

# Preface

I first encountered the concept of “peak oil” in 2003 and was immediately struck by its profound implications for my academic discipline—economics—as well as for society more generally and especially for South Africa where I live. It was only 2 years later that I decided to pursue peak oil as my main area of research. At the time, very few people in South Africa seemed to know about the Hubbert peak, and the notion of resource limits was a taboo in mainstream economics, not to say society more generally. Fortunately, I soon became part of a small but dedicated network of people who shared my interest and concerns about peak oil. This book is the culmination of 8 years of research on peak oil and its implications for South Africa. It is a condensed version of my doctoral dissertation, which was accepted at Stellenbosch University in May 2012. The main message of the book is this: if we continue along a business-as-usual pathway of oil dependence, then we are destined for socioeconomic shocks and hardship; but if we proactively implement measures to mitigate the varied impacts of peak oil then we will be using this opportunity as a catalyst for creating a more sustainable future for our society and the natural environment we depend upon.

This book is written primarily for policy makers, government officials, academics, planning authorities, and business leaders in the fields of energy, transport, agriculture, economics, and social development. These are the people who have an opportunity to influence the development path of their country. But I hope that it will also appeal to and inform citizens concerned about our collective future, as political leaders often need prodding from their constituents. Although the book is largely a case study of South Africa, I firmly believe that it is of relevance to many other nations and to the world at large. This is because South Africa represents in many ways a microcosm of our global society—an uneasy mix of sophisticated industries and survivalist economies, wealthy elites and poverty-stricken millions. If this nation could wake up to the realities of an oil-constrained future and implement a range of mitigation strategies, it could serve as a model for the world on how to undertake a difficult socioeconomic transition from the fossil fuel era to a more sustainable regime. A key question is how our remaining stocks of fossil fuels can be utilized most effectively to enable this transition.

The bulk of the book is organised thematically according to five main subsystems of the South African socioeconomic system, namely, energy, transport, agriculture, economy, and society. Chapters 2–6 include a brief overview of each subsystem, an analysis of its oil dependencies, a discussion of the likely impacts of peak oil under a business-as-usual policy context, and a presentation of recommended mitigation strategies, policies, and measures. Chapter 7 places these policy recommendations within a broader conceptual framework informed by the literature on societal transitions to sustainability. This concluding chapter presents a preliminary vision of a post-oil, sustainable future, along with a transition action plan as a guide to its attainment, but also discusses the obstacles and risks facing implementation of such a transition plan. Finally, the chapter highlights some important areas for deepening the research.

I am grateful to many people for contributing in various ways to the underlying research and to the ultimate completion of this book. I owe an intellectual debt to the many pioneering authors—too many to mention individually—whose work I have drawn upon and whose ideas have helped to shape my own understanding of peak oil and its implications. The Centre for Renewable and Sustainable Energy Studies at Stellenbosch University provided a bursary which enabled my doctoral research. My PhD supervisor, Professor Mark Swilling, bravely took on what seemed at times like an impossibly broad topic and generously shared his insights, knowledge, and expertise in the area of sustainability. Fellow members of Professor Swilling's doctoral research group gave me feedback and encouragement at several research colloquiums, and my PhD examiners provided helpful suggestions for improvement of the dissertation. My fellow members of the Association for the Study of Peak Oil South Africa (ASPO-SA) have since 2006 provided an invaluable intellectual peer group, generating many stimulating discussions about peak oil and its implications for our country and the world as well as constructive criticism of many of my shorter articles.

On a more personal note, I am grateful to my mother and my late father for providing me with a foundation of unconditional love, support, and encouragement in all my endeavours and for providing me with the best possible educational opportunities at school and university. My daughter Jade is a constant source of inspiration and delight, with her inquiring mind, creative imagination, and appreciation of life. Above all, I thank my wife Jacqui for providing moral support, for sharing my passion for peak oil research, for being ever-willing to debate ideas, and for diligently proofreading my doctoral dissertation and the book manuscript.

Finally, I wish to acknowledge the friendly and efficient editorial support of the Springer team, led by David Packer and Sara Kate Heukerott, and the high-quality input and encouragement of series editor Professor Charles Hall.

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<http://www.springer.com/978-1-4614-9517-8>

Preparing for Peak Oil in South Africa

An Integrated Case Study

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2013, XVII, 123 p. 30 illus. in color., Softcover

ISBN: 978-1-4614-9517-8