



Book Review

The new biological economy: How New Zealanders are creating value from land

Eric Pawson, Richard le Heron, Hugh Campbell, Matthew Henry, Erena Le Heron, Katharine Legun, Nick Lewis, Harvey C. Perkins, Michael Roche and Chris Rosin.
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As an output of the New Biological Economies team's Marsden Fund project, this book sets out to describe and then implement an alternative way of examining New Zealand's primary production sectors and the processing, marketing, and selling of these primary products around the world. The introduction sets out the goals and objectives of both the project and this resulting book. Recognising that the introduction lacks some clarity as to how much of the project is being delivered in this 290-page volume (a summary of the findings), the authors also include guidance on how to read the book.

The subtitle for the book is 'how New Zealanders are creating value from the land', with individual chapters focusing on the values created through dairying, lamb production, merino wool, kiwifruit, apple production, wine, and rural tourism. The focus on specific industries is useful for briefly outlining the history of that industry, its spread around New Zealand, current issues and technological developments, and issues that challenge the viability of that industry. The dairying chapter, however, largely focuses on Fonterra and hence discusses being trapped within commodity markets where there is less value added to the product and more exposure to the fluctuations of international markets. The author could have instead focused on the smaller dairy companies that are sprouting around the countryside to provide more value-added dairy products, including those of sheep and goat.

The other industry-focused chapters look at the creation of value and by whom. For instance, one chapter details the development of the latest types of apples and their introduction to new markets, while another looks at the standardising and marketing of merino wool. Unfortunately, after that chapter was written, the book's preface explains that the main New Zealand-owned merino wool manufacturer, Icebreaker, was sold to an overseas company. My concern is that this sale reflects what has happened to New Zealand's biological economy for generations; farming families want to carry on their stewardship of the land while producing a better product, but New Zealand based processors of biological production sell their processing and manufacturing operations and intellectual property to overseas-based multi-nationals. This division between New Zealand producers and overseas-owned manufacturers risks devaluing New Zealand's biological economy to commodity-based products with associated low prices, while the overseas manufacturers capture the added value. This raises questions of whether there is a new biological economy and whether New Zealanders are not only creating value from the land but also capturing that value.

The approach of these industry-focused chapters provides useful background and an interesting use of descriptive geography to examine a specific industry or a specific place. While resource management issues are not specifically addressed in these chapters, each

industry's current and potential impacts on the environment are clear. For planners, this should assist in understanding what environmental impacts there are and what impacts there might be if a particular industry fails, continues, or expands into an area, district, or region.

Latter chapters also discuss the presence and interaction of industries within the Maori or Taniwha economy, on Banks Peninsula, Central Otago, and in Hawke's Bay. The authors explore the issues that can arise when one production sector crowds out other traditional industries in an area and the effects this has on resources. Again, this should assist planners when considering how different types and methods of primary production will affect, alter, and cause problems within a landscape. A key task for planners could be to anticipate primary production changes and their positive/negative impacts within the local landscape and use that information to develop plan changes that encourage or hinder such industries.

The final chapter describes Te Ipu Kai and the Food Innovation Network which provide opportunities for potential and existing companies to develop and test products without needing to invest in the equipment and premises. The authors' analysis of the benefits and pitfalls for the processors and the New Zealand biological economy were interesting as they drew attention to the government contribution through the infrastructure to assist firms develop new products in the biological economy, and the risks firms have of developing their intellectual property in a forum that publicises what firms are developing. It also highlighted that not only start-up firms are obtaining government assistance but also large New Zealand companies. The authors suggest that New Zealanders will benefit from such facilities in the form of shares in the processors. This idea warrants further action to ensure that taxpayers have a share of the profit they helped create when the business is sold to larger, often overseas, competitors.

In terms of how easy this book was to read, some diagrams appeared to be PowerPoint slides without the benefit of having a large wall

to display them, making some hard to read. The chapters were a lucky dip of simple enjoyable language, language filled with appropriate and interesting jargon, what appeared to be jargon for the sake of using it, or turgid prose that had me yearning for a red pen and feedback on the benefits of shorter sentences.

Overall, the book is a useful background document for planners who need to address primary production issues in their districts and regions. Where I would like to see the research extend next is into the intentions and commitment amongst New Zealand-based processors, manufacturers, and the government to capture the value generated from bio-economies within New Zealand. This too will affect the development and use of biological resources in different parts of New Zealand.

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