

Book Review

Robert J. Lempert, Steven W. Popper and Steven C. Bankes.
Shaping the Next One Hundred Years: New Methods for Quantitative, Long-Term Policy Analysis
Santa Monica, CA: RAND, 2003.

Reviewed by Louise Bergin

The central question of this report focuses on how strategic decision-makers can choose actions today that will be consistent with shaping our long-term future. The authors posit that “intentionally or not, actions taken today will influence global economic development, the world’s trading system, environmental protection, the spread of such epidemics as AIDS, the fight against terrorism, and the handling of new biological and genetic technologies.” Indeed, these actions will help determine whether the twenty-first century offers peace and prosperity or crisis and collapse.

Using scenario-based planning which is designed to address the challenge of multiple plausible futures, the Global Scenarios Group, convened in 1995 by the Stockholm Environmental Institute (SEI is an independent, international Swedish research institute specializing in sustainable development and environment issues) to make specific recommendations about the actions required to make the transition to sustainability identified the following three general classes of scenarios: *Conventional Worlds* which envision a future of incremental change, evolving without major discontinuities and surprises, leaving human values and institutions at century’s end similar to those of today; *Barbarization* envisions a future in which escalating crises overwhelm the capacity of today’s institutions, and social, economic, and moral underpinnings collapse, plunging civilization into anarchy or tyranny; and, *Great Transition* envisages a future that develops from profound, near-term shifts in human values and institutions. Societies worldwide emphasize and achieve quality of life, material sufficiency, social solidarity, and the preservation of nature. Today, the SEI continues to be at the forefront in developing innovative frameworks, approaches and methodologies to research sustainable development issues.

This report acknowledges several weaknesses in scenario planning. Research in the psychology of decision-making indicates that humans gravitate to stories whose plot revolves around a single dramatic event rather than to those where the ending is driven by the slow accumulation of incremental change. Second, scenario-based planning provides no systematic means to compare alternative policy choices. The authors conclude that scenario techniques are “a tremendous boon to forward-looking strategic thinking but are not formally linked to the operations of decision-making. Hence, the authors have developed a framework to address these weaknesses that they have named the “XLRM Framework.

The acronym “XLRM” stands for Exogenous Uncertainties Affecting the Future (X); Near-Term Policy Levers (L); Relationships in the Scenario Generator (R) and Measures for Ranking Scenarios (M). To illustrate how the framework can be used, the challenge of global environmental sustainability is developed. Within each element of the framework, key factors are used to construct ensembles of scenarios. This example uses 43 input parameters that embrace

the XLRM framework's key uncertainties. The framework is designed to constrain parameter values to reproduce past trends as well as a range of future forecasts of economic growth, population, and environmental performance. The authors' objective is to distinguish between policy actions taken in the present and those potentially available to future generations.

The core of the report describes each step in the analysis of the framework parameters and the resulting scenarios addressing the problem of global sustainability. The authors show how this information may be applied to identify society's best near-term strategies for shaping this future to achieve positive outcomes.

The authors acknowledge that engaging the community of stakeholders is a daunting challenge. The iterative process aims to produce a series of landscapes that allow people to see the relationships among the stories they and others tell about the future and then to seek common solutions that span their differing views. When the results remain counterintuitive or unsatisfactory, people can repeat the process until they arrive at a common vision about the way to move forward. The authors hope that such visualizations will help decision-makers create the future society wants.

This report may be accessed at <http://www.rand.org/publications/MR/MR1626/MR1626.pref.pdf>

The Stockholm Environmental Institute website: <http://www.sei.se/>

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