

# German National Committee on Global Change Research Tasks & Activities

## Organisation

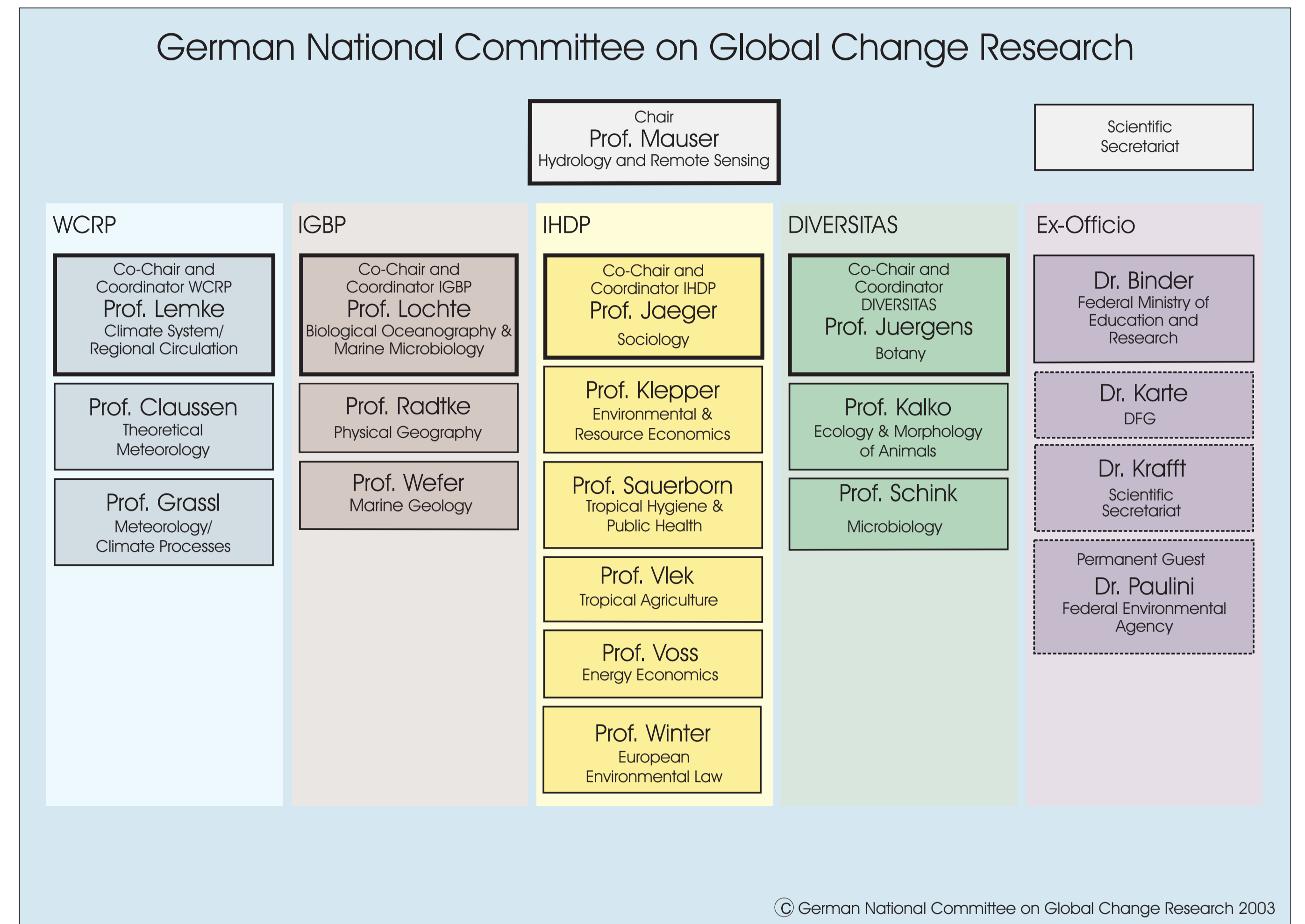
The German National Committee on Global Change Research (NKGCF) was constituted in October 1996 by Germany's major research funding agency, DFG, in close collaboration with the Federal Ministry of Education and Research (BMBF).

As a scientific advisory committee to the DFG and the BMBF the German National Committee plays a significant role in the process of identifying research priorities and in stimulating German contributions to the four international programmes on Global Change Research.

Bringing together scientists from all fields of Global Change Research and from the four international programmes under the umbrella of one committee Germany has anticipated early the need for close collaboration of all scientific disciplines for Global Change Research within the framework of the Earth System Science Partnership. This organisation enables the National Committee to efficiently support the Earth System Science Partnership and to contribute to the development of the new joint projects.

NKGCF:

- **Scientific Secretariat** in Munich as national contact point and co-ordination office
- Four regular **Committee meetings** per year
- **Ad hoc working groups** to discuss and review innovative research initiatives
- **Scientific workshops** to develop new methodologies and scientific programmes
- **National Colloquiums** to discuss achievements and future needs of the Global Change Research Programmes

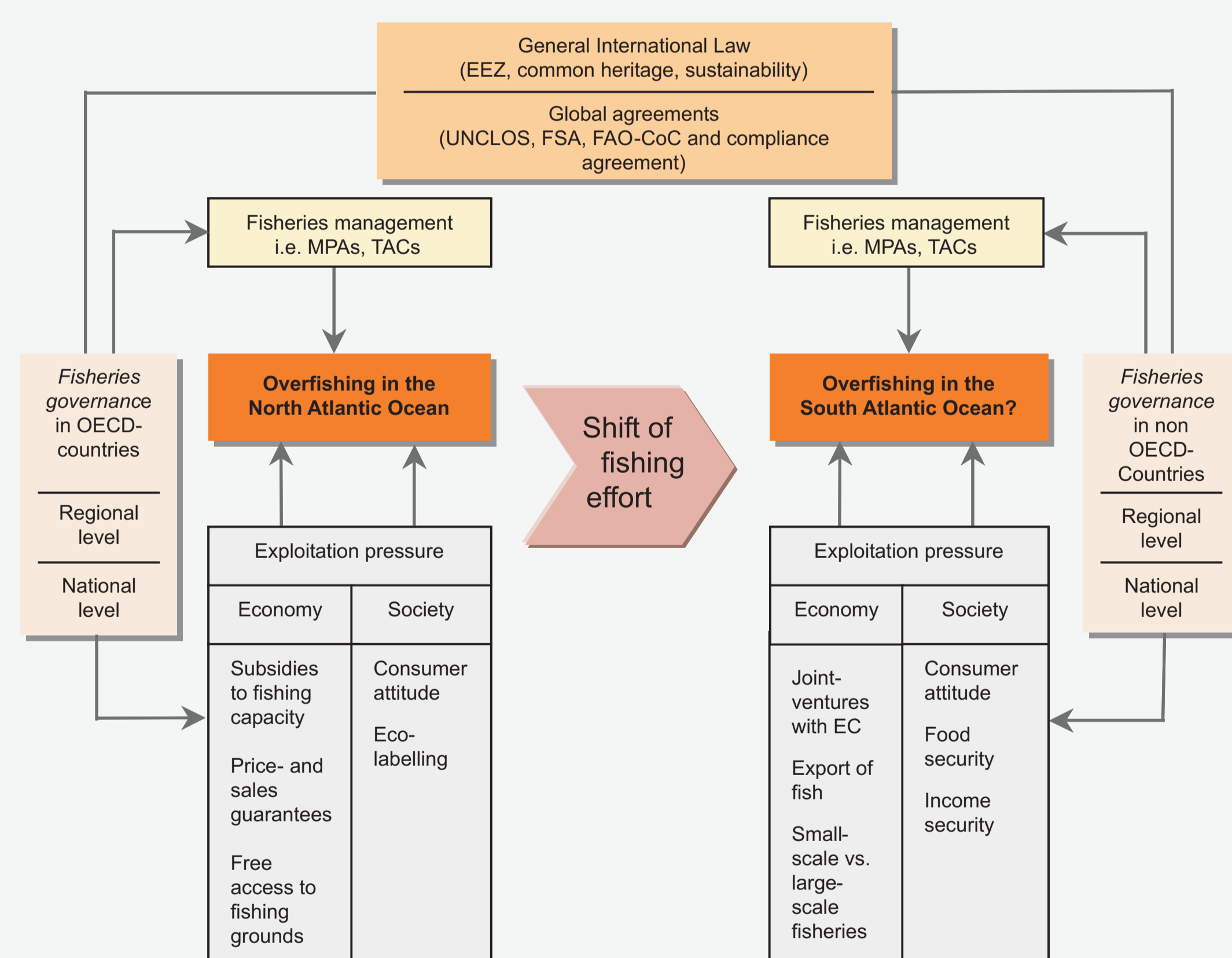


## Examples of German Contributions to the IHDP

### Transnational Institutions on Environment (TIE)

A network of researchers and practitioners with legal, economic and sociological background has been formed as a Germany based contribution to IDGEC. Transferring earth system analysis from natural to social sciences the group explores how international, transnational, national and societal institutions contribute to global environmental syndromes, and how institutions can be employed to prevent damage and raise resilience capacities. Models of interaction of behavioral, natural and institutional factors shall be developed. At an international conference to be held in Bremen, January 22-24, 2004, first research results will be presented. They include analyses of sovereignty, environmental protection principles in national and international law, the scaling up of instruments to the global level, tensions between and collaboration of international organisations, transnational bureaucratic networks, self-regulating of transnational corporations, and horizontal diffusion of environmental exploitation and protection concepts.

For further information contact Prof. Gerd Winter, Research Center for European Environmental Law (FEU), University of Bremen (feu@uni-bremen.de; <http://www.uni-bremen.de/~feu>).



### Contribution to the new Joint Project on Global Environmental Change and Human Health

#### "Impacts of Thermal Stress on Human Health"

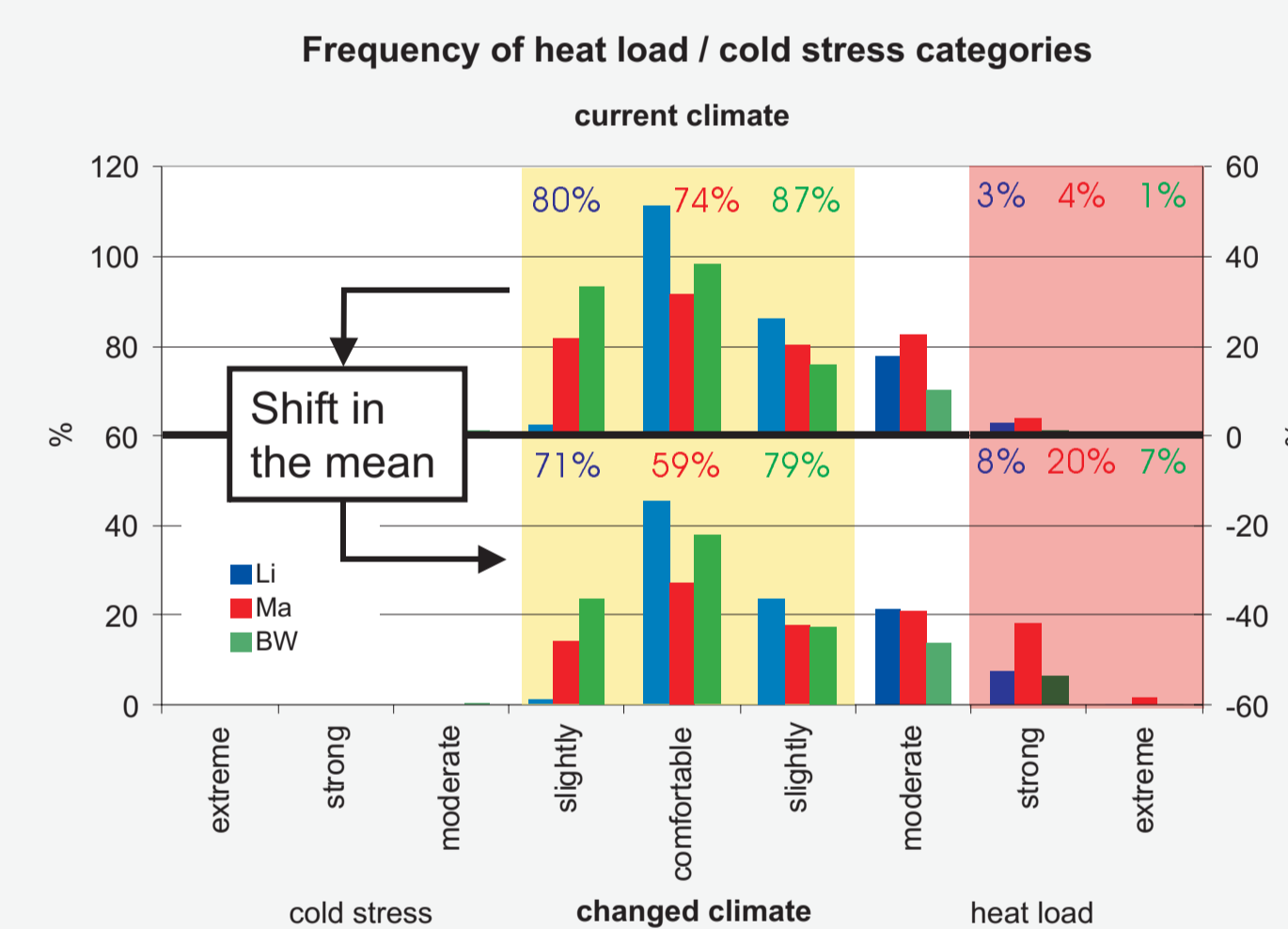


Fig. 1: Climate change and heat waves

Global climate change is likely to be accompanied by an increase in the frequency and intensity of heat waves, as well as warmer summers and milder winters (IPCC 2001). If no adaptation takes place, it is likely that an increase in the frequency and intensity of heat waves will increase the numbers of premature deaths from hot weather (cf. Fig. 1).

The new ESSP joint project on Global Environmental Change and Human Health will i.a. focus on climate change impacts.

The heat wave in West and Central Europe in August 2003 caused according to some official estimates more than 10,000 premature deaths in France and about 1,300 in Portugal (Falcao et al. 2003). It is very likely that the recent heat wave has caused an increase in mortality also in other European Countries.

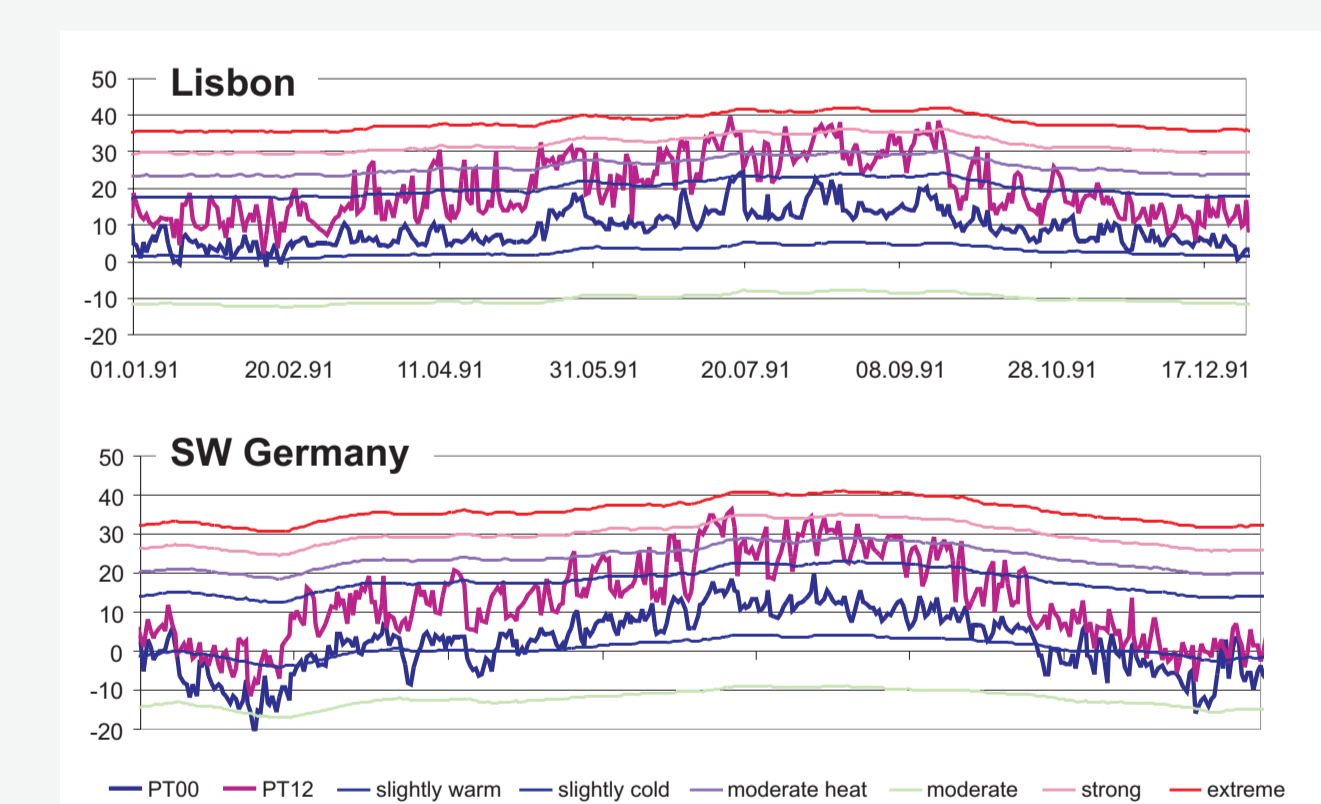


Fig. 2: Threshold values for heat load and cold stress

For further information please contact Prof. Jendritzky, German Meteorological Service (DWD); Gerd.Jendritzky@dwd.de; <http://www.dwd.de>

Most existing methods to forecast heat load have the drawback of depending upon absolute or relative threshold values, for setting of an „heat alarm“. A new method developed by the German Meteorological Service (DWD) is based on absolute threshold values of the Perceived Temperature as well as relative values reflecting acclimatisation processes. The advantage of this method is the inclusion of acclimatisation processes. Therefore no adjustment of the heat load forecast to local climate conditions and no preliminary fixing of the summer season is needed in contrast to other forecast methods. The new method depends on a comprehensive heat balance model ensuring its physiological relevance.

Fig. 2 shows modelled threshold values for heat load and cold stress based on data for the year 1991 for Lisbon and West Germany. As daily maximum values data from 12 a.m. is used, for the minimum values data from 12 p.m. Threshold values setting of heat alarms are shifting over the year.

## NKGCF Publications

