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Living with Storm Damage to Forests

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Abstract:

Storms are responsible for more than 50% of all abiotic and biotic damage by volume to European forests (~2 catastrophic storms per year). Such storms can have important economic, ecological and societal impacts, which can last for many years. There is now evidence of increasing levels of damage, increasing storm intensity and penetration of storm tracks further into mainland Europe. Damage levels are expected to double, and possibly quadruple, by 2010 and analysis suggests that both modern management of forests (extension of forest areas, reduced species composition favouring conifer monocultures, and increasing top height and standing volume) and the changing climate are contributing to this increase. Calculations also suggest that storm damage results in an annual reduction of 2% in the carbon sequestration by European forests and this could exceed 5% by 2100. Managing the risk of storm damage should be a priority by developing forest storm risk management plans and procedures for dealing with the aftermath of storms at regional, country and European level. In addition our future forests need to be more stable and resilient ecologically and economically and we need to provide forest managers with effective means for implementing forest risk management plans. This requires a holistic approach to storm damage by linking research, information, operational procedures, experience, and technology transfer across Europe with the active engagement of all relevant stakeholders.

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