ASIAN-PACIFIC ECONOMIC LITERATURE

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doi: 10.1111/apel.12386

BOOK REVIEW

Transforming Borneo: From Land Exploitation to Sustainable Development
Chun Sheng Goh and Lesley Potter
ISEAS Publishing, Singapore, 2023
Pp. 358. ISBN 978 9815 011647

This book should be compulsory reading for anyone interested in the geography, history, and economics of land use change in Southeast Asia, for at least four reasons.

Borneo, the world's largest island, is a perfect scale to analyse the dynamics of transformation and settlement of the tropics, and to do so in different jurisdictions: three countries (Malaysia, Indonesia, and Brunei); the two Malaysian states of Sarawak and Sabah; and the five Indonesian provinces of North, South, East, West, and Central Kalimantan. These jurisdictions have much in common but yet differ so much in their details. They provide a 'natural policy experiment' to observe how different governance arrangements and policy settings have played out over the past 50 years, across what was once one large island with distinctive communities, flora, fauna, and landscapes.

The authors manage multiple scales of analysis zooming in and out seamlessly from global markets for inputs and products and global environmental concerns, all the way down to detailed studies of how change occurs at the micro or village scale, and how that impacts communities, the economy, and landscapes at that scale.

The breadth of analysis is very ambitious. Although the book might be seen as studying the patterns of economic geography over time, the authors attempt to integrate across economic, social, and environmental transformations and how these are deeply interconnected.

The book provides a comprehensive literature review across all the dimensions of transformation across these multiple jurisdictions, as illustrated by the very diverse and comprehensive bibliography which itself extends over 90 pages. It is, however, of variable quality, ranging from definitive peer-reviewed scientific papers to newspaper reports and some NGO pamphlets so the readers are left to draw their own conclusions about the credibility and authority of some sources of evidence. But it is worth buying the book for the bibliography alone!

As described in the introduction (pp. 8–9):

> This book allows the authors to verify the robustness of different strategies and narrow the set of possible alternatives that can be employed in different contexts, by examining questions like 'does what makes sense for big players also work for smallholders?' or 'does what fails in Central Kalimantan also fail in Sabah?'
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> The book attempts to systemize the strategies proposed or implemented to transform the land-based economies in Borneo and explores the underlying dynamics in addressing the big questions: how to improve livelihoods, not only without causing further environmental impacts but also repairing the damage that has been done in the past. The book is essentially in two quite different halves. The first assembles and analyses an extraordinary amount of

Disclosure: Neil Byron has been a colleague and friend of Potter, and admirer of her prolific research, for 35 years. His wife co-authored books with Potter, including *In Place of the Forest* (UN University Press, 1995). As Assistant Director General of the Centre for International Forest Research (1993–98), Neil had responsibility for the CIFOR research forest—some 300,000+ ha of remote and barely accessible forest in the Malinau region of East Kalimantan, managed for conservation and social-environmental research (no timber harvesting). A 2017 visit revealed that the forest has been depleted, replaced by mines, oil palm and rubber plantations, and related infrastructure and urbanisation. That part of Borneo (now in North Kalimantan) had been transformed beyond recognition in less than 20 years.

> physical and economic data on the type and extent of biological production activities for each of the sub-national jurisdictions, over the past 20–30 years. In effect, the whole of Borneo was seen by national, state, provincial, and local governments, as a resource frontier, to be exploited and colonised, to provide world markets with commodities like timber, coal, rubber, and oil palm. There are detailed analyses of the variability of each of these markets over time, and of the consequences arising from attempts at large-scale industrial exploitation. Fifty years of reckless or careless exploitation of forests and peatlands was probably never intended to be 'sustainable' just 'get rich quickly and get out' mentality.

But the authors argue that, from about 2010, that picture changed dramatically—but not simultaneously or uniformly—across all jurisdictions and all sectors (although one might wonder about the extent to which it persists in parts of the national capitals of Kuala Lumpur and Jakarta). They attribute this broad-scale and somewhat radical change to the convergence of three concerns: the sustainability and viability of cash cropping; pressure for climate change mitigation through reducing carbon emissions from logging, coal mining, and peatland disturbance; and international concern about transboundary haze (which further increased in 2015). The analysis covers such diverse issues as the 'Nationally Determined Contribution' under the UNFCCC, the 'Heart of Borneo' collaborations inspired by the Convention on Biodiversity, and voluntary product certification for EU markets, especially the Forest Stewardship Council for timber and Roundtable for Sustainable for Palm Oil (RSPO). The consequences of such attitudinal changes seem to be greater concern about achieving and demonstrating greater environmental sustainability through agronomic intensification (instead of continuously expanding the area under low-productivity cultivation) and through voluntary certification processes.

An interesting and important discussion occurs about page 41, with the assertion (implicitly accepted) that *intensification* of agriculture will displace/prevent *extensification* and deforestation. In fact, the evidence shows that vastly different production systems for the same crop, can co-exist for decades, for example, 'jungle rubber' in Indonesia versus large capital-intensive rubber plantations in Malaysia; smallholder versus estate oil palm; and so on for tea, coffee, cocoa, coconut, etc. across Asia and the Pacific. In economic terms, the lowest cost producers (quality adjusted) survive, while producers at any scale—whose costs are too high, whose quality is too low, whose reliability of supply is too erratic—are likely to fail, regardless of their technology or capital-intensity. The assertion that improving average crop yields on existing farms will preclude others from going to the forest margins to create new farms seems to be based more on hope than on evidence. The bottom line seems to be that a new, viable value chain needs to be created, with multiple product lines and with scope for smallholder involvement. But it is difficult to see that being formulated and implemented by well-intentioned bureaucrats, at any level, and in any of the jurisdictions.

As one might expect in a book by two eminent geographers there are many excellent and detailed maps and illustrations. But while the description of what has occurred in these seven subnational jurisdictions over the past 20–30 years is very strong and compelling, some economists might find the analyses of the economic drivers of the transformations, and their economic and social consequences a little underdone. For example, on page 32 the explanation offered about why Sarawak had less burning to establish oil palm plantations than in Indonesia, was that Sarawak has higher average rainfall. An alternative explanation is that Sarawak does not have millions of formal and voluntary/spontaneous transmigrants desperately looking for an area of unoccupied land, which they can convert to a small oil palm plantation (who find that the cheapest means to do so is through lighting drying forests). In stark contrast, box 2.1 on oil palm plantations follows the Greenpeace line that all fires were lit by large corporates. Yes, the diagnosis and attribution is complex.

The second half of the book is forward-looking—are there alternative futures that offer less damage to the environment and to poor marginalised people, and previously-unthought-of pathways to prosperity? As a result, it is much less data-rich, the chapters are much shorter, much more speculative, and some might say naïve. It covers such topics as:

- the various international schemes for 'payment for environmental services' (PES) and

REDD+ [Reducing (Carbon) Emissions from Deforestation and (forest) Degradation plus] biodiversity offsets supported by International donors (for example, Norway's offer of US$1 billion to Indonesia for this purpose);
- paludiculture (growing commercial crops on peatlands and swamps, as an alternative to draining them to grow conventional crops) despite the observation (p. 131) that there are no successful examples anywhere yet;
- the emergence of the voluntary carbon market (especially in Sabah and Indonesia) to pay people to either store or to not emit carbon. A fascinating graphic on page 155 shows the volatility and counter-cyclic variations of the prices for palm oil and for carbon credits on the EU markets, which make it very difficult for Borneo landowners to predict future relative prices for either of their potential outputs. The biodiversity offsets market is even more fraught in the absence of a common metric;
- ecotourism and the evolution of a dynamic tertiary (services) sector as an alternative to extraction and processing of primary products;
- whether the digital revolution [artificial intelligence, cloud computing, the Internet of Things (IoT), 5G digital communications, and robotics] offers alternative pathways to a more benign, sophisticated, and sustainable development trajectory?

The conclusion (Chapter 13) tries to find glimmers of optimism from digital technologies although almost all the evidence they cite suggest the opposite—a background of repeated failures (thus far!) What is the equivalent of 'smart cities' or 'precision agriculture' when considering the future for jurisdictions that, until now, have all been land-based, infrastructure- and natural resource-dependent, with relatively sparse populations of very diverse, very poor people with limited education and technological skills?

Finally, throughout the book, there seems to be an unstated assumption that reliance on primary production (farming, mining, forestry, and fisheries) is *the* indicator of 'underdevelopment'. In order to avoid this stigma, it seems that many in these governments believe that Borneo has to be transformed again, to something modern and high-tech, with advanced processing plants and state-of-the-art technologies. Maybe I lack imagination but it is difficult for me to envisage Borneo (or even parts of it), resembling Singapore, Hong Kong, Kuala Lumpur, or even a tertiary economy like Bali or Penang. Will moving Indonesia's national capital from Jakarta to East Kalimantan precipitate such a transformation? *Mungkin!* (Perhaps).

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