

SUSTAINABLE DEVELOPMENT IN PUBLIC ADMINISTRATION PLANNING: AN EXPLORATION OF SOCIAL JUSTICE, EQUITY, AND CITIZEN INCLUSION

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ABSTRACT

Sustainability development is receiving increased attention in public administration theory and practice. It has been lauded as promoting increased environmental well-being, while also improving the well-being of citizens. Can sustainable development principles promote social justice, equality, and citizen participation in public administration practice? Will these principles be at odds with economic stability? What are the overall consequences for civil society? This paper considers these questions by exploring case studies in which the application and practice of environmental sustainability is integrated in public decision making. It discusses the role of sustainable development in public risk management and in promoting social justice through the use of systems approaches, time and place knowledge, and stakeholder participation.

INTRODUCTION

Sustainability is a philosophy associated with the long-run maintenance or improvement of human welfare and the preservation of natural capital and environmental integrity. Sustainable development is action directed by the philosophy of sustainability and is increasingly supported, promoted, and required by public, non-profit, and private agencies from the local to the global levels. For public administrators and non-profit managers facing the challenge of managing service and goods provision with increasingly limited resources, sustainability and sustainable development offer promising solutions for decision making. Sustainable development planning is being considered in the construc-

tion of higher education and K-12 school buildings, in public housing management, in health and human services delivery, in community planning, in transportation design, and in energy, water, and waste systems management.

Sustainability has also been described as a tool for building participation and equity in public settings with increasing resource limitations (Weaver, Rock, & Kusterer, 1997, pp. 1-2; Williams & Matheney, 1995, p. 7). Will sustainable development principles promote social justice, equality and citizen participation in public administration practice? Are these principles at odds with economic profitability? Can they act as a forum for incorporating the expertise and time and place knowledge of administrators and of citizens? What are the overall consequences for civil society? This paper considers these questions by exploring case studies in sustainable development in which the application and practice of these concepts is integrated in public decision making. It discusses the role of sustainable development in public risk management and in promoting social justice through the use of systems approaches, time and place knowledge, and stakeholder participation. Using cases of forest management in Malawi, Kenya, Paraguay, and Brazil, and organic composting in Bangladesh, this article considers how citizen participation and social justice may be considered as a component of sustainable development planning theory and practice.

SUSTAINABLE DEVELOPMENT, MARKETS, AND RISK MANAGEMENT IN PUBLIC ADMINISTRATION PRACTICE

As there are a number of definitions for sustainability and sustainable development, it is important to clarify their meaning in the context of public administration practice. Sustainable development requires maintaining a balance between the needs of current and future generations, while also promoting environmental welfare and the preservation of natural capital. The environment is preserved, while descendants of current peoples enjoy the same or a higher standard of living (Weaver, Rock, & Kusterer, 1997, pp. 2, 3, 13-36). Sustainable development promotes intergenerational and intra-generational equity, by requiring that economic/market based decisions are only one of many considerations in agency decision making. Market-based analysis or the tenet of efficiency is used to achieve effectiveness, equality, and participation. Ideally, sustainable planning is concurrently rooted in social, biological, and economic system goals (Barbier, 1987, in Rao, 2000, p. 83; Bartle & Leuenberger, 2006, pp. 192-193).

Within models of sustainability, three types of system goals are addressed: social, economic, and biological. Social system goals, such as citizen participation and social justice, guide the inclusion of citizens in decision making regarding resource provision and management. The economic system goals of efficiency, equity in distribution, and social welfare improvements assure fairness in allocation of resources and reduction of waste in the provision and distribution of goods and services. In addition, biological system goals, including genetic diversity, resilience, and biological productivity, create balance between natural capital and human resource use (Weaver, Rock, & Kusterer, 1997, pp. 2, 3, 13-36). These goals form the ground work for the sustainable development theoretical framework. Sustainable development, therefore, is planning with the use of a philosophical stance, an ideal typology, in which practice is considered and reconsidered in the context of the tenets of sustainability. This is what makes sustainable development attractive as a decision making and planning tool, although in application, achieving perfect sustainability is complicated by bounded knowledge, lack of technological advancement, human behavior, beliefs, and habituation, constant changes in the natural environment, limited resources, and difficulty in defining long-run and short-run time horizons.

Turning sustainable development principles into practice is inhibited by the current and unequal distribution of resources exacerbated under late capitalism. The potential clash between ecology and equity on the one hand, and economy on the other, can inhibit across-the-board implementation of sustainability in public administration. As Brulle indicates, environmental problems are fundamentally based on how “human society is organized” and “social change is required for their resolution” (2000, p. 5). The use of sustainable development by government is an attempt to manage human behavior through incentives and regulations, while respecting that environmental systems are unable to provide unlimited capital to support economic growth.

Yet it is dangerous to assume that “a win-win situation for people and planet can be achieved without sacrificing profits or requiring state intervention and regulation” (Johnston, 2006, p. 46). This is a danger because, as Frank Fischer states, “especially in environmental issues,” governments have not sufficiently reduced risk to citizens and their communities (2000, p. 51). He suggests that man-made risk now prevails and dominates all human-made systems, including the management of the environment (Brulle, 2000, pp. 48-49). Although sustainable planning tenets are difficult to integrate in practice and have yet to be universally applied in agency planning, they do provide an alternative to

market-based models which have an increasingly negative impact on the environment and on those with lower economic resources. The shift away from planning that devalues natural capital and increases risk and inequality is another reason for the increasing popularity of sustainable development today. One of the primary roles of public agencies is to reduce risk to citizens (Giddens, 2003, p. 34). Not only does government protect citizens from the risks of economic or market-based failures, but also provides the regulatory and legal stability under which social risk can be reduced and civil society and public agencies can foster the well-being of citizens. As depletion of natural resources used to support well-being is one of the most significant risks humans face today, public agencies must take action to reduce negative impact for the citizens they serve. The risks posed by resource scarcity must be considered from the perspective of systems relationships to produce fair outcomes to the largest number of stakeholders.

SYSTEMS APPROACHES AND PUBLIC AGENCY PLANNING

Approaching the complex problems presented by diminishing resources requires a multi-system approach to decision making. This protects citizens who may be engaged with government through a variety of services, regulations, and participation mechanisms. Those with less opportunity to voice needs and desires to governments may receive increased protection when consequences of decision making in one system are weighed against gains and losses in others. As sustainable development is strongly rooted in systems theories, wherein problems are addressed from the point of view of a number of public and private jurisdictions, it may serve as a venue for multi-system analysis and decision making. Sustainable development considers biological, economic, and social system goals and seeks to reduce unintentional and ambiguous effects from overlapping goals and actions emerging from multiple agencies or actors (Barbier, 1987, in Rao, 2000, p. 83). Systems approaches can be used to address “pressing problems such as air and water pollution, traffic congestion, urban blight, juvenile delinquency and organized crime” (Bertalanffy, 1968, pp. 4). Because public administration practice is immersed in problems with overlapping agency and system domains, coordination of efforts maximizes the benefit as the work of one agency is not negated by another’s, and waste from duplication of services and goods production is reduced or eliminated. Further, there are opportunities for exponentially reduced costs when several systems take action together under a shared mission.

In practical terms, sustainable development planning asks the right questions about whether impacts on other systems have been considered and whether collaboration between systems can lead to increased effectiveness and efficiency. For instance, the gains from considering water use, energy use, and waste management in light of human behavior in public construction projects may lead to improved environmental impacts. Assuring that public transportation systems are in line with community planning and growth projects requires that the system is actively used by citizens. HUD's sustainability philosophy, which insures that public housing residents have access to public transportation, sustainable construction, cheap and renewable energy for lighting and heating, energy efficient appliances, health care facilities, and public education, is another example of where sustainable development may facilitate multiple system collaboration to have maximum impact on human and environmental welfare. This philosophy is currently beginning to emerge through HUD's Energy Star and public housing development programs. Similar planning among systems stakeholders may decrease waste, improve outcomes for citizens, and reduce stress on the environment.

TIME AND PLACE KNOWLEDGE AND CITIZEN PARTICIPATION

Another concept that may endear sustainability to public administration is its link to citizen participation and to the use of time and place knowledge. Time and place knowledge is held by citizens who hold information based on their experiences within communities. For example, the EPA, after gathering extensive scientific evidence on well-water treatment in the Midwest of the USA, initiated a citizen engagement program titled Small Communities Outreach Project for Environmental Issues in 2001-2002. The premise of the program was to include the knowledge of individual well owners and water testing professionals in the decision making regarding the introduction of additional chemical treatments to drinking water. By including citizen knowledge, the nature of local soils, user values, and water quality was able to be understood in greater depth. Environmental impacts of treatment could be weighed against the changes to the unique characteristics of the region.

Local knowledge is important to sustainable development planning because it is infused with experiential time and space information held by exclusively by citizens "on the ground." Short-run and long-run planning requires the integration of this information into the technical, scientific knowledge base for decision making. (Leuenberger, 2006, pp.

196-197). Sustainable development planning works towards changing the relationship between society and nature, from separate, oppositional and commodity-based to one managed through partnerships between citizens and experts in public and non-profit agencies (Fischer, 2000, p. 51). Balance emerges out of the tension between knowledge held by professionals versus that held by citizen participants in decision making (Simonsen & Robbins, 2000, p. 3). Neither citizens nor administrators may consider themselves to be the sole proprietors of the public interest, resulting in collaborative plans that must respect input from both perspectives (Simonsen & Robbins, 2000, p. 5).

Time and place knowledge has been a critical part of human decision making history. In pre-modern societies, the long-run interests of current and future generations were often based on a cyclical understanding of time and space and a relationship with the natural world that was not based on capitalist ownership or commoditization (Giddens, 1990, pp. 18-20; Leuenberger, 2006, p. 196). Rather than having food flown in from distant locations and using industrial farming practices, seasons, tides, and lunar cycles informed decisions about when to plant, rotation of spaces for planting, and when to relocate while land-in-use had a chance to recuperate. Society's relationship with nature has undergone several significant changes that illustrate the gradual shift in the burden of maintaining the food system from natural to industrial processes. Using land for industrial agriculture requires relying on genetically and chemically engineered seeds and soil, and external energy. "Aspects of 'nature' have been refashioned and converted into industrial processes" (Redclift & Woodgate, 1994, p. 59). The economies of pre-modern societies were, by contrast, labor intensive, less technologically driven, and relied on knowledge of the limits on consumption and production (Diamond, 2004, pp. 11-17; Leuenberger, 2006, p. 196). If and when the economies of these societies were less centered on an accumulation model, then they were likely to be more sustainable.

Technological advancements in modern society have led to increased population and increased production, to industrialism and eventually globalization. Modern societies depend heavily on natural capital as a source of wealth, yet struggle to integrate time and place knowledge with scientific knowledge (Fischer, 2000, p. 9; Ostrom, Schroeder, & Wynne, 1993, pp. 49-50; von Hayek, 1945, pp. 521-522, 524). Both are required for "any effort to develop infrastructure that can be sustained over a long period" (Ostrom, Schroeder, & Wynne, 1993, p. 50). Sustainable planning guides decisions which may reverse dependence on non-renewable, diminishing natural resources. As knowledge and

power are related, sound and equitable planning depends on integrating local habits, traditions, and customs with rationalized systems of action, while not relying exclusively on one or the other (Giddens, 1990, pp. 18-20). When creating sustainability plans, public administrators must include these components to create efficient and effective programs.

SUSTAINABILITY, CIVIL SOCIETY, AND PARTICIPATION: THE THEORETICAL FRAMEWORK

Understanding sustainable development as a decision making tool also requires discussion of civil society and opportunities for stakeholder participation. Civil society is a systematic relationship of community, voluntary organizations, government, and business, wherein rights and responsibilities are placed in balance (O'Connell, 1999, pp. 11, 12). Change generally emerges from a growing discontent with the existing system among community stakeholders (O'Connell, 1999, p. 106). The "role of people at the local level is crucial" as local communities filter and ignore governmental rules and also create and enforce their own (Gibson, McKean, & Ostrom, 2000, p. 3). Strengthening civil society requires recognition of the existence of a problem, renegotiation of the social contract between stakeholders, development of a sense of individual responsibility, investment in social capital, recognition that problems cannot be solved by any single system alone, and shared governance powers (O'Connell, 1999, p. 118). Civil society is built on the engagement of citizens and interest groups in solving problems such as environmental degradation and citizen inequality. By including stakeholders in the policymaking process, the responsibilities for societal risks not fully addressed by governments are resolved by citizens and voluntary organizations. Problem solving can be directly tied to human incentives and can result in more effective solutions (Ostrom, 1990, p. 17). Individuals, acting on their own motivation may protect shared resources by monitoring one another and by reporting infractions (Ostrom, 1990, p.17).

According to Emmette Redford, government action without citizen participation "lacks democratic morality" (Simonsen & Robbins, 2000, p. 2). Environmental policymaking is not a process that is managerialist, pluralist, or communitarian, but that is "an on-going, continuously changing public dialogue among citizens, organized interests and policy makers" (Williams & Matheney, 1995, p. 7). It should replace a focus on economic growth with a focus on exchange that is equitable, participatory, and environmentally sustainable (Weaver, Rock, & Kusterer, 1997, pp. 1-2). Sustainable development planning, therefore, should en-

courage citizen participation in decision making. Effective sustainability plans rely on stakeholder participation and on understanding community and individual motivations. A specific type of sustainable development, broad-based sustainable development, expressly advocates equality and citizen participation as a tenet of sound environmental policy making. It requires a healthy, growing economy in structural transformation, leading to a higher standard of human welfare, an economy in which benefits are equitably shared and distributed, a protection of human rights, civil society, and democratic participation 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).

SUSTAINABILITY, CIVIL SOCIETY, AND PARTICIPATION: PRAXIS IN THREE EXAMPLES

For over fifty years, there have been mixed results of people-centered sustainable development in the world's poorest countries (Helmore & Singh, 2001, pp. 1-2). The competition between goals based on human welfare needs and environmental preservation create tensions which add to political, social, and economical stressors in developing communities, making the success of sustainable development difficult. However, several examples support the possibility of successful sustainability planning with the support of participatory practices. Three examples include sustainability planning in the Mchingi District of Malawi, the Green Belt movement in Kenya, and community development by the Guarani, an indigenous people of Paraguay and Brazil (Helmore & Singh, 2001; Maathai, 2003; Reed, 1997).

In the Mchingi District of Malawi, the livelihoods of citizens and preservation of the surrounding forest have increasingly come into conflict in the late 1990s (Helmore & Singh, 2001, p. 3). Development using "sustainable livelihoods" concepts was employed in the community, which includes consideration of actual livelihood systems of the citizen and the adaptive strategies they use (p. 3). The degradation of the environment was reduced, while citizen well-being was improved, using citizen participation in decision making and including citizen expert knowledge about the community (p. 23). By integrating participation and time and place knowledge, a multi-dimensional plan with consideration of efficiency, social equity, ecological integrity, and resilience was implemented (pp. 5-6). Outcomes of sustainable planning included controlling of forest free cutting, improved citizen nutrition through introduction of crops suited to the environment, increased agri-

cultural production through the use of compost manure instead of chemical fertilizer, the production of safe drinking water, and introduction of family planning (p. 23). The plan's success was attributed to participation, empowerment, and training of villagers and program facilitators, instead of focusing on infrastructure (p. 11).

Led by Wangari Maathai, the Green Belt Movement in Kenya is another example of using citizen participation and civil society to promote human and environmental welfare through sustainable development. A grassroots movement, led largely by women, increased food security, initiated reforestation, and increased employment (Maathai, 2003, pp. 6, 33). With a focus on tree planting and improved agricultural practices, the nation experienced improvements to human and environmental well-being. Core components of planning were civic education and empowerment of individuals and of the community as a whole (pp. 32-33). Also leading to the success of sustainable planning was the emphasis on environmental conservation, volunteerism, accountability, transparency, honesty, and encouragement of a "sense of belonging" (pp. 32, 64-72). The Green Belt Movement is an example of an indigenous movement, which eventually became formalized into the work of NGOs such as the National Council of Women of Kenya and of the Kenyan government itself. It is also an example of how civil society, participation, and sustainable development go hand in hand.

Another example of use of citizen knowledge and participation to make gains in sustainability is that of the Guarami in Paraguay and Brazil. This indigenous group initially saw increased risks to social, economic, and political welfare through the assistance efforts of the World Bank, which exacerbated existing problems instead of solving them (Reed, 1997, p. 81). In 114 Guarami communities, all dependent on agro-forest use and production, implementation of planning outcomes that went beyond improvements to per capita income and profit were needed (pp. 13, 17). Sustainable development with the integration of factors such as health and nutrition, education, access to resources, and human rights were implemented (Pearce, Barbier, & Markandya, 1990, p. 2; Reed, 1997, p. 18). By using the knowledge of the indigenous populations about the environment and non-commercial subsistence systems, the group has continued to survive for over four centuries within national society and the international economy.

Societies, especially poor and developing ones, may benefit from the integration of citizen participation and civil society stakeholders into sustainable development planning. By including citizen knowledge and community-based organizations into the decision making process, deci-

sions about environmental preservation and human welfare may be improved and matched to specific, local characteristics. How, then, can sustainability be linked to social justice and issues of social equity? The next portion of the paper explores this question through a review of theory and of a more in-depth case study.

LINKING SUSTAINABILITY AND SOCIAL JUSTICE

Implementing sustainable development principles can be justified using economic, ecological, environmental, moral, and political arguments. Yet linking sustainability with social justice is not necessarily a straightforward endeavor, as social equity means redistributing resources and burdens that are unevenly shared. Considering the ramifications of how social justice is defined means coming to terms with the legacy of the unequal distribution of wealth, highlighted by Dependency Theory and World Systems Theory. These related theories emphasize the power of global capitalism in shaping relationships between people and labor and between nation states. They argue that rich, industrialized, “first world,” “core,” or “developed” nations extract natural and human resources, usually in the form of goods and services, from “third world,” “peripheral,” or “developing” nations. Developed nations perpetuate their dominance through political, economic, and cultural means, in effect waging a campaign designed to justify unequal power relationships and perpetuate unequal development (Castells & Laserna, 1994, pp. 57, 77; Chase-Dunn & Grimes, 1995, p. 389).

World Systems Theory introduced a middle category of “semi-peripheral” nations not only to describe the flow of wealth but to illustrate how nations might lose or gain position through various governmental policies and the development of new market strategies (Haggard, 1990, pp. 23-48). These strategies can mean ascending towards the top of the global economic ladder but they do not necessarily mean engaging in environmentally or socially sustainable practices (Gereffi, 1994; McLaren, 2003, pp. 19-37). The global ascendance of capitalism instead has resulted in extreme polarization between rich and poor at both local and global levels and an increasing distance between consumers and consumer goods that obscure both human and environmental costs. It is in this context that arguments for sustainability and social justice emerge.

While developing nations suffer in conditions of relative squalor, their social and geographical distance from developed nations makes their struggle a distant one. Global commodity chains illustrate how divorced consumers are from the extraction of natural resources and ex-

ploitation of human labor that go into producing even the most basic consumer goods (Gereffi & Korzeniewicz, 1994). Fair trade and anti-sweatshop movements have gained some traction in arguing for a more equitable relationship between consumers and producers, yet there is still much work to be done to reconcile current patterns of consumption with environmental destruction and human exploitation. Although natural disasters garner sympathy and support, it is the ongoing specter of poverty and inequality that are the world's deadliest enemies. The number of children who die each month because they lack access to basic services "is equivalent to three tsunamis a month, every month, hitting the world's most vulnerable citizens" (United Nations Development Programme, 2005, p. 1).

The Millennium Development goals established during the UN Millennium Summit in September 2000, demonstrate the need for global partnerships to address the unequal distribution of such basic resources as education, water, health care, and sanitation. The eight goals break down into 18 quantifiable targets and are measured by 48 indicators. They are intended to be people-centered, time bound, measurable, and achievable by 2015. Together, they recognize the relationship between growth, poverty reduction, and sustainable development. Although progress towards reaching the eight goals is slow, they emphasize the need for broad based coalitions between public and private sector stakeholders and a recognition that developed and developing nations need to work together to solve some of the world's most difficult problems. Particularly in developing nations, where many of the world's megacities are surrounded by vast and growing slum neighborhoods, critical interventions are needed to ensure that occupants have access to basic services. Since the number of urban dwellers living in slums continues to increase (United Nations, 2005), particularly in Southern and Eastern Asia, this is a particularly timely case for review.

MULTI-LEVEL PARTNERSHIPS AND STAKEHOLDER PARTICIPATION: ORGANIC COMPOSTING IN DHAKA, BANGLADESH

This section illustrates, in greater detail, the relationship between social justice and sustainable development as involving not only equitable distribution, but also environmental and economic viability. A case on Dhaka, Bangladesh, explores a program for marketing solid waste management and demonstrates the potential and the need for creating partnerships between local and state governments, NGOs, and community stakeholders. These partnerships serve to increase human welfare,

Table 1. Goals of the Millinnium Development, 2000

Goal 1	Eradicate extreme poverty & hunger
Goal 2	Achieve universal primary education
Goal 3	Promote gender equality & empower women
Goal 4	Reduce child mortality
Goal 5	Improve maternal health
Goal 6	Combat HIV/AIDS, malaria & other diseases
Goal 7	Ensure environmental sustainability
Goal 8	Develop a global partnership for development

From *The millennium development goals report*, United Nations, 2005.

while maintaining environmental integrity. It suggests the importance of considering environmental sustainability, citizen participation, social justice, and resource equity in developmental decision making.

The organic composting project introduced below addresses the environmental problem of over-farming by improving soil fertility and the social problem of inequality by insuring that slum dwellers have access to basic sanitation. This case is part of a larger project by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) which examines the efficacy of local initiatives in providing services to the poor. There are five projects included in the report and although each differs in scope and particulars, all have several features in common which contribute to their success. They all involve partnerships between governments, local companies, and NGOs, and involve community stakeholders in all phases of implementation. Although external assistance may be used for start up costs, local resources are relied on for long-term maintenance. The final and perhaps most surprising characteristic is that the poor pay for services and are held accountable for water and waste management costs. These projects demonstrate that social justice is an important consideration in managing the distribution of limited environmental assets and reducing citizen risk.

The project under consideration here takes place in Dhaka, Bangladesh, where an NGO called Waste Concern partnered with the government and community to establish land for waste management and organized the collection, composting, and marketing of solid waste. The impetus for this project came from recognizing several opportunities. First, the amount of solid waste generated is not only considerable but

it has value, as demonstrated by informal recycling efforts. Second, implementing a composting program would not only help redistribute this value among citizens but end environmentally hazardous waste disposal practices (UNESCAP, 2005, p. 12). Despite these insights, implementing the project proved surprisingly complex.

The first pilot project began in 1995 in one of Dhaka's middle-income neighborhoods. To acquire the land for their first composting plant, Waste Concern appealed to the International Lion's Club. They then worked with the local community to organize house-to-house waste collection and composting, and contracted with Map Agro Industries, a private sector company, to market the compost. Their initial success attracted the attention of the Ministry of Environment and Forest (MoEF), which was in the process of implementing a program to manage solid waste in Dhaka in collaboration with the United Nations Development Program's Sustainable Environment Management Programme. Participating in this program required that Waste Concern establish four additional community sites near Dhaka City. To do so, they pursued a partnership with the Public Works Department (PWD), which would provide the land on which the new plants would be located as well as water and electricity on site. Although initially reticent to pursue such a partnership, the PWD eventually agreed to a flexible one-year trial period, during which it could shut down the plant if the land was used for purposes other than composting.

Replicating this project relied on establishing a partnership with both the PWD and the Dhaka City Corporation (DCC), the municipal authority responsible for providing urban services. Although it took a year of negotiations to establish, DCC support would help make this project a model for neighborhoods throughout Bangladesh. The formal agreement with DCC was similar to that established with PWD, leaving Waste Concern to assume most of the risks associated with the program's operations. Although ownership of the plant is eventually turned over to the community or the public agency that owns the land, Waste Concern continues to monitor operations to ensure quality and profitability, oversee fee collection, and resolve any conflicts that arise.

Although multi level partnerships are essential for the success of this project, without community buy-in, it would surely fail. To introduce the project and gauge resident interest, Waste Concern arranged a series of meetings with residents. To make the project viable, residents needed to demonstrate willingness to participate in waste collection and long-term operation of the composting plant, and the ability to pay for this service. Community groups called "Green Force" were trained to

perform house-to-house waste collection and encourage community awareness and participation. The cost per household for waste collection was fixed according to income. Surprisingly, and despite stereotypes of the poor as unable or unwilling to pay for services, Waste Concern's system for waste collection remains self sufficient and run by the communities in which each project is located. As the report indicates, after paying salary, operation, and maintenance costs, there is a net monthly savings from the collection service (UNESCAP, 2005, p. 20).

Thus far, the project has been successfully implemented in 18 cities and towns in Bangladesh, and an additional 20 in Sri Lanka and Vietnam. Excluding the cost of the land on which the composting plant is located, the majority of the revenue to run the project comes from the sale of the compost. The additional revenue is generated through user fees and any surplus revenue is used for monitoring and maintenance costs, or kept in a community account. All residents, and women in particular, directly benefit through better working conditions and salaries and the improved quality of life that neighborhoods enjoy through sanitary solid waste disposal. By employing sustainable development principles, Waste Concern has managed to ensure that their organic composting project is not only environmentally sound but economically profitable and socially just and sustainable.

In addition to organic composting in Dhaka Bangladesh, the five projects that were part of the UNESCAP report provided community toilets for migrant workers in Tangerang, Indonesia, drinking water for poor communities in Manila, Philippines and Columbo, Sri Lanka, and a community contracts system to provide essential services throughout Sri Lanka. While the particulars of each case vary, they all begin with local interventions and work towards successful replication. These cases also incorporate the expertise of community stakeholders and rely on continued participation for the ongoing viability of the project. Although timely and difficult to negotiate, they also involve partnerships between multi-level institutions and often an NGO willing to mediate between public, private, and governmental interests. When such partnerships are either not achieved or maintained, as is too often the case, the resultant effects on public health can be disastrous.

CONCLUSIONS: SUSTAINABILITY SOLUTIONS

The cases introduced above demonstrate the difficulties involved in implementing sustainable development in the midst of established patterns of inequality. The projects implemented in Malawi, Kenya, and

Brazil emphasize the importance of incorporating local, indigenous knowledge with sound environmental practices. Related to this, the project implemented in Bangladesh stresses the need to incorporate multi-level public, private, local, and governmental partners as well as citizens. Together, these cases illustrate that despite existing patterns of inequality and the difficulties involved in implementation, sustainable development planning can be used to solve some of the most troublesome problems of society today. These solutions are dependent on the extent to which citizens are included in the decision making process, on the integration of professional and citizen expertise, and on the balancing of human needs and the environment in the long-run. Perhaps the most challenging aspect of implementing sustainable development is in righting the wrongs of established patterns of inequality and making sure that successful projects are widely replicated.

Sustainable development does not necessarily lend itself to perfect translation from theory to practice. Social justice and equity continue to be problems in any allocation of scarce resources. In considering social justice and equity in the distribution of environmental resources, there must be an understanding of the gap between the idealized models of sustainable development and their real world applications. Sustainable development is not a simple solution to economic, social, and environmental problems faced by public administrators, but a philosophy of practice that can guide decision making only if meaningfully, consistently, and rigorously applied. The danger is that sustainable development, like other public administration practices such as strategic planning and zero-based budgeting, may lose its potential for impact if applied without commitment, critical analysis, and self-assessment of decision makers. Sustainable development is a tool, an opportunity to reconsider tenets most consider critical to public administration. Efficiency, equity, participation, effectiveness, and social justice can be reemphasized by considering systems-wide impact on human beings and on the environment.

Sustainable development should consider problems of social justice and is strengthened by the inclusion of equity and of ethics. In fact, creating sustainable development plans without consideration of equity and social justice goes against the tenets of inter-generational and intra-generational equity on which the philosophy is built. Sustainable development goes beyond resource-based decision making that is focused only on property ownership and legal standing by incorporating ethical concepts to economic decisions. Wherein market-based decisions have traditionally held negative outcomes for the poorest populations and

for the environment, sustainable development requires realignment of short-run goals with long-run outcomes across social and economic groups and across political boundaries. Participation and time and place knowledge can further improve outcomes by increasing economic equity, by lowering local public risk, by increasing citizen buy-in and cooperation, and by contributing to rational decision making information. Sustainable development, as a philosophy of action in public administration, is viable and promising. Its problems lie in the depth and meaning of its application. Sustainable development, integrated with community specific strengths, assets, and voices, could be a critical tool in the management of equity issues and resource scarcity.

REFERENCES

- Bartle, J., & Leuenberger, D. (2006). The idea of sustainable development in public administration. *Public Works Management and Policy*, *10*, 191-194.
- Bertalanffy, L. (1968). *General system theory: Foundations, development, applications*. New York: George Braziller.
- Brulle, R. J. (2000). *Agency, democracy, and nature: The U.S. environmental movement from a critical perspective*. Boston: MIT Press.
- Castells, M., & Laserna, R. (1994). The new dependency: Technological change and socioeconomic restructuring in Latin America. In A. D. Kincaid & A. Portes (Eds.), *Comparative national development* (pp. 57-83). Chapel Hill: The University of North Carolina Press.
- Chase-Dunn, C., & Grimes, P. (1995). World-systems analysis. *Annual Review of Sociology*, *21*, 387-417.
- Diamond, J. (2004). *Collapse: How societies choose to fail or succeed*. United Kingdom: Viking Adult.
- Fischer, F. (2000). *Citizens, experts, and the environment: The politics of local knowledge*. Durham: Duke University Press.
- Gereffi, G. (1994). Rethinking development theory: Insights from East Asia and Latin America. In A. D. Kincaid & A. Portes (Eds.), *Comparative national development* (pp. 26-56). Chapel Hill: The University of North Carolina Press.
- Gereffi, G., & Korzeniewicz, M. (1994). *Commodity chains and global capitalism*. Westport: Praeger.
- Gibson, C., McKean, M., & Ostrom, E. (2000). *People and forests: Communities, institutions, and governance*. Boston: MIT Press.
- Giddens, A. (2003). *Runaway world*. New York: Routledge.
- Giddens, A. (1990). *The consequences of modernity*. Stanford: Stanford University Press.

- Haggard, S. (1990). *Pathways from the periphery: The politics of growth in the newly industrializing countries*. Ithaca: Cornell University Press.
- Helmore, K., & Singh, N. (2001). *Sustainable livelihoods: Building on the wealth of the poor*. Bloomfield, CT: Kumarian Press.
- Johnston, J. (2006). Who cares about the commons. In J. Johnston, M. Gismondi, & J. Goodman (Eds.), *Nature's revenge: Reclaiming sustainability in an age of corporate globalization* (pp. 39-71) Toronto: Broadview Press.
- Leuenberger, D. (2006). Sustainable development in public administration: A match with practice? *Public Works Management and Policy*, 10, 195-201.
- Maathai, W. (2003). *The green belt movement: Sharing the approach and experience*. New York: Lantern Books.
- McLaren, D. (2003). Environmental space, equity and the ecological debt. In J. Agyeman, R. D. Bullard, & B. Evans (Eds.), *Just sustainabilities: Development in an unequal world* (pp. 19-37). Cambridge: The MIT Press.
- O'Connell, B. (1999). *Civil society: The underpinnings of American democracy*. Hanover: University Press of New England.
- Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. London: Cambridge University Press.
- Ostrom, E., Schroeder, L., & Wynne, S. (1993). *Institutional incentives and sustainable development: Infrastructure policies in perspective*. Boulder: Westview Press.
- Pierce, D., Barbier, E., & Markandya, A. (1990). *Sustainable development: Economics and environment in the Third World*. Brookfield, VT: Gower Publishing.
- Rao, P. K. (2000). *Sustainable development: Economics and policy*. Oxford: Blackwell Publishers.
- Redclift, M., & Woodgate, G. (1994). Sociology and the environment: Discordant discourse? In M. Redclift & T. Benton (Eds.), *Social theory and the global environment* (pp. 51-66). New York: Routledge.
- Reed, R. (1997). *Forest dwellers, forest protectors: Indigenous models for international development*. Boston: Allyn and Bacon.
- Simonsen, W., & Robbins, M. (2000). *Citizen participation in resource allocation*. Boulder: Westview Press.
- United Nations Development Programme (UNDP) (2005). *Human Development Report*, New York: Oxford University Press.
- United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) (2005). *Improving the lives of the urban poor: Case studies on the provision of basic services through partnerships*. Retrieved July 10, 2007, from <http://www.unescap.org/pdd/prs/ProjectActivities/Ongoing/Best%20practice/Publication.asp>.

- United Nations. (2005). *The millennium development goals report*. Retrieved September 10, 2005, from www.un.org/millenniumgoals.
- von Hayek, L. (1945). The use of knowledge in society. *American Economic Review*, 35, 519-530.
- Weaver, J. H., Rock, M. T., & Kusterer, K. (1997). *Achieving broad-based sustainable development: Governance, environment, and growth with equity*. West Hartford: Kumarian Press.
- Williams, B. A., & Matheny, A. R. (1995). *Democracy, dialogue, and environmental disputes: The contested languages of environmental dispute*. Connecticut: Yale University Press.

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