ORKUSTOFNUN

Ávarp við setningu ráðstefnu um vatnafræði á Norðurlöndum og gróðurhúsaáhrifin, í Borgartúni 6 hinn 3. apríl 1991

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Greinargerð JB-91-01

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Ladies and Gentlemen !

I should like to join the previous speaker, Mr. Bergthorsson, in welcoming you all to this synposium. For some of you this may be the first visit to Iceland. I do hope you will all feel at home here and enjoy your stay.

The National Energy Authority, a Government advisory and research organisation in the energy field, is co-sponsoring this Symposium together with the Icelandic Meteorological Office. Our interest in the greenhouse problem relates to the energy implications of the greenhouse effect.

In this country fossil fuels - the main suspected culprit behind the greenhouse effect - provided for 32 % of the primary energy requirements in 1990, which is a lower percentage than in most of the industrialised world. The remainder, 68 % , comes from hydro-electric and geothermal sources. Of the fossil fuels some 85 % are used in fishing and transportation; fields where the use of either hydro or geothermal is technically impossible or impractical. We now have driven the substitution of fossil fuels by hydro and geothermal practically to its technical limits. E.g. has the role of fuels in the space heating sector, the largest single energy consumption sector in Iceland, been reduced from about 45 % in 1973 to around 2 % now. Nevertheless, Icelandic emissions of carbon dioxide amount to about 10 tons per capita per year; a somewhat higher figure than for the remainder of Europe, but a little more than half the similar figure for the United States. True, almost everything in Iceland tends to look big on a per capita basis due to the low population. Normally, we are proud of such comparisons, but in this case our pride is somewhat subdued. The reason for this high emmision rate lies in a highly mechanised fishing fleet and relatively great requirements for transporation due to a low population density - few people in a relatively large country - and the remote location of the country.

If the greenhouse effect proves to be as serious as many people fear our use of fossil fuels will be affected just like anybody's else. We shall have to reduce our share of the CO_2-emissions.

But the greenhouse effect may affect our energy situation in another way too. Water is the primary energy carrier in both of our indigeneous energy sources, hydro and geothermal. The greenhouse effect will influence the supply of water. That is the very theme of this synposium.

As you are aware of there is a lot of controversy surrounding the greenhouse effect. Our knowledge of the processes involved in the athmosphere and hydrosphere is still insufficient to enable us to accurately predict the consequences of a given rise in the concentration of carbon dioxide and other greenhouse gases in the athmosphere. This is a serious shortcoming. Generally, the very key to solving a problem is to know its nature. This applies, I think, to the greenhouse problem also. Therefore, in my view, the most urgent task ahead is to launch a major international effort to vastly increase our understanding of our athmosphere and hydrosphere and their processes. On the other hand some people feel

that the consequences of the greenhouse effect may be so grave that no time must be lost in attacking the problem and, therefore, that actions must be taken without delay. There is a dilemma here. On the one hand the consequences of taking no action immediately may be grave, but taking very costly actions on basis of insufficient knowledge may also indeed lead to grave and costly consequences: We may simply take actions that improved knowledge may show to be either wrong or useless.

In this situation I believe we should proceed carefully, and above all, without panic. Decisions taken in panic hardly ever turn out to be good decisions. However, I believe we should take two steps immediately : (1) to embark upon a major effort to improve our knowledge, mentioned above, and (2) eliminate energy waste. Waste, by definition, serves no useful economic purpose and therefore does not contribute to economic well-being. It is created by imperfections in the functioning of the energy market, human inertia and negligence. There can hardly be any disagreement as to the desirability of its elimination.

Meanwhile, the improvements in our knowledge will, I think, be the principal tool to conquer the greenhouse problem, like all other problems Man has been able to conquer hitherto. This can only be achieved through international cooperation. An international symposium, like this one, therefore, is a step, albeit a small one, in the right direction.

I wish you every success in your deliberations.

Thank you for your attention, Ladies and gentlemen !