Public Awareness and Earth Sciences

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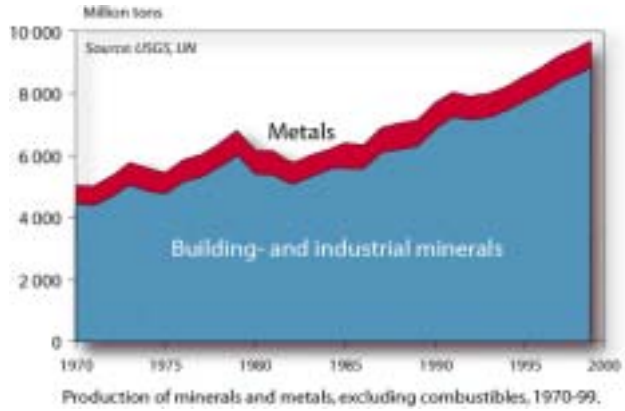
We are living in a society were our dependence on science and technology increase and the public interest decrease. The consumption of mineral and energy products has increased and will increase in the coming years, and science and technology have during the last 30 years been loosing the battle of the public attention. We will in this workshop discuss how we can improve our dialog with the public and increase the public awareness.



Production of minerals and metals, excluding combustibles, 1970-99.

Historically the demand for mineral resources has been the main reason for the communication between earth scientist and the society and maps became early an efficient method in this communication. The first geological map, we know, came from the Nile Valley, and for more than 3000 years ago King Ramses the second made a geological map showing different rock types and deposits of gold and building and ornamental stones.

Historically our dialog has also been based on a very positive attitude from the public. The Norwegian author Henrik Ibsen express this in his play John Gabriel Borchmann. Borchmann is the son of a miner and describe the sound from the hammering of the ore. He say that the ore is singing out of joy because it shall be transported up in the daylight and serve mankind. More recently, in the law of the Sea, it is stated that mineral resources in the deep sea is “the common heritage of mankind”.

In the early seventies when I was working as a field geologist the first question I got from farmers and journalists was always: are you looking for gold? Geology was associated with gold, oil and mineral industry. The sixties and seventies were therefore a golden age for earth sciences for universities and surveys. Mining and oil companies expanded and they expressed very clearly their need for geologists, geophysicists and geochemists and knowledge in earth science. In many countries the industry became the dominant customer.

We have been through a period with an increased public interest for the environment, and the public view changed from a positive to a negative attitude to industry. The public was clearly influenced by an ecological view, and

man became a part of nature. The biologists dominated the communication with the public with films telling stories about wolfs, bears and flowers. The close relationship between industry and earth sciences became a problem for our image in many countries.

The public attitude has clearly changed. A new oil discovery worth some billion dollars is no longer news in TV and will be only mentioned with a little note on page 17 in a newspaper.

Today the public interest for earth science is much more related to people as individuals. “How does geological processes affect me?” We see an increased interest in the media for tsunamis, rockslides, flooding – how do they occur and how can we prevent or reduce the effect of geohazards. We also see increased interest in phenomena that can influence our health, and geomedicine is probably fastest discipline of earth science. We see also an increased interest in hiking and adventures, where the landscape is an important factor. The geologic history of the landscape, told in an exciting way, can add a new dimension to the experience.

We know that few people outside earth science understand geological maps or the geological language. Modern technology gives earth science new possibilities to communicate. We can now move into a virtual 3D oil reservoir and this is now a common platform for communications between geologist, engineers and economists. We can use animations and virtual reality to tell stories which earlier was restricted to the circle of earth scientists.

I have described some trends in public interests, which partly explains our problems in communicating with the public. The main problem we face now, however, is that the public do not want be informed any more. They want to be entertained and earth sciences must accept that we also are part of the entertainment or infotainment industry, and that we have to communicate with the public differently. Communication through storytelling has become almost a fashion. Storytelling has, however, been part of our culture from the beginning, and I think we have many stories to tell in earth sciences - interesting and exciting stories.

In the University of southern California they have established a research project with participants from the Physics department and the film industry. How can we tell new stories based on scientific facts and stimulate our curiosity? How can the new digital or virtual reality help us telling stories from the earth today and from its geological history?

We have all read the books of Jules Verne and seen the movies based on the books. An author or a filmmaker is not living in isolation. Most authors are influenced by what they read, hear or see and earth scientist must give them the input they need. We see too often that a potentially good story is not developed. One example is the recent Hollywood movie: “The Core” showing the situation where the core stops to rotate and the earth loose its global magnetic field. The film was rather unsuccessful both as entertainment and as a scientific story. It could, however, been much better with a input from a scientist.

Earth science has many interesting and dramatic stories, waiting to be told, and it is of great importance for the future of earth science that they will be told. We cannot do this alone, and we have to live and work together with authors, artists, producers and the public.
It will cost a lot of time and money. We have, however, no choice.