

The Multifaceted Nature of Sustainability Challenges: An Engineering Perspective

The Multifaceted Nature of Sustainability Challenges

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ABSTRACT

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KEYWORDS

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Preface

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Jeremy Van Antwerp and Matthew Kuperus Heun
December 2019

Acknowledgments

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Introduction

2 1. INTRODUCTION



CHAPTER 2

Planetary Boundaries

4 2. PLANETARY BOUNDARIES



CHAPTER 3

Population

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CHAPTER 4

Affluence

8 4. AFFLUENCE



CHAPTER 5

Energy intensity of the economy

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CHAPTER 6

Carbon intensity of energy

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CHAPTER 7

Households

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Transportation

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CHAPTER 10

Land use and urban planning

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Government

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Personal action

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Author's Biography

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Jeremy Van Antwerp earned a Ph.D. in chemical engineering from the University of Illinois at Urbana-Champaign. More text here. More text here.

MATTHEW KUPERUS HEUN



Matthew Kuperus Heun is Professor of Engineering (mechanical concentration) at Calvin University in Grand Rapids, MI, USA. He earned an M.S. and Ph.D. in mechanical engineering from the University of Illinois at Urbana-Champaign and later worked at NASA's Jet Propulsion Laboratory and at Global Aerospace Corporation. He has been a visiting scholar at the Centre for Renewable and Sustainable Energy Studies at the University of Stellenbosch, South Africa. His long-term research question is “What is the relationship between energy and the economy when viewed through the lens of sustainability?” In addition to scores of articles, he is lead author of *Beyond GDP: National accounting in the age of resource depletion* [1] and a co-editor of *Beyond Stewardship: New approaches to creation care* [2].

28 AUTHOR'S BIOGRAPHY

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