

ABSTRACT:

Interdisciplinary Research as a Strategy for Environmental Science and Management in Brazilian Amazonia: Potential and Limitations

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Interdisciplinary research has wide applicability to the environment and its management, and few areas can rival Brazilian Amazonia in terms of interdisciplinary challenges. Interdisciplinary research refers to studies that not only include more than one of the traditional academic disciplines but also draw conclusions that emerge from including information and methods from the different disciplines together. Brazil's Ministry of Science and Technology currently makes interdisciplinary research an explicit priority, and to this end directs financing to large networks of researchers working in different institutions and fields.

With a forest the size of Western Europe, in addition to a variety of savannas and other habitats, Brazilian Amazonia has a range of vegetation types, biological interactions and geo-chemical processes with global significance for both biodiversity and climate. The combination of rapidly advancing deforestation and a large area of forest that is still standing gives particular urgency to understanding the biological and social processes in this region, and to applying this understanding to public policy. Deforestation and degradation through activities such as logging are the major processes from which biological, climatic and other consequences ensue. These land-use transformations cannot be predicted or controlled unless they are understood, thereby requiring knowledge of social processes. Interdisciplinary research has an important role in this, but it also has limits.