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## The Idea of Sustainable Development in Public Administration

John R. Bartle

*University of Nebraska Omaha*, [jbartle@unomaha.edu](mailto:jbartle@unomaha.edu)

Deniz Leunenberger

*Bridgewater State College*

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# **The Idea of Sustainable Development in Public Administration**

By John R. Bartle

University of Nebraska at Omaha

6001 Dodge St.

Omaha NE 68182-0276

Voice: (402) 554-3989

Fax: (402) 554-2682

[jbartle@mail.unomaha.edu](mailto:jbartle@mail.unomaha.edu)

and

Deniz Leuenberger

Department of Political Science

Bridgewater State College

Bridgewater MA

[dleuenberger@bridgew.edu](mailto:dleuenberger@bridgew.edu)

(508) 846-6137

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**Note to Editor: Pull-quotes are identified in red font**

## **Biography**

John R. Bartle is Professor and Director of the School of Public Administration at the University of Nebraska at Omaha. He teaches and does research in the areas of public finance policy and management, public budgeting, transportation, and applied economics. He is Chair of the Association for Budgeting and Financial Management, and is on the National Council of the American Society for Public Administration.

Deniz Leuenberger is an Assistant Professor of Public Administration in the Department of Political Science at Bridgewater State College. Her primary areas of research specialization are sustainable development, public sector economics, and public goods theories.

## **Abstract**

This article introduces the Focus Issue on Sustainable Development by first discussing the environmental problems caused by unsustainable development, and then the shortcomings caused by a piecemeal approach to policy development and implementation. The idea of sustainability appears to fit well with other core values of public administration, which is a consistent theme through each of the articles in this Issue. Definitions of sustainability are discussed, followed by two relevant models. Finally, each article in the Focus Issue is introduced.

# The Idea of Sustainable Development in Public Administration

## Introduction

Sustainable development is an important new perspective on public policy and administration that has emerged largely from outside the U.S. This concept attempts to more explicitly consider the future consequences of current behavior. The symptoms of unsustainability are manifested everywhere: the greenhouse effect, climate change, ozone depletion, atmospheric acidification, toxic pollution, biological species extinction, deforestation, land degradation, desertification, depletion of non-renewable resources, urban air pollution and solid waste pollution (Rao 2000, 81).

The scarcity of environmental resources and the potential for social and economic crisis based on the depletion of once abundant natural inputs is becoming increasingly clear. The increasing level of consumption coupled with increases in population places the future of societies at risk. The problems emerging in managing resources are increasingly non-linear as signs of environmental injury are hidden until a critical threshold is reached (Rao 2000, 19). However the problem goes beyond the availability of natural resources. The impact of Hurricane Katrina in September, 2005 and the flawed response of public officials is a vivid and disturbing illustration of the problems caused by our piecemeal consideration of policy and the consequence of an inadequate system of citizen participation in decision-making (Leuenberger and Bartle, 2005).

Traditional public administration values remain important to practice and theory, but are these values sufficient? Three pillars of public administration have been identified: efficiency, effectiveness, and social equity (Svara and Brunet, 2004). **Should**

**sustainability be added as a fourth pillar of public administration?** The articles in this Issue find that the complex problems of public administration require simultaneous consideration of a variety of values. For instance, the framework of sustainability presents the opportunity to integrate principles which have traditionally been considered incompatible such as intergenerational equity, environmental preservation and economic efficiency (Rao 2000, 69). Sustainability may also afford administrators an opportunity to integrate social equity and efficiency as complementary values rather than competing values. Are the themes of sustainability and sustainable development appropriately matched to these major normative themes of public administration? What is their utility in practice? This Focus Issue explains the concept of sustainability, contrasts it with other social values, and illustrates its application to four different policy areas.

### **Defining Sustainability and Sustainable Development**

What are sustainability and sustainable development? Lamont C. Hempel introduces several definitions. These definition summarize the definitions operationalized by several theorists and serve as a starting place for defining these terms (Modified from Hempel 2001, 47).

#### **SUSTAINABILITY**

“A nondeclining utility function or nondeclining capital; nondeclining human welfare over time” (Pearce, Markandya, and Barbier 1989)

“a condition in which social systems and natural systems thrive together indefinitely” (Euston 1995)

“resilience -- ability to maintain structural integrity, form, and patterns of behavior in the midst of disturbance” (Common 1995)

“a process of creation, maintenance, and renewal that persists in balance with the process of decline, death, and decay” (Hempel 1992).

## **SUSTAINABLE DEVELOPMENT**

“the system does not cause harm to other systems, both in space and time; the system maintains living standards at a level that does not cause physical discomfort or social discontent to the human component; within the system life-support ecological components are maintained at levels of current conditions or better” (Voinov and Smith 1998)

“the complex of activities that can be expected to improve the human condition in such a manner that the improvement can be maintained” (Munro 1995)

“development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland Commission 1987).

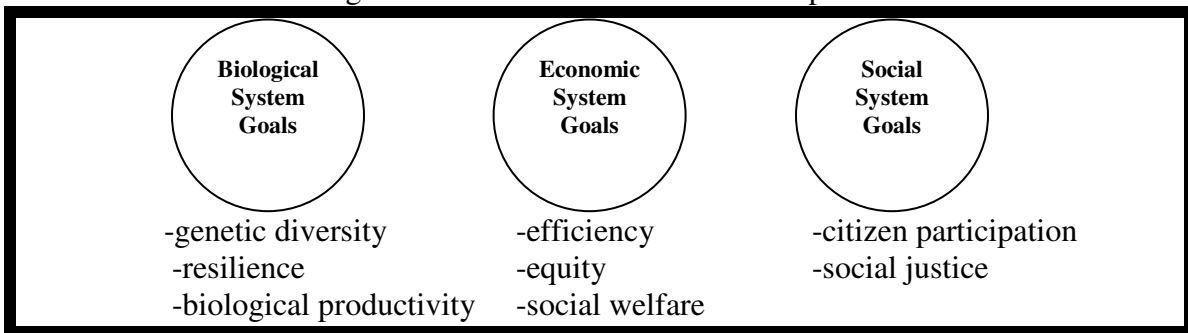
Because a number of meanings have been assigned to sustainability and to sustainable development, the definition of these concepts is the first task for public administration scholars, before application in the field can be clarified. Of the definitions listed above, we believe that the first definition in each category is the most useful for public administration theory and practice.

### **Models of Sustainability**

It is helpful here to very briefly review two basic models of sustainability to introduce the reader to concepts that are used in the following articles. The first model emphasizes the relevance of system models to the goals of sustainable development. These are goals of the biological, economic and social systems as illustrated in Figure 1 (Barbier 1987 in Rao 2000, 83). Biological system goals include genetic diversity,

resilience, and biological productivity. Economic system goals include efficiency, equity in distribution, and social welfare improvements. Social system goals include citizen participation and social justice. **The systems approach in sustainable development is a close match to the ecology of public administration, as it embraces the idea of interdependence of human life, equilibrium, organic systems, and stabilization** (Stillman 2000, 80).

Figure 1: Goals of Sustainable Development



The second model, articulated by Mazmanian and Kraft (2001, 10-13), identifies three epochs of the environmental movement in the U.S. The first of the three epochs, the environmental protection era, was concerned with the development of legal administrative and regulatory infrastructure. The second epoch that emerged in the 1980's emphasized efficiency-based regulatory reform. From 1990 to the present, the approach to environmental protection has been leaning toward sustainability. This era supports harmony between human and natural systems, a balance of long-term system needs through system design and management, an eco-centric ethic, an emphasis on resource conservation, use of comprehensive future visioning, environmental strategic planning, assessment and goal prioritization at the societal level, and encourages public/private partnerships and community capacity building. This approach simultaneously embraces generational equity, public participation, and efficiency.



### **Articles in this Focus Issue**

In applying concepts of sustainability to public administration, the match between sustainability and goals of public administration is demonstrated best when applied to specific problems. The articles in this Focus Issue provide evidence of the importance of considering sustainability in public decisions, as well as the difficulty of achieving durable policy implementation.

Leuenberger argues that the concept of sustainability helps managers to manage resources across both time and space. It also helps them to manage risk, addresses the goal of intergenerational equity and provides a framework to conserve natural resources. Her paper traces the link between the principles of sustainable development and the tenets of public administration. The application of broad-based sustainable development reflects the values of efficiency, effectiveness, and citizen participation. However the system perspective of sustainability requires a simultaneous balancing of these considerations. While more complex, such a perspective offers the potential for a lasting contribution. She asks, “Are the goals of sustainable development a match with public administration practice?,” and finds that these goals can be applied to much of the work of the public sector, such as the provision of transportation, public housing, human services, and environmental protection.

Kraft examines efforts to improve water quality in the Fox-Wolf River Basin in Northeastern Wisconsin. It places the history of these efforts within the historical context of environmental policy. The current epoch of environmental policy stresses reliance on broadly inclusive stakeholder involvement and civic environmentalism. Water quality in the area has improved significantly over time, but further improvement will require

intensive actions focused on non-point sources of pollution and remediation of contaminated sediments. Collaboration and stakeholder involvement can be successful in some circumstances but in other circumstances conventional regulation may be preferred. Policy approaches that are hybrids of these two may be most effective. The potential for alternative approaches that are grounded in the concepts of sustainability and collaborative decision making are explored. The lessons from this case are relevant for many other communities.

Bartle opens with the observation that sustainable development has had limited influence on air transportation. He examines how U.S. air transportation practice meets the four dimensions of sustainability -- environmental, economic, financial and social -- and finds current practice to be unsustainable and likely to continue to get worse. Neither current pollution control policies nor technological progress are sufficient to solve the problem. Shifting from air travel to other modes of travel is an option; however the goals of mobility and speed of travel would be inhibited. Taxes could reduce the external costs caused by air pollution; however there are administrative and political barriers to this. Institutional reform seems to be the logical solution, and some of the options that have been used in Europe and elsewhere to achieve this reform are described. Any U.S. policy to address these issues would have to be consistent with our political, economic, social, and cultural institutions.

Bartle and Devan examine sustainability issues in the area of highway travel. As with air travel, highway travel is forecasted to increase steadily worldwide in ways that are likely to be unsustainable along all dimensions: environmental, economic, financial and social. Federal legislation, in particular the Intermodal Surface Transportation

Efficiency Act, has made progress towards the goal of sustainability; and technological improvements offer potential for reduced emissions, but both potentials have not been fully realized and are not likely to fully solve the problem. The same is true of reductions in automobile usage and of efforts to internalize external costs. Ultimately, institutions will have to change. This will not be easy; however examples from the European Union show how institutional change can be implemented in a durable way. Change needs to take place both inside and outside of government, using both top-down and bottom-up approaches. This change is important not just for environmental reasons, but also for long-term prosperity.

Taken together, these articles cover a broad range of policy areas, and suggest both the successes and shortcomings towards the goal of sustainability. **Continued progress will depend on two changes: a normative orientation towards the goals of sustainability, and development of implementation routines by many public administrators.** These challenges are great, but so are the dangers of not meeting them.

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