

Baltic Earth, Outreach and Communication

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Outreach is the collection of efforts of a scientific project to embed its work in the social landscape of social, political and economic interests. This landscape is mostly „external“ to the project. By doing so, these interests feed back on the project itself and may help to sharpen the focus and increase the societal/scientific significance of the project. It may also contribute to the recognition of the project as “valuable” (concerning scientific integrity, social relevance, honest broker ...) or having sufficient “impact” (EU terminology).

Sometimes, outreach is claimed to be pursued by promising press articles on something, or public presentations with clubs. Such efforts are mostly mere lip-service and have hardly any effect, as they are not taking into account specifics of the addressees and own limitations.

Outreach serves a number of purposes, and takes different forms, and addresses different groups (usually called “stakeholders”). These groups differ in terms of interests, of held knowledge systems and experience.

- a) When other *scientific projects* or the general scientific community are addressed: to recommend the usage of ones’ recently constructed knowledge claims in their knowledge systems, or the integration into the program of other projects. These “other scientific projects” may be large international programs such as BONUS, WCRP, IPCC etc., but also scientific institutions.
- b) When *funding agencies* are addressed, such as BONUS, the motivation is to establish the recognition of the issues, methods and past results of the project as scientifically significant and contributing to find solutions for the “grand challenges” of the time.
- c) When *managerial and political decision* bodies are addressed, such as HELCOM, then the motivation is to convince such bodies that the scientific project may supply significant insights into the issues to be decided – about the dynamics of the issues, the sensitivity of the issue to the consequences of decisions etc. Also when the knowledge is not yet “actionable” (because of significant lack or insufficient linkages to the issues of relevance for the deciders), the project will convey the potential of the project in overcoming such temporary limitations.
- d) When the *general public* is addressed, the purpose is introducing scientific arguments and explanations into the public understanding of the dynamics and the sensitivity of the environmental system. Such understanding contributes to the overall quality of life, when people are enabled to make sense of otherwise confusing events and

developments. Such knowledge contributes also in the general political decision making, but it is not concluding political debate but conditioning the options of such debate.

In all cases, it is needed to have an understanding of the knowledge system adopted by the addressee, its interests and motives. These “alternative” knowledge systems are in most cases not based on scientific constructions but built to satisfy certain cultural preferences, interests and social inertia. The recognition of the presence of such knowledge competitors is mandatory for a scientific project, which is engaging in outreach. Different knowledge claims are held hold by the stakeholders, the general public and other scientists. Also, the active scientists are not free of culturally constructed assumptions and explanations.

Standard outreach efforts have often suffered from adapting the “**gap-model**”, according to which the obvious inconsistency of rhetoric about needed action to fight man-made climate change, and the real even accelerated increase in GHG emissions, is due to a lack of knowledge and understanding on the side of decision makers and the public at large. Therefore advocates, including scientific stealth advocates, have favored strategies which aim at closing this gap in knowledge and understanding. Thus, a terminology of “teaching”, “educating”, “informing” has been often used in the past, presuming that the objects of such one-way flow of knowledge would be like little children with a mostly empty intellect, like a black board, on which knowledgeable wise men and women just need to write the “truth”, and then a rational behavior and meaningful actions would follow. This is a typical naïve approach of natural scientists (who believe to be in possession of superior knowledge, unknown to lay people).

Indeed, the black board is already filled with knowledge, and when writing on this black board, the old stuff is not overwritten, but the new and old blend, with the old one in most cases remaining dominant. In that sense, a direct line from “nature strikes back” leads to the medieval concepts of God punishing for sinful parishes and individuals. Similarly, ideas originating from climatic determinism are still around and effective in guiding people.

Another complication is that for taking decisions, several blackboards are consulted, one with climate, the other with other environmental issues, others with moral, economic, social and further conditions of relevance for decision making and prioritizing goals, values, preferences and actions. Of course, those, who know a lot about climate, climate change and climate impact, do not necessarily know a lot about the other factors; in most cases, they will know as much as anybody else; the experts will be others.

Having this in mind, it is clear that a fundamental problem is the competition of knowledge claims, that “truth” is a powerful but invalid concept; that a successful communication recognizes that the “others” (those to whom we want to reach out) cannot be simply *taught*, but that a dialogue must be built with specific decision makers and stakeholders; that natural scientists must understand which role to adopt for remaining significant.

I suggest that we develop several lines of analysis

- *Which stakeholders* (e.g., politicians, local decider, agriculture, environmental NGOs) are significant and may be able to efficiently incorporate scientifically valid knowledge in their understanding. They differ in terms of responsibilities, nationality, economic and cultural interests.
- *Which knowledge systems* exist for conditions and developments of the Baltic Sea region; are these nationally specific and different? Which different social groups hold which knowledge systems? What are the issues of concern for different social groups in the Baltic Sea region? [The Soviet past of part of the region may play a special role.]
- To what extent is the BACC report about climate, climate change and climate impact consistent with the questions raised by decision makers and stakeholders in different countries. Are the relevant issues addressed by BACC, and are the answers understandable by those “out”? A specific measure could be to construct short versions in national languages which summarize the key points of BACC (was done in German for BACC-1).

Without having social scientists joining Baltic Earth in this challenge, the chances for our scientific understanding to enter the processes of public sense-making and of policy decision making are rather limited.