

Public Works Management & Policy

<http://pwm.sagepub.com/>

Sustainable Development in Public Administration : A Match With Practice?

Deniz Leuenberger

Public Works Management Policy 2006 10: 195

DOI: 10.1177/1087724X06287496

The online version of this article can be found at:

<http://pwm.sagepub.com/content/10/3/195>

Published by:



<http://www.sagepublications.com>

Additional services and information for *Public Works Management & Policy* can be found at:

Email Alerts: <http://pwm.sagepub.com/cgi/alerts>

Subscriptions: <http://pwm.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations: <http://pwm.sagepub.com/content/10/3/195.refs.html>

>> [Version of Record](#) - Apr 26, 2006

[What is This?](#)

SUSTAINABLE DEVELOPMENT IN PUBLIC ADMINISTRATION A Match With Practice?

DENIZ LEUENBERGER
Bridgewater State College

Sustainability and sustainable development are concepts that are increasingly used in the field of public administration. In considering long-run planning, intergenerational equity, reduction of risk, and conservation of resources in administrative planning, sustainability may have a significant contributory role. This article traces the link between the principles of sustainable development and the tenets of public administration. In the application of broad-based sustainable development, it finds the reflection of efficiency, effectiveness, and citizen participation. By asking, Are the goals of sustainable development a match with public administration practice?, it finds that sustainable development may be applied to much of the work of the public sector, including to the provision of transportation, public housing, human services, and environmental protection. Finally, it suggests the unique contribution of sustainability to the field of public administration.

Keywords: *sustainable development; sustainability; environment; transportation; public housing*

Deniz Leuenberger, PhD, 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.

According to Anthony Giddens (2003), governments are caught up in the business of risk management (p. 34). Risks are “hazards that are actively assessed in relation to future possibilities.” Reducing risks requires a break away from the past (p. 23). The management of risk is, therefore, linked with short-term and long-term plans consistent with social values, with availability of physical resources, and with distribution of these resources. As resource pools diminish over time and as populations actively engaging in consumption increase, the need to consider plans that ensure preservation of resources—at least at their current levels—becomes vital. This is the reason sustainability and sustainable development are becoming increasingly critical concepts in the practice of public administration. Sustainability and sustainable development are vital concepts in the management of risk in fields from transportation to human services in the field of public administration. This article outlines the match between the tenets of public administration and of sustainable development. It considers the management of risk by government, the societal development of time and space knowledge and short-run and long-run management, and the possible connection of sustainable development to improvement in fields of public administration practice.

Managing Risk in Premodern and Modern Societies

Anthony Giddens states that the process of considering risk requires a society to abandon the premodern equation of space and time. If time and space are integrated and are cyclical,

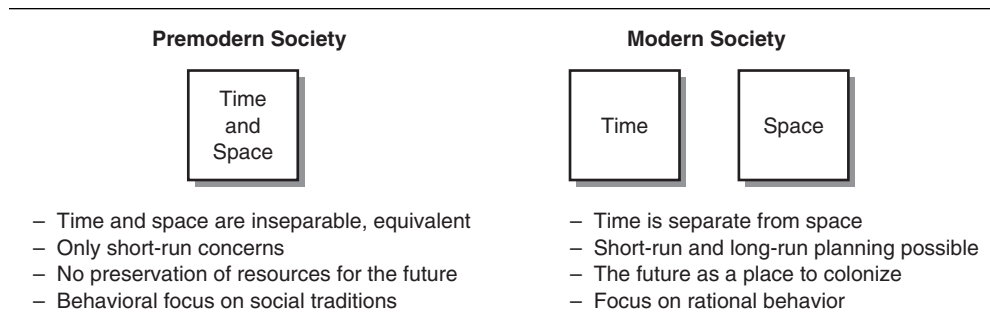


Figure 1: Comparison of Time and Space in Premodern and Modern Society

societies continue to practice behaviors based on tradition. Balance arises as growth of population is held in check by limited resources in the immediate time period, and the system is sustainable as long as resources are able to regenerate faster than they are consumed. Societal values in premodern society are based on short-term survival, but resources are preserved in the long-term because consumption is limited by the large amount of resources required to produce goods. Individuals are directly involved in the labor of production and face the trade-off of their labor for goods produced for their consumption in a very real way. The consumption and production cycle is linked to their vision of unified time and space. Premodern societies survive not because of long-term planning but because there are limits on their ability to consume and produce.

Because of technological advancements in production of goods and reduced reliance on labor, consumption is increased in postindustrial societies. The management of resources becomes increasingly important. It is fortunate that, according to Giddens, modern societies are able to create a vision for the future (see Figure 1). They have the foresight to resolve normative values that come into conflict with environmental health and long-term societal success, if they choose to. The separation of space and time allows societies and their governments to plan for the future and to avoid critical mistakes that may result in their destruction. This means that traditional local habits and customs may be combined with globalized and with rationalized systems of action (Giddens, 1990, pp. 18-20). Respect for space or place allows for public administrators to create plans matching the unique characteristics of the immediate physical and social environment and increasing preservation of resources. Recognition of the time dimension leads to translating short-run, place-specific plan into long-run action.

In Jared Diamond's (2004) popular book entitled *Collapse: How Societies Choose to Fail or Succeed*, ancient cultures struggle as their traditions and beliefs conflict with their ability to survive long-term. Societies dissolve when their behaviors have negative consequences on the environment and on the society's resource base. Diamond suggests that there may also be a risk of collapse for modern societies unwilling to consider the future effects of current normative behaviors. Why may societies with an understanding of long-run possibilities fail? First, as exemplified by the industrial revolution, the future may be seen as a territory to be colonized instead of as a space to be preserved (Giddens, 2003, p. 23). This type of failure occurs as yet-undiscovered technologies are relied on to resolve problems emerging from current behavior. The cost of behaviors to future generations is not included in the decision-making process. Second, failure may result from an unwillingness to modify sociocultural norms and behaviors that place the society at risk. The unwillingness to adjust behavior even with the knowledge of future negative consequences is ignoring the separation of space and time and ultimately leads to demise. Recognizing the risk of environmental consequences of driving single-passenger vehicles on oil resources and on air quality, but not transferring to public transportation systems, is one example of this potential for failure.

The inability of the members of society to privately and individually address the types of societal failures mentioned above may dictate government intervention. For instance, governments intervene in the marketplace to address externalities, the lack of competition, the

Respect for space or place allows for public administrators to create plans matching the unique characteristics of the immediate physical and social environment and increasing preservation of resources.

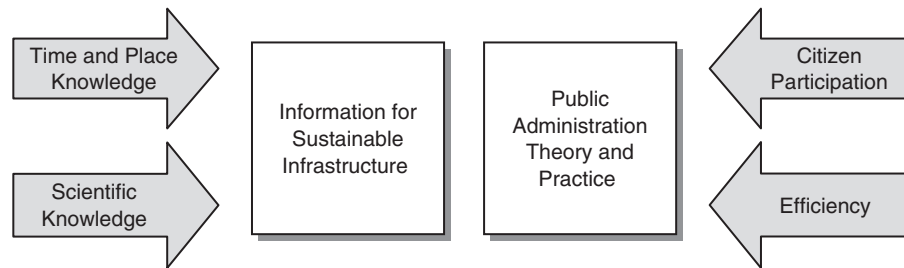


Figure 2: Parallels in the Tenets of Sustainable Infrastructure and Public Administration Theory and Practice

inequity in distribution of income, and the imperfection of information dispersion (Anderson, 2003, pp. 15-16). They reduce the risk of inequity and market failure for citizens. In this marketplace, individuals are unable to manage the resources in the long-term and governments provide regulation, taxation, and subsidies to modify citizen behavior. The role of government is to manage risk and resolve issues of resource scarcity over time while placing a limited amount of strain on private market interactions.

Of the types of market failure listed above, one critical market failure is specifically related to time and place: information asymmetry (Ostrom, Schroeder, & Wynne, 1993, pp. 49-55). Information asymmetry is the issue that ties time and place to the newly emerging tenets of sustainability and sustainable development. This is because of the dependence of infrastructural development on two types of information, time and place knowledge and scientific knowledge (Ostrom et al., 1993, pp. 49-50; von Hayek, 1945, pp. 521-522, 524). Both types of information are mandated in “any effort to develop infrastructure that can be sustained over a long period” (Ostrom et al., 1993, p. 50). Public administrators’ respect for citizen participation and efficiency is based on the need to incorporate time and place knowledge and scientific knowledge into decision making with short-run and long-run outcome objectives (see Figure 2).

Resource scarcity and the risks associated with it are leading governments to focus on systems of behavior that sustain the level of resources over space and time. Public administrators are placed in the role of managing the short-run and the long-run. Sustainability may be the tenet that assists public administrators in reducing the risk of crisis-level resource depletion and consumption-related environmental damage.

Sustainability and Sustainable Development

Pearce, Markandya, and Barbier (cited in Hempel, 2001) define sustainability as “a non-declining utility function or nondeclining capital; nondeclining human welfare over time” (p. 47). This definition is most consistent with the time dimension and efficiency dimension required according to the infrastructural development criteria set forth by Ostrom, Schroeder, and Wynne (1993). It is also the definition most consistent with the public administration tenets of citizen participation and efficiency. It requires information about individual citizen utility functions but also integrates nondeclining social welfare. This means that consumer- and producer-focused market efficiency is important. Furthermore, this definition suggests that resources, or capital, must also be consistently preserved over a period of time. Time, resource preservation, citizen input and satisfaction, and efficiency are key components of sustainability and of public administration. Another related definition describes sustainability as

a relationship between dynamic economic systems and larger dynamic, but normally slower-changing ecological systems in which human life can continue indefinitely; human individuals can flourish; and human cultures can develop, but in which effects of human activities remain within bounds, so as not to destroy the diversity, complexity, and the function of the ecological life support system. (Costanza et al., 1991, cited in Rao, 2000, p. 83)

Sustainability may be the tenet that assists public administrators in reducing the risk of crisis-level resource depletion and consumption-related environmental damage.

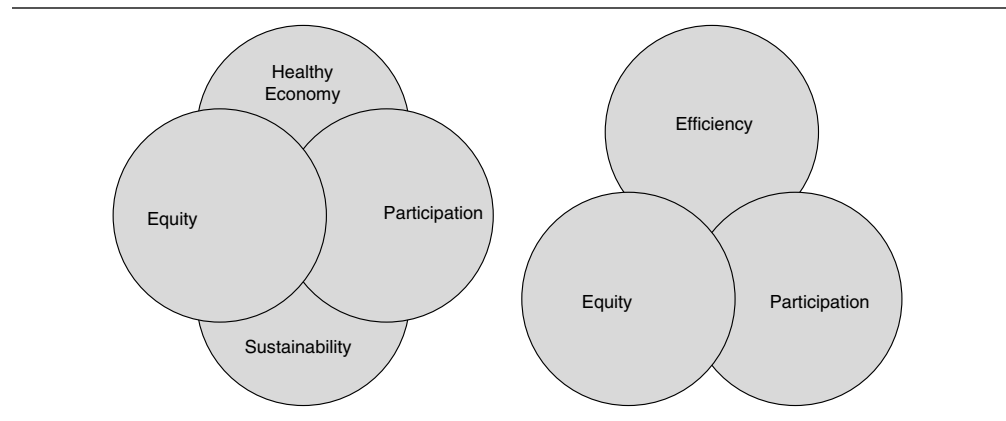


Figure 3: Comparing Broad-Based Sustainability to Public Administration Principles

Vionov and Smith (cited in Hempel, 2001) define sustainable development as an environment wherein

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. (p. 47)

It also carries with it the concepts of space and time. System-based models, which maximize biological system goals, economic system goals, and social system goals simultaneously, are used in sustainable development (Barbier, 1987, cited in Rao, 2000, p. 83). Genetic diversity, resilience, biological productivity, efficiency, equity in distribution, social welfare improvement, citizen participation, and social justice are components of sustainable development practice. The systems approach in sustainable development is a close match to the ecology of public administration, the idea of interdependence of human life, equilibrium, organic systems, and stabilization (Stillman, 2000, p. 80).

Broad-Based Sustainable Development

Another helpful concept building on sustainable development is that of broad-based sustainable development. It shares foundations directly tied to public administration principles. Broad-based sustainable development requires a healthy, growing economy undergoing structural transformation and leading to a higher standard of living, an economy in which the benefits are equitably shared and distributed, a protection of human rights, civil society, and democratic participation, and that of sustainability, wherein the environment is not destroyed and descendants of current peoples enjoy the same or a higher standard of living (Weaver, Rock, & Kusterer, 1997, pp. 2, 3, 13-36). Of these, only the fourth, that of sustainability, is not currently considered a principle of public administration (see Figure 3). Broad-based sustainability allows the citizen to participate in the management of risk. This allows governments to improve performance by including the time and space knowledge available to citizen-consumers in government decision making.

COMPARING THE HISTORY OF PUBLIC ADMINISTRATION AND THE EPOCHS OF THE ENVIRONMENTAL MOVEMENT

According to Mazmanian and Kraft (2001), there have been three epochs of the environmental movement: the regulation for environmental protection period, the efficiency-based regulatory period, and the sustainable development period (pp. 10-13). The regulation for environmental protection era, from 1970 to 1990, is concerned with the development of legal

administrative and regulatory infrastructure (pp. 10-13). By ensuring compliance with federal and state regulations, businesses are to be prevented from introducing negative externalities into the environment and the economy. The rule of law and zero-sum politics assures that citizens use their political voice in predetermined, formal opportunities to interact with government. The environment is protected through a human-centric vision of rules that are primarily based on property rights of citizens. Citizens are compensated and protected by government when their property rights to the use of the environment are violated. The only voice of the environment is that of the citizen. Citizen participation, although formal in its interaction with public agencies, is a central concept of public administration.

The 1980s to 1990s saw the emergence of an epoch termed "efficiency-based regulatory reform" (Mazmanian & Kraft, 2001, pp. 10-13). The goals of this era included internalization of externalities, testing for cost-effectiveness, reliance on the marketplace, and greater stakeholder and public participation. The market model in this era suggested that citizen participation, in the marketplace as well as in political decision-making processes, led to optimization of social welfare. Regulation focused on efficiency and maximizing resources. The citizen became citizen-consumer and citizen-voter. The environmental goal of the era was to regulate systems in a manner such that producers and consumers bore the costs of their market interaction, including externalities.

From 1990 to the present, the approach to environmental protection has been leaning toward sustainable communities (Mazmanian & Kraft, 2001, pp. 10-13). This era supports harmony to human and natural systems on a sustainable basis, balances long-term system needs through system design and management, embraces an ecocentric ethic, rediscovers/emphasizes resource conservation, uses comprehensive future visioning, relies on environmental strategic planning, assessment, and goal prioritization at the societal level, and encourages public/private partnerships and community capacity building. In fact, this era embraces generational equity, public participation, and efficiency simultaneously.

APPLICATION TO THE FIELD

To draw out the possibility of sustainable development as a meaningful tenet of public administration, it is important to consider specific issues in public administration fields. Figure 4 suggests that sustainable development may be compatible with public administration practice in issue areas such as transportation and environmental protection, as well as in human services and public housing. Because economic, biological, and social aspects of practices are complicated by limited resource availability in the short-run and in the long-run, considering programming that improves or at least does not diminish future social welfare is critical. The intragenerational focus of sustainability is of special importance to public administration practice and may be incorporated into public administration practice and theory. Furthermore, risk may be reduced as time and space knowledge of citizens is incorporated into government decision making and information asymmetry is reduced.

In public administration practice, sustainable development is being discussed within the fields of transportation and environmental protection, where risk to current and to future consumers may be reduced by creating more efficient, equitable, and resilient systems. It is possible that resources may also be maximized in human services delivery and in public housing by incorporating the same tenets. For instance, human services agencies working with families at risk for child abuse and neglect have adopted programs simultaneously focused on efficiency and citizen participation. Family group conferencing, wherein government agencies partner with neutral facilitators and families to create individualized, specialized plans, may assist families in improving their circumstances and preserving resources. Families have a voice in their plan and therefore are not forced to participate in programs in which they would be only passive participants or that they would avoid. Because they choose their own plan, waste is reduced and generational learning about how to choose effective services is improved.

In the case of public housing, citizens may be more active in the creation of plans for independence linked to their housing situation. By focusing on short-term solutions and long-term

APPLICATION OF SUSTAINABILITY GOALS	MATCH WITH GOALS				
	Problem Issues	Generational and Time Issues	Biological Genetic Diversity Resilience Biological Productivity	Economic Efficiency Equity Social Welfare	Social Citizen Participation Social Justice
HUMAN SERVICES	Maximizing Benefits of Redistributed Resources Matching Individual Needs of Customers	High Incidence of Generational Repetition of Social and Economic Dysfunction	Resilience (Interruption of Generational Dysfunction)	Efficiency Equity Social Welfare (Balancing Redistribution of Resources With Equity)	Citizen Participation Social Justice (Equity of Resource Distribution)
PUBLIC HOUSING	Reducing Dependence of Individuals on Redistributed Resources	High Incidence of Generational Repetition of Social and Economic Dysfunction	Resilience (Interruption of Generational Dysfunction)	Efficiency Equity Social Welfare (Balancing Redistribution of Resources With Equity)	Citizen Participation Social Justice (Equity of Resource Distribution)
TRANSPORTATION	Allowing Individuals to Use Resources Without Depletion Freedom Movement Versus Preservation of Resources and Environment	Lack of Inclusion of Future Generation Interests	Genetic Diversity Resilience Biological Productivity (Resulting From Reduction in Resource Use)	Efficiency Equity Social Welfare (Due to Reduction in Externalities)	Citizen Participation Social Justice (Generational Equity)
ENVIRONMENTAL PROTECTION	Protection of Humans, Animals, Fauna	Lack of Inclusion of Future Generation Interests	Genetic Diversity Resilience Biological Productivity (Resulting From Reduction in Resource Use)	Efficiency (Due to Reduction in Externalities)	Citizen Participation Social Justice (Generational Equity)

Figure 4: Application of Sustainability Goals

plans, these individuals would be able to improve intergenerational dependence on government-managed resources. In essence, focusing on sustainable development concepts in public administration may lead to reduction of intergenerational risk. Resources used to maintain generations of individuals in status quo living situations could be diverted or preserved, while improving citizen satisfaction with services matched to individual needs and choices. Furthermore, because sustainable development focused on systems, the entire system of services linked to public housing consumption, such as education, job training, health services, food distribution, community safety, and transportation, may be considered as a bundle of goods and managed in a more effective manner. An approach that considers long-term and short-term consequences to the system of goods delivery may reduce waste and improve services to citizens.

Sustainable development works for public administration practice because it offers an opportunity to consider systems that respect tenets already considered valuable in its normative orientation, simultaneously. In public administration, including sustainability as a tenet increases the awareness of short-run and long-run goals concurrently. Time and space matter and generational foresight is important to planning. Furthermore, by using sustainability as a dimension of public administration value, it is possible to link certain specializations and their value systems to further improve sustainability. It is possible to engineer systems that increase positive externalities to other specializations based on shared values. For instance, considering future generations in transportation development may also conserve resources that assist environmental protection programs. Considering citizen participation, efficiency, equity, and sustainability is a natural fit for public administration and could reduce risk for citizens in the long-run by managing resources in a more effective and meaningful manner in the short-run.

Sustainable development works for public administration practice because it offers an opportunity to consider systems that respect tenets already considered valuable in its normative orientation, simultaneously.

Conclusion

In 1887, Woodrow Wilson wrote “The Study of Administration,” where he discussed the principle of popular sovereignty and the benefits, costs, and responsibilities associated with it in the practice of public administration (Wilson, 1887/1992, pp. 16-17). Herbert A. Simon wrote an essay in 1946 entitled “The Proverbs of Administration,” which highlighted principles of efficiency in administration (Simon, 1946/1992, pp. 150-151). Regardless of the type of good or service provided, the issues of public interest, equity, citizen participation, and efficiency are some of the key tenets of public administration theory and practice (Stillman, 1996, p. 380; Stillman, 2000, p. 498). In light of the responsibilities and norms of public administration in practice, exclusion of any of these principles is unacceptable. Practitioners address the value of a good to citizens, equity in its allocation, and efficiency in its production and distribution.

Although exclusion of principles is not accepted, a characteristic of public administration theory is that these tenets are often seen as polarized and as opposites. Dichotomies between efficiency and effectiveness and between efficiency and responsiveness abound in public administration and have become metanarratives around which a great deal of theoretical discussion takes place (Denhardt, 1995, pp. 22-24). With citizens as sovereign in the United States’s version of public administration, the authority of the people to participate equitably in democratic decision-making processes is vital (Denhardt, 1995, pp. 22-24; Stillman, 1996, p. 380). Most practitioners, in considering the public interest, must decide the optimal level of participation of citizens, while balancing the cost and benefits associated with inclusion of citizens in public agency decision making.

Public administration is comfortable with the adoption of proverbs or principles, which are then used to educate practitioners and theorists as part of the normative orientation of public administration. It is clear that there is a match between the tenets of public administration and the core concepts of sustainability. The difference that sustainability offers to public administration is not in the creation of new concepts, but in considering concepts already important to public administration simultaneously. Sustainability offers academics and practitioners a new vision of public administration, where key principles are not opposites competing in dichotomous relationships, but are values that must be accepted as complements.

References

- Anderson, J. E. (2003). *Public finance: Principles and policy*. Boston: Houghton Mifflin.
- Denhardt, R. B. (1995). *Public administration: An action orientation* (2nd ed.). Belmont, CA: Wadsworth.
- Diamond, J. (2004). *Collapse: How societies choose to fail or succeed*. London: Viking Adult.
- Giddens, A. (1990). *The consequences of modernity*. Stanford, CA: Stanford University Press.
- Giddens, A. (2003). *Runaway world*. New York: Routledge.
- Hempel, L. (2001). Conceptual and analytical challenges in building sustainable communities. In D. A. Mazmanian & M. E. Kraft (Eds.), *Toward sustainable communities: Transition and transformations in environmental policy* (pp. 43-74). Cambridge, MA: MIT Press.
- Mazmanian, D. A., & Kraft, M. E. (2001). *Toward sustainable communities: Transition and transformations in environmental policy*. Cambridge, MA: MIT Press.
- Ostrom, E., Schroeder, L., & Wynne, S. (1993). *Institutional incentives and sustainable development: Infrastructure policies in perspective*. Boulder, CO: Westview Press.
- Rao, P. K. (2000). *Sustainable development: Economics and policy*. Oxford, UK: Blackwell.
- Simon, H. A. (1992). The proverbs of administration. In M. Shafritz & A. C. Hyde (Eds.), *The classics of public administration* (3rd ed., pp. 150-166). Fort Worth, TX: Harcourt Brace College Publishers. (Original work published 1946)
- Stillman, R., II. (1996). *The American bureaucracy: The core of modern government* (2nd ed.). Chicago: Nelson-Hall.
- Stillman, R., II. (2000). *Public administration: Concepts and cases* (7th ed.). Boston: Houghton Mifflin.
- von Hayek, F. A. (1945). The use of knowledge in society. *American Economic Review*, 35(4), 519-530.
- Weaver, J. H., Rock, M. T., & Kusterer, K. (1997). *Achieving broad-based sustainable development: Governance, environment, and growth with equity*. West Hartford, CT: Kumarian Press.
- Wilson, W. (1992). The study of administration. In J. Shafritz & A. C. Hyde (Eds.), *The classics of public administration* (3rd ed., pp. 11-24). Fort Worth, TX: Harcourt Brace College Publishers. (Original work published 1887)