

FOREWORD

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The rate of destruction of tropical forest is mind-boggling even to those of us familiar with chainsaw and bulldozer. Figures on acreage cleared each year are so high as to numb the mind. The political and economic pressures on tropical forest lands seem to be irresistible, but resisted they must be. It behooves those of us working in tropical forests to present cogent economic and political, as well as biological, reasons to halt what appears to us to be short-sighted exploitation of such a world resource.

The Mesoamerican Ecology Institute assembled five students of those forests and their people, who have been supported in their efforts by the Mesoamerican Ecology Institute, to speak on various aspects of tropical forests. We present these talks to join our voice to those of other concerned organizations. Our approach was to point out the complexity of these ecosystems, their genetic diversity, how various people, indigenous and otherwise, perceive this destruction and accommodate to it, why the forests are being destroyed, and the economic consequences of such destruction. Dr. Thien has investigated forest structure and pollination mechanisms in tropical forest of both hemispheres. He is vividly aware of the delicate balance of these ecosystems and how fragile they are. Dr. Arturo Gomez-Pompa makes the argument that the genetic diversity of tropical forests is a rich larder for mankind's betterment. As former Director General of the National Institute for the Investigation of Biotic Resources of Mexico

and as a prominent member of the Mexican team that located and studied the pharmaceutically invaluable *Dioscorea* of Mexico; he is well qualified to speak on this subject.

Dr. James Nations is well-known for his studies of the Lacandon Maya and for his knowledge of forest destruction to produce food, not for local consumption but for export markets. His paper reveals forest destruction not for the benefit of what is often a malnourished local population but for the "fast-food" market in distant countries. Everyone, sooner or later, loses when complex, genetically diverse ecosystems are converted into ecologically and genetically simplified ones. The loss is amplified by several magnitudes when we realize that frequently the soon abandoned grasslands which replaced the forests prevent the return of the forests. Species, many unique and many of future economic value, have disappeared forever. The ancient rule to make changes slowly has particular pertinence when dealing with forest ecosystems.

Dr. Sullivan demonstrates how the Maya of Quintana Roo, Mexico use this rule to the extent they can under modern pressures. The flexible system used by these indigenous people to cope with modern innovations under sometimes inappropriate conditions may teach us valuable lessons in exploiting tropical forests.

Finally, Mr. Hazlewood of the World Resources Institute recapitulates the devastating effects of deforestation and emphasizes the economic impacts on agriculture, energy, forestry, and health.

Mr. Hazlewood stresses the need to increase political awareness of the problem of deforestation and spur action by a more comprehensive accounting of the economic costs of forest depletion. He further points out the effects of land use policy (open access) in accelerating deforestation. As Dr. Gomez-Pompa and Mr. Hazlewood point out, deforestation is not generally recognized as a major public policy issue. Perhaps, the economic analysis of the type proposed

by Mr. Hazlewood will clarify the economic benefits of sustainable forest management and move the question into the public policy arena.

We at MEI hope that this symposium and others like it will stimulate more public awareness of the consequences of tropical deforestation. Efforts such as these may help governmental and developmental agencies to increase their efforts to preserve tropical forests.