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Have you Heard Any Good Risk News Lately?

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a) Climate Change

The link between global climate change and man-made CO₂-emissions has become increasingly clear for many over the last years. But among the notable and outspoken exceptions is the Republican candidate to the US presidency, George W. Bush. He is an exception by words, but what about the deeds of other politicians?

When the OPEC decided to double the price of crude oil earlier on this year, environmentalists heralded this as a change for good: the theory goes that higher energy prices will give incentives for energy savings and make alternative energy (e.g. solar and wind power) relatively cheaper. Anybody expecting to see that 'green' European governments would seize the opportunity to foster applications of alternative energy, in order to speed up this change, has been profoundly disappointed. With few exceptions, such as Switzerland and the United Kingdom, governments throughout Europe have decided to subsidize CO₂-emissions, either by reducing existing levies and taxes on fuels, or by new subsidies to promote fossil fuel consumption!

At the same time, some data from the draft of the third IPCC report (Intergovernmental Panel on Climate Change) has filtered through into the press. According to this information, the work group 1 of IPCC has come to the conclusion that global warming could happen faster than forecast in 1995 – by up to 6 degrees centigrade, as compared to the 3.5 degrees predicted in its 1995 report. This rise is not due to modelling changes, but to increased environmental protection, namely the reduction of sulphur compounds which have a cooling effect on the atmosphere.

In mid-November 2000, the next meeting of the parties of the climate convention will take place in the Hague, in order to discuss details of the Kyoto protocol. The Kyoto protocol demands a reduction of the air emissions that have a negative influence on the climate of 5% or more, by 2009 - 2012, for industrial countries – which emit 80% of the 'green house gases'. The reality is that CO₂-emissions – not only in the USA – have increased by 1.2% per annum since the Kyoto protocol was signed – energy consumption has even increased by 2.2%.

The attitude of the USA is clear, independently of the outcome of the elections. Already in 1997, the US Congress has informed the President in a resolution that a ratification of the Kyoto protocol is only acceptable under two conditions: firstly, leading LDCs (less developed countries) will also have to agree to reducing CO₂-emissions; secondly, the US administration will have to show that the protocol will not cause higher costs to the US economy. But this only applies to oil politics. Electricity prices in the USA have soared this summer for market reasons, mainly due to a lack of capacity and a high demand due to the extremely hot weather. It seems that market deregulation in North America, together with the foreseeable change in the structure of the industry towards decentralised production (see for example Amory Lovins' publications for details) has convinced utility companies not to invest in new traditional electricity production (coal, fuel oil), after having already given up nuclear plants years ago due to the problem of long depreciation periods.

In the meantime, global nature seems to follow most of the disaster forecasts that have been made over the last ten years. The ice cover of the North American Great Lakes lasts for increasingly shorter periods, and the icecap on the North Pole has disappeared in summer since the early 1990s. The annual number of tornadoes on the Northern hemisphere is increasing, and ocean waves attack the shores with increasing fierceness – often in areas where men were proud of having conquered land from the sea in earlier times. Flash floods as a consequence of extreme rainfall are becoming a daily piece of the World news: Bangladesh, India, Great-Britain. In the Swiss-Italian Alps, mud-flows in areas considered safe until now have recently destroyed buildings erected in the 16th century, as autumn precipitation increasingly comes in the form of rain rather than snow.

For insurers and politicians, it becomes important to differentiate areas where the economy might actually profit from global climate change (such as the North of Europe), from those that will suffer (the South of Europe). And insurers will want to hedge increasingly against changes in the climate – only how will they do it?

In many cases, the extent of the recent disasters has been multiplied by government actions – or the lack of it - in the domains of physical land and town planning, the deforestation of hillsides in order to gain arable land, and a lack of political courage to enforce existing legislation on e.g. construction codes and to establish binding zoning laws. In the Aosta valley, the Italian region on the South slopes of Mont-Blanc which was devastated in October 2000, the regional government discontinued the office of the environment in 1998 and transferred its objective to the office of public works - the very office busily 'concreting' the countryside and 'gaining' land on the rivers and brooks that took their revenge this Autumn.

The year 2002 will see huge festivities to celebrate the ten-year anniversary of the UN Earth Summit in Rio de Janeiro and its Agenda 21. What progress will these governments be able to show?

By introducing the Precautionary Principle as a guide for all future policy decisions, the European Commission has thrown a new topic into the risk discussion: 'precautionary research', a new cooperation between scientists and politicians:

b) Science and Governance

'Science and Governance in a knowledge society: the challenge for Europe' was the title of a conference organized jointly by the Directorate-General Research and the Directorate-General of the Joint Research Centres of the European Commission in Brussels, October 16-17, 2000. The conference was about risk management at the highest level. It identified three domains of interest: the governance of science; the use of science for governance; and research on the impact of science on governance. The conference was attended by leading scientists and top-level politicians from North America, China and Japan, in addition to Europe. In addition to the plenary discussions, four parallel sessions enabled a detailed analysis of the topics: Science, citizens and the decision making process; Anticipating risks: foresight and 'precautionary research'; Facing the urgency of crises: early warnings and quick responses; Towards a European scientific and technical reference system in a global context.

The push for this new research domain comes from the adoption earlier on this year, by the European Commission, of the precautionary principle as a directive for all future policies. This approach covers health and weather risks as well as new bio hazards and technological issues.

The challenge for science is simple: scientists will no longer be able to say 'we do not know', but will be asked to distinguish clearly between what they know and what they do not know. Precaution does not mean abstention, but a better anticipation and discussion of risks. Galileo, in Brecht's play, puts it this way : 'the role of science is to set a limit to infinite error, not to open doors to unlimited possibilities'. In the words of one of the eminent speakers in Brussels on October 17: 'Understanding the molecular machinery will be a key to future scientific judgements on many 'new' risks'. More fundamental research will be needed to identify the objectives and possibilities of 'precautionary research'. And risk assessment and risk management will increasingly become a tool used by scientists and policy makers alike – once they have understood how to use it intelligently, within its limits.

The Guest Editorial of this issue fits in well with the idea of precautionary research, as it gives an unorthodox – North American - view of links, risks and opportunities related to the environment, health and education. Again, frontiers of scientific domains may have to be redefined in the future.

c) And now for the Good News!

A clear case for Governance without any lack of scientific proof would seem road accidents. The first country to have the courage not only to recognise that, but to take actions, is Sweden. In 1997, the Swedish Parliament has put into force a new directive on safety policy for road traffic called 'Vision Zero'. This vision is based on the physical and psychic 'limits of performance' as well as the bodily vulnerability of human beings. On this basis, the directive formulates fault-tolerant roads, vehicles and legislation. The key to this philosophy is fault tolerance: small mistakes or lacks of attention should no longer cause any serious harm to anybody. The Vision Zero directive is a bold step towards a new, more sustainable mobility. Information in English language can be found at http://www.vv.se/traf_sak/nollvis/tsnollvis3.htm

Vision Zero could greatly reduce the toll of 40'000 people that die every year within the first days after a road accident in the EU (as later deaths are not recorded statistically as accident victims, this figure is too low – in reality of course, it is unacceptably high). Yet Vision Zero may not solve the problem of 'mobility casualties' totally: a recent study examined the deaths from air pollution in France, Austria and Switzerland. It has found that the number of people dying from inhaling 'microscopic dust' mostly caused by road traffic (called PM10 by experts) is a multiple of the direct accident casualties. For Switzerland, the figures for 1999 are 583 people killed in road accidents (and ten times this number for people who were seriously injured in road accidents). But during the same period of time, the number of people killed by PM10 in Switzerland was 3'300, which is equivalent to 6% of all deaths nationwide. As PM10 dust is emitted from combustion engines, such as vehicles and heating installations, as well as from the (asbestos-free) brakes and clutches of vehicles, road traffic is the main source of it.

Which government is going to tackle the issue of people dying from emissions from road traffic? Many politicians still seem to think that cheap oil is a basic human right, and big fuel consumers, such as truck and taxi drivers, certainly share this view. The present industrial actions in most EU member states, asking for fuel subsidies, is a clear sign for our time: whereas people used to go on strike for cheaper food, or better working conditions, they now strike for cheap mobility. Is this a case for governance versus sciences, or for common sense?

As this is the last newsletter of the Geneva Association before the start of the third Millennium – this time for real – I wish you, also in the name of all the staff of the Geneva Association, a Merry Christmas and a happy, prosperous and successful New Millennium !

You still have doubts about the correct date when the new Millennium starts? Think about it, there is a scientific proof: Millenniums being very orderly institutions, they always begin with a Monday, January 1st – easy if you think about it !

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