

Parallel Session 25: Proposals and initiatives for “public dialogue”

**PUBLIC PARTICIPATION IN CLIMATE CHANGE KNOWLEDGE
PRODUCTION. AN ASSESSMENT OF COMMUNICATION MODELS**

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Abstract

Recently, there have been experiences of public participation in the debate on climate change, despite the “invisibility” and scientific complexity of this environmental problem.

The study of public participation in climate change knowledge production from primary scientific sources provides data to draw and assess a communication model based on public dialogue.

The understanding of climate change knowledge production on which the present paper builds is based on the data collected through interviews to climate change scientists and participant observation during their fieldwork at the Ny-Ålesund International Arctic Environmental Research Station.

The science-society participation mechanisms identified and studied follow a regular pattern concerning its effectiveness in terms of communication. The patterns identified have been used to test a primary model of systemic environmental communication that works as a tool to understand the role of communication, information, and public participation in governance for sustainable development.

Key Words: communication, public participation, climate change

Text

Context

Public environmental behaviour is influenced by many factors (both internal and external to the individual) and especially by cultural infrastructures. The media, the educators, policy-makers or scientists and experts are enrolled in setting the agenda of the environmental debate and they all play a decisive role in determining social behaviour towards sustainability.

Information received by the audience raises awareness but it does not necessarily involve the public in the identification and implementation of a joint solution. Public involvement in environmental problem solving goes beyond perception and awareness and it is a matter of many actors. On their side the media contribute to making environmental problems visible to the public. They contribute to setting the environmental agenda but they cannot be made accountable for social behaviour. Sustainable behaviour is the result of the interaction between the media, the audience, sources of information and the different actors of the problem.

Structured and systematic interaction of the audience with the information they receive and with the sources can influence the contents of this information. Such interaction generates a different knowledge that holds not only the vision of policy makers and scientists (primary producers of knowledge) but also that of the public in their capacity as citizens and consumers. The phenomenon of interaction of the public with information contents, and thus their participation in knowledge construction, has been studied in the field of public understanding of science and technology and especially in the environmental field. Climate change poses an additional challenge given its invisibility and scientific complexity.

Public participation in climate change knowledge production

The understanding of climate change knowledge production on which the present paper builds is based on the data collected through interviews to climate change scientists and participant observation during their fieldwork at the Ny-Ålesund International Arctic Environmental Research Station (July-August 2001, 16 climate change research projects studied, 27 interviews) Content analysis of communication materials published by these researchers has also been used as well as further research and documentation on their subjects of study and the link to communication and public participation.

Examples of direct contributions of the public to the process of knowledge production could be identified where public involvement resulted in better design and better understanding.

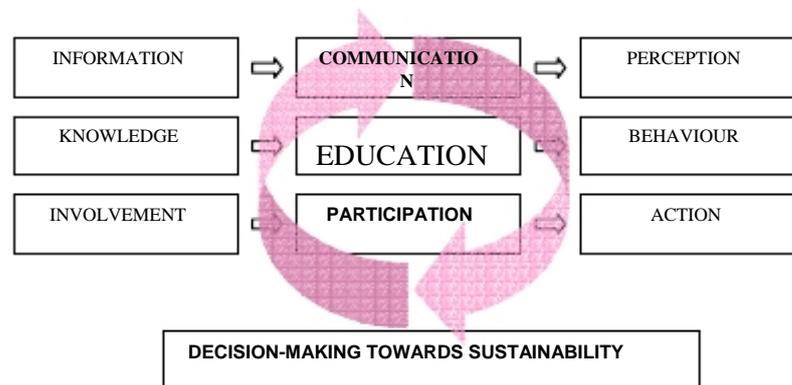
The science-society mechanisms identified and studied follow a regular pattern concerning its effectiveness in terms of communication:

- Social networks share a common understanding of climate change as an environmental problem. This understanding has been facilitated by a common identity and shared knowledge.
- The linkage to science has been built upon the idea of joint construction of climate change knowledge.
- In more mature mechanisms there is a formalisation of the means of co-operation.

- When these mechanisms are functioning they are proved to become powerful communication tools. They can also become governance systems used for policy making.
- These mechanisms define a new kind of communication professional that plays a triple role in communication, education and participation.

Changing communication models: the role of new communication actors

Environmental communication cannot be a lineal process of information transmission from the sources to the audience. Lineal communication limits the real capacity of the public to change their behaviour towards sustainable action. Effective environmental communication for sustainable decision making is an information-action cycle. Information is used not just as a tool to improve quality of what is known, but to serve to the specific objectives of an actor that can take multiple forms (a journalist, an NGO, a company, a scientist, etc). The actor modifies the contents of information to make it useful for his/her final purposes. Information is not merely representing external data. Instead, it is enriching the knowledge of the actor, thus guiding and facilitating action.



This systemic model of environmental communication defines a group of *New Communication Actors* (NCA). NCAs emerge when communication involves action-information. When dealing with another type of information the main actors are, in general, mass media. In this case, information is modified and enriched by the actor through interaction with external data. The final user is not involved in the definition of the contents, or at least not to the extent of being able to decide what contents have to be released. On the contrary, action-information is based on interactivity between supply and demand of information.

NCAs co-operate actively in the process of environmental communication. They can be producers, transmitters and receptors. There is a tacit co-responsibility between NCAs to build together the means by which decision-making is made compatible with sustainable development: the media can be both delivering and retrieving information; society can be both learning from and educating the

experts; scientists are providing knowledge that is built upon the experience of the public. There is an intricate interdependency between NCAs that results in a joint construction of knowledge.

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