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Book Review

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Book review

Methods for Sustainability Research

Janette Hartz-Karp and Dora Marinova (eds). Edward Elgar Publishing, Cheltenham, UK, 2017, ISBN 978-1-78643-272-8, £109-00, 319 pp.

The subtitle of the introductory chapter (13 pp.) of *Methods for Sustainability Research* captures the book's essence: 'Introducing pathways to hope'. The editors state that it 'is not a recipe-based sustainability cookbook', but rather discusses approaches, tools and advice. Worldwide consumption remains unsustainable despite the majority of consumers supporting more sustainable products and services. The legacy of industrialisation values economy more than society and environment, making change particularly difficult. Although the concept for the book occurred many years ago, the 'material, maturity, and momentum for change' enabled the book only recently. Notably, the UN Sustainable Development Goals (SDGs) appeared in 2016, with 169 target milestones and 230 indicators for measuring progress, 'many of which require improvement in measuring and data availability'. The book seeks to provide ways of 'thinking to translate sustainable concepts into meaningful empirical observations and operationalize theoretical concepts and explore potential future developments'. The editors and authors ask the current generation to engage actively with challenges, take responsibility for actions or inaction and use different approaches that produce more sustainable outcomes, rather than emphasise what is wrong with the ways of today. The methods described in the book facilitate 'the transition to sustainability through thinking and policies that would make the business-as-usual, unsustainability management models obsolete as unacceptable ways of governing, planning, operating, managing and evaluating'. The book strives to foster adaptive management enabled by social learning (pathways) that produces sustainable development (hope).

Methods for Sustainability Research is an edited volume written by 30 authors. It is presented in four parts and 19 chapters, plus an introduction and a conclusion section, as well as a nine-page index. Part I, 'More sustainable cities', has five chapters, all by different authors. Chapter 1 (15 pp.) focuses on transportation priorities and notes that transportation systems, in particular rail, cause land values to increase, which can be used to help finance infrastructure. This enables a city to build its transit and its transit-city fabric at the same time. Chapter 2 (14 pp.) discusses walkability and contains a checklist to help determine and assess the walkability of a locality and how it can be improved, which is linked to methods of analysis. Chapter 3 (17 pp.) compares 45 global cities' dependence on automobiles using the Millennium Cities Database for Sustainable Transport, which uses 69 primary variables to calculate 230 standardised variables. Chapter 4 (14 pp.) discusses methods for enabling residential building sustainability that integrate energy, water, materials and livability and notes that a number of obstacles prevent utilisation of higher-performance, sustainable housing, such as limitations of assessment tools, inadequate regulatory controls, poor building construction and occupant behaviour. Chapter 5 (15 pp.) describes models at global, regional and local scales in terms of the 'three pillars' of sustainability, which are the triple bottom line of economy, environment and society. The three models demonstrate limitations in attempts to isolate urban design, community facilities, ecological reserves, land use and transportation supply in debates on how best to direct investments towards the UN SDGs.

Part II, 'Better governance for sustainability', has five chapters by different authors. Chapter 6 (18 pp.) describes a new methodological framework for improving sustainability and climate change governance, with an aim to 'show how legitimacy can be enhanced with boundary processes that

enable reengagement among normally siloed domains of governance, knowledge, management, and the community (or constituency)'. Chapter 7 (16 pp.) describes deliberative democracy as a methodology, rather than as a toolbox, based on the principles of representativeness, inclusiveness, influence and egalitarianism, which cannot be standardised. It needs to be responsive to any sustainability challenge or opportunity that arises. Chapter 8 (13 pp.) suggests 'sortition' as an alternative to elections. It is a random selection or scientific sampling of people from the broader population as a 'mini-public' to perform some public functions, such as deliberation over some problem in order to develop solutions. Sortition can 'enhance sustainability by avoiding corruption of long-term concentrated power, as well as increasing representativeness and genuine problem-solving that involves receptive listening as much as speaking by tapping into diffuse experience and knowledge of society without the distortion of electoral imperatives'. Chapter 9 (15 pp.) recognises that much sustainability assessment practice fails to embrace uncertainty that is inherent in any consideration of the future and tends to focus on minimising negative impacts in the short term rather than delivering long-term positive sustainability outcomes. Chapter 10 (13 pp.) proposes that a test for new governance methods is the principle of the responsibility to protect, which applies to crimes against humanity. The responsibility to protect is poorly implemented, partially explaining why global governance is currently unsustainable.

Part III, 'Transitioning to more sustainable economies', has five chapters by different authors. Chapter 11 (16 pp.) recognises that a transition may be the only way to break from the current 'management of unsustainability', which perpetuates institutions, world views and discourses that guarantee business as usual. Grass-roots initiatives mobilise local actors, networks and organisations to create alternative paradigms of public value and governance in response to broad sustainability problems in their local city or region, which sparks the transition. The alternative, more structured transformation uses policy, planning and decision making interventions to bring about accelerated, systemic change. Chapter 12 (14 pp.) considers the ethical dimensions of economics as a basis for transitioning to sustainability. These dimensions are goodness (improve things where possible) and justice (avoid harm to others, including future generations). The principles, methods and scientific tools of ethical economics foster understanding of current conditions, existing and emerging trends and expectations for change and transformation towards sustainable development to shape transition policies and strategies. Chapter 13 (14 pp.) describes participatory budgeting as a methodology for addressing sustainability challenges. Participatory budgeting is defined as a type of democratic innovation that intervenes in institutional budgeting through negotiations between the local government and participants that are citizens and non-citizens, or at least inhabitants of a place yet not entitled to vote, such as commuters, migrants and children. Such budgeting has the potential for decision making to be more inclusive, transparent and accountable, which may lead to more equitable and sustainable outcomes. Chapter 14 (14 pp.) recognises that innovations are expected to be the building blocks for transitioning to sustainability and asks, 'do we understand what they are and their introduction into human practice?' Since the aim of innovation is to create valuable opportunities that businesses and society can exploit, it was originally linked closely to technological progress and defined as the outcome of commercialisation and implementation. It has evolved from being solely or largely a business or economic activity to also being a way to achieve broader societal and environmental goals. The global green system of innovation is faster,

multidisciplinary, collaborative and democratised and has global implications. A shift is in progress from technological innovations benefitting the human race at the expense of the natural environment and generating social division and inequality to a sustainability trajectory that puts business and people on a healthier path, which are articulated in the UN SDGs. Chapter 15 (15 pp.) describes a systematic framework for entrepreneurship and sustainability across four levels: meta, macro, meso and micro. The meta-level system shapes public attitude towards enterprise development for sustainability and influences the success of policies, programmes and services. The macro-level system deals with government policies, strategies and programmes that stimulate enterprise development for sustainability and demands a higher degree of coherence and integration across the range of government investments. The meso-level system regulates the economy and its actors, focusing on markets, institutions and legal and regulatory frameworks that govern business activity that national and subnational authorities administer. The micro-level system deals with the way that enterprises access the resources that they require to operate: financial, technical, managerial and physical resources, including raw materials, and customers. These issues affect the capacity of firms to compete, including their ability to learn and adapt to change. Ensuring that the elements of economy, environment and society are balanced and coherent across all four levels is the challenge for policymakers and practitioners, alike.

Part IV, 'More sustainable livelihoods and living', has four chapters by different authors. Chapter 16 (16 pp.) highlights the power of volunteerism as a method of building ownership and motivating and mobilising people to achieve the UN SDGs. Four methodological principles were identified: (a) build long-term partnerships and involve the local community and institutions, (b) encourage openness to mutual learning and exchange of expert knowledge with local wisdom, (c) create synergies among multiple dimensions of sustainability and (d) find reciprocal benefits and mutual accountability. Chapter 17 (15 pp.) identifies nine emergent characteristics common across rangeland restoration programmes, all of which are design-based and focus on creating new rangeland systems, rather than planning-based interventions seeking to achieve agreed goals. A few of the emergent characteristics are (a) cultural understanding from indigenous communities living in the rangeland; (b) controlling water in the landscape; (c) managing fire; (d) managing total grazing pressure; (e) monitoring;

(f) modelling and simulation; (g) leveraging economic engines, such as mining; (h) diversification; and (i) legislative and policy change. Chapter 18 (12 pp.) addresses sustainability social marketing with the meat consumption problem. Sustainability is well defined in academic literature and college-level course syllabi; it remains a complex and abstract concept. Both marketing and social marketing have proven successful in promoting products and behaviours; sustainability social marketing is particularly relevant to transitioning to sustainability, as its main aim is to modify the behaviour and practices of society as a whole for the benefit of current and future generations of people, other species and the ecological environment of the planet. The title of chapter 19 (15 pp.) is 'Public wisdom: the key to sustainability'. This final chapter proposes that collaborative engagement of diverse people's rational and arational capacities, such as empathy and intuition, with high-level, broad knowledge and perspectives can generate a more comprehensive form of intelligence, called co-intelligence by the author, or public wisdom, in public affairs. Among the many considerations that are offered and described are (a) seeking wisdom from understanding how things are interrelated and interact with each other to generate wholes greater than the sums of their parts, (b) seeking agreements that are truly inclusive, (c) creatively engaging diverse forms of intelligence and (d) seeking guidance from natural patterns.

The final chapter of *Methods for Sustainability Research* is subtitled 'Conclusion' and has three sections: 'Summary', 'Lessons learnt' and 'Thoughts for the future'. The book includes a nine-page index. This reviewer found the book to be very interesting on many levels and across many dimensions, not to mention across nine pages of notes in small-letter handwriting. It has so many ideas and suggestions, along with descriptions of applications and lessons, that it will retain a prominent place in this reviewer's library. It would be an excellent resource for an upper-division undergraduate or graduate seminar course in many disciplines, including sociology, business and public administration, as well as environmental science, environmental engineering or civil engineering. Selected aspects from a chapter or two would be interesting for a panel discussion forum at a monthly professional society meeting. All sustainability-minded practitioners would be enriched by reading this book.

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