Socio-economic impacts of natural or human threats on the forest sector: some results of the French German expertise on drought and heat 2003

Dr. Lisette Ibanez, Prof. Dr. Jean-Luc Peyron, Dr. Stéphane Couture
Forest economics laboratory, joint research unit ENGREF/INRA-ENGREF, 14, rue Girardet, CS 4216, F54042 Nancy Cedex, France, ibanez@nancy-engref.inra.fr

All sorts of damages follow phenomena due to climate events or human activities such as heat, drought, frost, storms, diseases, pollution or global changes. They might occur immediately or in the future, directly or indirectly. They might be visible or not, certain or less predictable, concentrated on a specific area or more diffused. They concern not only forests but also forest-related activities and uses. They are influenced by the context in which they take place and by both prevention (ex-ante) and mitigation (ex-post) policy measures. All these issues have to be analysed on an economic point of view in order to assess the actual consequences of such phenomena. This assessment helps to define the right strategies and policies, then to evaluate decisions. However, it can only be rigorously drawn with delay. Consequently, past experiences are very valuable to prepare this work, foresee some impacts, adapt efficient methods, estimate parameters and, finally, point out remaining questions that could necessitate additional researches.

From the analysis of existing literature, widely published or not, most of socio-economic impacts of natural or human threats on the forest sector have been studied together with associated evaluation methods in the frame of the French German expertise on drought and heat 2003. They comprise direct consequences on forests, direct and indirect consequences on forest activities and uses, feedback effects on forests, prevention measures, background influence, and mitigation measures. From this analysis, a first assessment of the main consequences of drought and heat 2003 is possible. Recommendations for risk management can be provided (prevention measures). Mitigation measures are also discussed. Later on, recommendations for future monitoring and research result from this analysis.