people already involved in the CCSP programme. We should refrain from sending out too much or too complicated information, because then people will start to shut out CCSP-labeled information.

8. Final conclusions and follow-up plans

Scientific institutions, national governments and NGO’s already are strongly involved in the debate on climate change. They are interested in new results on adaptation to climate change, and to a lesser extent in mitigation. They want to be informed by a series of media, including articles and reports with in-depth information. They are also interested in uncertainties around climate change and they are willing to discuss

those with scientists. NGO's sometimes have a problem with the accessibility of scientific information. Scientists must continuously be stimulated to present their results in more popular terms, for example in professional journals.

A second group of actors will be harder to reach: provincial governments, water boards and municipalities. A first difficulty is that these organizations are not so interested in scientific facts, let alone the process of producing new scientific knowledge. Lower governments leave the translation of science into policy to national governments and they don't want to hear about uncertainties. To reach these actors, cooperation with national governments and umbrella organizations may be helpful.

Another problem with lower governments is that 'climate policy' traditionally is related to mitigation. This means that information labeled with 'climate change' will often be directed towards departments dealing with CO2 reduction and sustainable energy, even when the information is about adaptation and spatial planning. It may take a while before bureaucracies have adapted to the new issues so that the information falls into place.

A third problem is the large difference in information levels. As the circle is widening, more and more people with little more than lay knowledge will be involved in the climate debate. The actors who have been discussing climate change for over a decade must be willing to answer the most basic questions again when this is necessary.

The present activities of the CCSP programme are already resulting in closer contacts with the provincial governments. Water boards have been drawn into the programme, but they also have their own circles in which they discuss climate change. With municipalities, the gap is still huge. The CCSP programme will have to start extra projects to get them involved. To reach municipalities, intermediary organizations such as regional platforms and consultancy firms may be helpful.

A small number of national politicians is already interested in climate change. They sometimes succeed in getting it on the national agenda. Of course, there always is a lot of competition on the agenda of Parliament, most of them short term issues. We could try to gain support at the scientific offices of political parties. However, most of the people working there are economists, legal and social scientists. A natural scientific issues such as climate change may be difficult for them to handle. A positive aspect is that these offices not only support national politicians but also provincial and municipal politicians.

Contacts with private companies will be difficult for the CCSP programme because they are such a diverse group. They hardly see the necessity of adaptation yet, they have a lot to do with mitigation measures and they sympathize with climate sceptics. The first meetings with industry have been arranged, though, and insurance companies, agriculture and the energy sector have shown interest. Personal contact will be one of the most important ways to involve the private sector, next to publishing in their trade journals.

The general public will be even harder to address by the CCSP programme, especially because of the size of this group. The public knows about the existence of climate

change but it does not act upon this knowledge. KNMI and NGO's are already communicating towards the public. Next to this, public media have picked up climate change in news issues and documentaries lately. The CCSP programme could sponsor some of these activities, but it could also restrict itself to providing scientific content to newsmakers.

Finally, the educational institutions, pupils and students: we did not succeed in getting a clear picture of this target group. We mainly know of institutions who are eager to produce educational materials, but we do not know if anyone is waiting for it and what the materials should be like. If we start such an activity, we should make sure that actors are involved who make the decisions what is taught: the Ministry of Education, large publishers of schoolbooks and teachers themselves.

References

IPCC. 2001. Climate Change 2001. Synthesis report. Summary for Policymakers. Part of the IPCC Third Assessment Report (2001). IPCC, Geneva, Switzerland

Jansen, B, Klostermann J, van Steenis O, Roeleveld D. 2005. Climate changes Spatial Planning. Communication strategy. Free University, Amsterdam

A few websites of climate change research and/or communication sites:

California: <http://www.climatechange.ca.gov/research/index.html>

Canada: http://adaptation.nrcan.gc.ca/home_e.asp

EU communication: <http://www.climatechange.eu.com/>

EU research: http://ec.europa.eu/environment/climat/home_en.htm

Japan: <http://www.jamstec.go.jp/frcgc/eng/>

UK: <http://www.ukcip.org.uk/>