

Contents

	<i>Foreword</i>	<i>ix</i>
	<i>Preface</i>	<i>xi</i>
	<i>Contributors</i>	<i>xv</i>
	<i>Acronyms and Abbreviations</i>	<i>xxi</i>
I	<i>The Problem and Approach</i>	
1	Alternatives to Slash and Burn: Challenge and Approaches of an International Consortium	
	<i>Pedro A. Sanchez, Cheryl A. Palm, Stephen A. Vosti, Thomas P. Tomich, and Joyce Kasyoki</i>	<i>3</i>
II	<i>Thematic Research</i>	
2	Carbon Losses and Sequestration After Land Use Change in the Humid Tropics	
	<i>Cheryl A. Palm, Meine van Noordwijk, Paul L. Woomer, Julio C. Alegre, Luis Arévalo, Carlos E. Castilla, Divonzil G. Cordeiro, Kurniatun Hairiah, Jean Kotto-Same, Appolinaire Moukam, William J. Parton, Auberto Ricse, Vanda Rodrigues, and Syukur M. Sitompul</i>	<i>41</i>
3	Greenhouse Gas Fluxes in Slash and Burn and Alternative Land Use Practices in Sumatra, Indonesia	
	<i>Daniel Murdiyarso, Haruo Tsuruta, Shigehiro Ishizuka, Kurniatun Hairiah, and Cheryl A. Palm</i>	<i>64</i>
4	The Potential Role of Above-Ground Biodiversity Indicators in Assessing Best-Bet Alternatives to Slash and Burn	
	<i>Andrew N. Gillison</i>	<i>83</i>

- 5 Below-Ground Biodiversity Assessment: Developing a Key Functional Group Approach in Best-Bet Alternatives to Slash and Burn
David E. Bignell, Jerome Tondoh, Luc Dibog, Shiou Pin Huang, Fátima Moreira, Dieudonné Nwaga, Beto Pashanasi, Eliane Guimarães Pereira, Francis-Xavier Susilo, and Michael J. Swift 119
- 6 Sustainability of Tropical Land Use Systems After Forest Conversion
Kurniatun Hairiah, Meine van Noordwijk, and Stephan Weise 143
- 7 The Forest for the Trees: The Effects of Macroeconomic Factors on Deforestation in Brazil and Indonesia
Andrea Cattaneo and Nu Nu San 170
- III *Site-Specific Alternatives to Slash-and-Burn Agriculture*
- 8 Sustainable Forest Management for Smallholder Farmers in the Brazilian Amazon
Marcus V. N. d'Oliveira, Michael D. Swaine, David F. R. P. Burslem, Evaldo M. Bráz, and Henrique J. B. de Araújo 199
- 9 Permanent Smallholder Rubber Agroforestry Systems in Sumatra, Indonesia
Gede Wibawa, Sinung Hendratno, and Meine van Noordwijk 222
- 10 Coffee, Pastures, and Deforestation in the Western Brazilian Amazon: A Farm-Level Bioeconomic Model
Chantal L. Carpentier, Stephen A. Vosti, and Julie Witcover 233
- 11 Smallholder Options for Reclaiming and Using *Imperata cylindrica* L. (Alang-Alang) Grasslands in Indonesia
Pratiknyo Purnomosidhi, Kurniatun Hairiah, Subekti Rahayu, and Meine van Noordwijk 248
- IV *National Perspectives*
- 12 The Western Brazilian Amazon
Judson F. Valentim and Stephen A. Vosti 265
- 13 The Forest Margins of Sumatra, Indonesia
Soetjipto Partohardjono, Djuber Pasaribu, and Achmad M. Fagi 291

- 14 The Forest Margins of Cameroon
James Gockowski, Jean Tonyé, Chimere Diaw, Stefan Hauser, Jean Kotto-Same, Rosaline Njomgang, Appolinaire Moukam, Dieudonné Nwaga, Théophile Tiki-Manga, Jerome Tondoh, Zac Tschondeau, Stephan Weise, and Louis Zapfack 305
- 15 The Peruvian Amazon: Development Imperatives and Challenges
Douglas White, Manuel Arca, Julio Alegre, David Yanggen, Ricardo Labarta, John C. Weber, Carmen Sotelo-Montes, and Héctor Vidaurre 332
- 16 Northern Thailand: Changing Smallholder Land Use Patterns
Plodprasop Suraswadi, David E. Thomas, Komon Pragtong, Pornchai Preechapanya, and Horst Weyerhaeuser 355
- V *Cross-Site Comparisons and Conclusions*
- 17 Land Use Systems at the Margins of Tropical Moist Forest: Addressing Smallholder Concerns in Cameroon, Indonesia, and Brazil
Stephen A. Vosti, James Gockowski, and Thomas P. Tomich 387
- 18 Balancing Agricultural Development and Environmental Objectives: Assessing Tradeoffs in the Humid Tropics
Thomas P. Tomich, Andrea Cattaneo, Simon Chater, Helmut J. Geist, James Gockowski, David Kaimowitz, Eric F. Lambin, Jessa Lewis, Ousseynou Ndoye, Cheryl A. Palm, Fred Stolle, William D. Sunderlin, Judson F. Valentim, Meine van Noordwijk, and Stephen A. Vosti 415
- Index* 441