



Forests and floods in Latin America: science, management, policy and the EPIC FORCE project

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The EPIC FORCE project (Evidence-based Policy for Integrated Control of Forested River Catchments in Extreme Rainfall and Snowmelt), aimed to clarify the issue of forest impact on flood response for extreme rainfall and snowmelt events and thence to develop science-based policy recommendations for integrated forest and water resources management, relevant to the Latin American environment (specifically Costa Rica, Ecuador, Chile and Argentina). Data analysis and model application support the hypothesis that, as the size of the flood peak increases, the effect of forest cover becomes less important. Guidelines for integrated water and forest resources management are developed which recognize this effect but emphasize the role that forests play in reducing the flood levels of more moderate events and in reducing soil erosion and sediment loads. Large woody debris in river channels is shown to have important benefits. The research findings are transferred to policy-making for the four Latin American focus countries, taking into account the institutional frameworks, achievable policy objectives and key stakeholders. Policy briefs have been produced at the

local, national and international level and project results have been adopted in national policies. The project shows how an advance in scientific understanding can support improvements in management practices and policy formulations which affect people and the environment in which they live.