

Forum

Blinded by the view? An ecological landscape is more than just pretty scenery

Report from the Research Council of Norway's conference on "The changing landscape", Oslo, 27-28 March 2001.

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Landscapes are complex, and behind each layer of complexity, lies another, and another, and another. Like looking at fractals, we can zoom in from the overview of "how it looks" to the habitat types, to the species and their interactions, down to the movement of nutrients through the system. As well as being diverse at any point in time, landscapes are always changing. Some of these changes are driven by ecological processes, but an increasing degree of change is being imposed directly by human activities.

Understanding how complex landscapes work is a mammoth task that has occupied researchers for almost a century, and will no doubt occupy them for centuries to come. However, in the here and now, decisions need to be made about land-use and the management of natural resources. If we are to have any chance of creating sustainable land-use, preserving biodiversity, or restoring lost diversity we need to have a solid platform of science. The present research program "The changing landscape" being run by the Research Council of Norway is an attempt to provide, at least in part, the data needed to guide Norwegian nature management into the 21st century. As is fitting for such a program, the aim is to focus top-level science on real world problems, to try and find solutions.

During two days of presentations by researchers and guest speakers from the administrative and political field, attendees at this meeting could not help but be impressed by the diversity of research topics covered by the 56 projects that are ongoing within this program. Topics as diverse as Norwegian lynx ecology were being discussed alongside studies of fish population dynamics in the United Kingdom, sheep grazing in northern Norway and tourism in Africa. Five main research areas are covered in the program, (1) Cultural heritage, (2) Grazing and the man-made landscape, (3) Socio-cultural aspects of the landscape, (4) Game, fish and large carnivores, (5) Recreation. This diversity is intended to reflect the fact that nature management is as much a social and political issue as ecological. There is no doubt that the program has achieved its goals of being multi-disciplinary. The one really good thing about this program is that it clearly includes human beings with all their social and cultural complexity

into studies of ecological landscapes. What is not yet apparent is if the program will achieve its goals of producing true interdisciplinary research. The differences in language, approach and methodology make it very hard for researchers from one discipline to understand those from another discipline. The rewards of achieving integration between different disciplines are great, but we clearly have a long way to go.

If a group of experts find it hard to communicate with each other, it is not surprising that problems arise when we try and communicate with bureaucrats, politicians and the general public. Yet without this communication, the important research that is being done will be in vain. The conference organisers rightly placed emphasis on the need for all projects to communicate their findings and to take part in the debates ongoing in society. This represents a great challenge because of the difficulty in distilling a simple "take home message" from a complex reality.

This direction also raises a few philosophical questions about the role of scientists and research. Should we try and remain value neutral, or is it enough to be objective? Can we advocate particular values? Can we care about the species or ecosystems that we work with? Can we afford not to care? Clearly the different scientific disciplines have traditionally adopted different roles. As we move towards interdisciplinary research we need to reconcile our differences. Also there are clear generational and cultural differences in the extent that scientists are allowed to work "for conservation" rather than only "for science". A workshop on the role of science is needed.

Which brings us to our title. Are politicians and the public interested in hearing the messages? There is no doubt that environmental issues are not very high on anybody's agenda today. Certainly the media did not seem interested in this conference, and environment was a non-issue in the recent general election. One of the major problems that we see in Norway, is that Norway is still a beautiful country, with its high snow-covered mountains, deep blue fjords and seemingly endless green forests. These beautiful views and vistas have fooled the public into thinking that everything is OK with the ecology of these landscapes and with the humans that use them. The problems lie in the subtle details of the complexity – details that are hard to communicate in sound-bites. Before we can get anybody interested in hearing our solutions to managing landscapes in a sustainable manner, we need to convince people that we have problems that need solving.

The overall impression from the meeting is that a lot of exciting, solid and relevant research is going on. However, there is clearly a real need for much greater emphasis on communication, between different research disciplines, between the researchers and the politicians, and between researchers and the general public.