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REVIEW OF:

AMAZONIA: RESILIENCY AND DYNAMISM OF THE LAND AND ITS PEOPLE.
by Nigel J.H. Smith, Emanuel Adilson Serrão, Paulo T. Alvim and
Ítalo C. Falesi. (United Nations University Press, Tokyo. 1995).
253 pp. (ISBN 92-808-0906-7)

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As the "resiliency and dynamism" emphasized in this book's subtitle suggests, the volume attempts to make the case that Amazonia can withstand virtually any environmental assault and still come out ahead, with its population living in ever better conditions. Needless to say, the same set of 'facts' can be interpreted in other ways, as has often been the case with this reviewer. The authors of the volume will be well known to anyone who has followed the debates surrounding Amazonian development issues over the past 20 years. Understanding the arguments on all sides of the controversies touched by this book is essential for any reader.

The book presents descriptions of a wide variety of land uses in Amazonia with a view to showing that "Deforestation does not necessarily mean environmental degradation" (p. 47). The authors conclude that "Our main message is that many positive trends are under way that auger well for the long-term future of the region" (p. 200).

The authors minimize the potential importance of what they call the "purported" global warming trend (p. 15). They suggest that global climate models represent "a tenuous basis for drawing policy conclusions" (p. 16). I would suggest the Intergovernmental Panel on Climate Change (IPCC) reports as a good source of information--a body of work rather conspicuously missing from the book's review of global warming. While substantial uncertainties are recognized by the IPCC, the notion that these mean that we should draw no policy conclusions (and,

by implication, do nothing) is not the appropriate deduction.

A similar stance is taken on the potential impact of Amazonian deforestation on the hydrological cycle, alleging that "current models of forest and climate interactions in Amazonia are too imprecise to predict with any degree of certainty the impacts of deforestation on rainfall" (p. 20). I find such statements rather amazing: while one may argue about what constitutes "any degree of certainty," the direction of expected change toward drier climate in a deforested Amazonia, and its policy implication that large areas of forest should be maintained, are, I would say, quite strong enough to serve as a basis for policy.

The book has a pattern of minimizing environmental impacts and exaggerating the benefits of different development initiatives. The employment benefits of the Tucuruí Dam could not provide a better example. The authors emphasize that the dam "created jobs, such as at the aluminum smelting plant at Barcarena" (p. 29). They do not mention that the number of jobs created by the smelter at Barcarena is only 1200. This smelter, together with one in São Luís employing 750 people, consumes two-thirds of the power produced by Tucuruí--a dam whose financial cost (including interest) has been estimated at US\$ 8 billion.

Appeals to inevitability are used to downplay the role of various actors in the process of opening up Amazonia. The authors believe that "the building of roads into Amazonia was inevitable" even without such stimulants as loans from multilateral development banks (p. 60). The book minimizes the speeding deforestation caused by development projects, such as the POLONOROESTE project that paved the BR-364 Highway through Rondônia. The authors claim that "asphalting highways does not necessarily speed up settlement; rather, all-weather roads increase land values and farmers may be more inclined to invest in more intensive farming methods" (p. 60). While individual lots may be found where this scenario holds, acceptance of this as a generalization about the effect of road improvement on deforestation would be disastrous. No better example could be had than POLONOROESTE, deforestation from which probably ranks as the World Bank's greatest environmental embarrassment ever.

The authors consider it a "myth" that "pasture formation in Amazonia is the principal cause of forest destruction" (p. 161).

This is argued based on the existence of cattle-raising in natural savannas (hardly a relevant fact), and that a part of the land that winds up in pasture is first planted to annual crops. The authors conclude that "It is thus difficult to assign with any degree of accuracy the proportion of deforestation due to cattle-raising" (p. 161). Maybe so, but the obvious complete dominance of deforested landscapes by cattle pasture in Brazilian Amazonia should be sufficient to conclude that pasture plays a

key role, and to indicate that any package of policy measures designed to contain deforestation must include ways of dealing with this reality.

Assertions are made repeatedly that "If farms, ranches, plantations can be made more productive then people living in Amazonia are more likely to set aside and safeguard large areas of the world's largest remaining forest wilderness for future generations" (p. 77). Evidence for this is not presented. The pattern more apparent to this reviewer is the opposite: when it becomes profitable to cut down the forest to make way for ranches or any other land use, then the pressure for deforestation is increased rather than diminished. This is not to say that productivity should not be increased, but the reason for doing so is not that people will be satisfied with their level of income and forego investing in further clearing.

The authors propose increasing herds in the várzea (floodplain) dramatically from 6 to 30 million head (p. 183). The inevitability of history (and even prehistory) is invoked: "short of unleashing a Jurassic Park, no policy action is likely to rid the flood plain of cattle" (p. 194). Although the authors acknowledge the conflict that expanding cattle herds would have with the small farmers who presently occupy most of the várzea (p. 196), this does not seem to dampen the authors' enthusiasm for handing the richest soils in the region over to wealthy cattle barons.

The book looks askance at the role of non-governmental organizations (NGOs) in Amazonian development matters (e.g. pp. 65, 208). Indigenous peoples and extractivists are portrayed as manipulated by foreign environmentalists. Xenophobic statements from the Brazilian press are cited on several occasions without any qualifying comment on the part of the authors to identify the charges as false--for example the notion that proponents of extractive reserves might be trying to "internationalize" the Amazon Region (p. 78). Extractive reserves are portrayed as an artifact of "international pressure" (p. 77). I found the book's treatment of Chico Mendes lamentable (p. 78). His defense of measures to raise the living standards of rubber tappers is correctly mentioned, but the book attempts to suggest that he did not also have strong convictions regarding the environment (and that his environmentalism was an invention of foreign NGOs). I, for one, can testify to the contrary.

While the book's treatment of broad policy issues is open to considerable debate, it does make useful contributions of information at a more detailed level. An example is the survey of agroforestry systems in use by settlers in different parts of Amazonia. Useful information is cataloged on experience and problems with a wide variety of crops, particularly perennial crops. This information is potentially quite valuable. The

problem with this book is that the reader must know Amazonia well in order to be able to separate the many useful facts and common sense observations from the authors' flights of fancy.

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