GICC, THE FRENCH RESEARCH PROGRAMME ABOUT MANAGEMENT AND IMPACTS OF CLIMATE CHANGE

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Global environmental and climate conditions fluctuate on all kind of spatio-temporal scales. Some fluctuations or change/trends are not only anthropogenic, but have different regional and national signatures. While the frequency of extreme events on smaller scales is changing, the public sector and general opinion become more and more aware and concerned of local impacts from global environmental and climate changes. Indeed, negative effects and feedbacks, might occur on ecosystems, natural resources, buildings and grounds, superstructures, economies, food security, public health... This is how, during 1999, a concerted French initiative led to the research program 'Management and Impacts of Climate Change' (GICC in French), under the aegis of the Ministry for Ecology and Sustainable Development (MEDD) and the Interministerial Mission about Greenhouse Effect. (MIES).

The mission of GICC is to promote and develop French scientific research on identifying national impacts of climate change and associated physical mechanisms. The main objective, downstream, is to provide sound scientific arguments in order to participate in the tuning of adaptive tools and techniques. This will allow policy and decision makers from the public sector to <u>optimise</u> strategies for prevention and mitigation of those impacts. This is in-line with international discussions and results from the UNFCCC and the Kyoto Protocol. It also fits directly within the government objectives of the 'National Plan to combat Climate (PNLCC)' and of the 'National Observatory of Climate Warming Impacts (ONERC)'.

Since 1999, GICC has been going through two phases, GICC-1 (1999 to 2003) and GICC-2 (2003 to 2006).

<u>GICC-1</u> supplied various stakeholders with sound scientific basis to set up the so-called 'Climate Plan' which is to contribute to the PNLCC, and is based upon three principles :

- Insure that France follows agreements from the 'Kyoto Protocol';
- Participate in ways and means leading to reduction of greenhouse gases by 75% in 2050;
- Allow for reduction of pollution from transportation means.

A symposium presenting the results of the GICC first phase took place in MEDD, Paris, 23rd November, 2004. <u>These results are the basis of the present paper.</u>

The second phase <u>GICC-2</u>, while still being concerned by frequency of extreme events potentially linked to climate change is also favouring the identification of regional socio-economical impacts leading to strategic mitigation of impacts including innovative technologies, and linkages with the living world, public health, biodiversity, emerging and re-emerging diseases.

The five themes addressed now by GICC-2 are as follows:

- Theme 1 : Decision making schemes, national players within the international scene ;
- Theme 2 : Strategies to curb greenhouse gases (GHG) emission. Adaptation to regional impacts of climate change ;
- Theme 3 : Sources and sinks of GHG ;
- Theme 4 : Climate change and public health ;
- Theme 5 : Climate change and biodiversity.

In addition, it should be underlined that GICC is preparing a <u>co-ordination with similar European</u> research programmes through the so-called CIRCLE concerted action led by the Austrian Environmental Agency and presented by Dr. Martin Kônig in the present Conference.