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1 Methodological Background1.1 Introduction; 1.2 Food Security; 1.3 Geography; 1.4 Development; 1.5 Approach; 2 Status of Food Security in the Wider Mekong Region; 2.1 Food and Population; 2.2 Food Resources; 3 Consequences of Economic Development for Food Security; 3.1 Dams on the Mekong Mainstream; 3.2 Large-Scale Mekong Water Diversion: Thailand and Lao PDR; 3.3 Mitigation and Adaption to Rising Sea Levels in the Mekong Delta; 3.4 Industrial Crops: The Case of Rubber; Transportation Infrastructure: The Case of the Yunnan-Cambodia Railway
Mining: The Case of the Bauxite Triangle (Lao PDR, Cambodia, Vietnam) Cumulative Impact Assessment; 5 Conclusion; References; Chapter 4: Impacts of Natural Resource-Led Development on the Mekong Energy SystemTira Foran; 1 Introduction; 2 Scale and Dynamics of Energy System; 2.1 Trajectories; 2.2 Institutional and Governance Dimensions; 3 Method; 3.1 Approach to Energy Security; 3.2 Reference Scenario; 4 Impact Assessment; 4.1 Mainstream Hydropower Dams; 4.2 Water Diversions from Laos into Northeast Thailand; 4.3 Sea-Level Rise and Adaptation Strategies in Vietnam's Mekong Delta
4.4 Rubber Plantations

Sommario/riassunto

This book provides a cross-sectoral, multi-scale assessment of development-directed investments in the wider Mekong Region. The wider Mekong Region includes Lao PDR, Cambodia, Thailand, Vietnam, Myanmar and the Chinese Province of Yunnan. This book gives important insight into how future sustainability will depend on the development of effective governance mechanisms at the level of the Mekong region. Evidence highlights a limited set of critical dynamics that generate a high level of connectivity between these countries, including human migration, natural resource flows and increasing levels of private and State financial investments. Besides regional connectivity, this assessment considers cross-sectoral implications, in particular those between the water, food and energy sectors. The majority of nationally planned and implemented development decisions in the wider Mekong Region aim for either improved water access, increased energy supply or improved food security. Investments in any of these three sectors are critical as they are closely linked, harbouring potential trade-offs and unintended side effects. Successfully managing the water, food and energy nexus demands an understanding of direct and indirect connections. A few identified connections are direct trade-offs, for example the use of water for either food or energy crops. Other connections are indirect and their estimated magnitude suggests their critical importance. Identified nexus criticalities include fish stock management, land tenure, risk management of monoculture plantations and migration dynamics. The sustainability of the wider Mekong region will partly depend on how successfully these processes can be managed. Managing nexus criticalities, in contrast to specific sectoral investments, represents an

alternate and potentially effective locus of policy intervention and initiative. Using case studies that include mainstream dams in the lower Mekong basin, water diversions between Lao PDR and Thailand, investments in response to rising sea level, this volume provides critical information for researchers and policymakers. The research was generously funded and supported through the AusAID CSIRO Alliance. .