POLICY DEBATE

Rejoinder: How EPA research, policies, and programs can advance urban sustainability

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We thank the three reviewers for their thoughtful reflections on our article and would like to take this opportunity to respond to some of their comments.

Underestimating the Challenge

Martin Bierbaum highlights the formidable challenges we are addressing and asks if our vision is focused rather narrowly, as on green building, or more broadly, as on transforming “our understanding of environmental protection and the EPA mission.” The answer is the latter. We see today’s environmental problems as needing a systems approach. Organized along media lines, EPA faces the challenge of how to overcome its stovepipe mentality. From its historical roots, the agency has come a long way, as demonstrated in a recent article that one of us co-authored (Grossarth & Hecht, 2007). Our current SSPP contribution is intended to stimulate discussion and to provoke fresh thinking about the future of environmental protection, at least with respect to the urban environment. Our aim is to help move EPA to the next level.

Our article takes its lead from the current EPA Administrator Stephen Johnson, who has declared, “[a]ddressing the multi-dimensional environmental challenges of the 21st century requires a more holistic mindset, one that looks beyond today and toward achieving truly sustainable solutions for tomorrow.” Because EPA’s legislative foundation is based on separate laws dealing with specific media—land, air, water, and toxics—integrating across programs has become a big challenge. It is no secret that our article was composed when many Americans are preparing for a presidential election and debating national issues. We have sought to challenge ourselves as EPA managers to examine urban sustainability in an integrated fashion, as a means to stimulate innovative polices and to better coordinate EPA’s many regulatory and nonregulatory programs.

As Bierbaum points out, we did not discuss the finer details of how such a transformation can happen. Our goal was instead to outline the need for a more integrated urban sustainability approach and to give examples showing where such integration is underway. By promoting an urban sustainability strategy and highlighting the work of the Green Building Working Group, we are challenging ourselves and EPA to address the integration of agency programs. We are optimistic because nearly all the programs identified in the article feature significant sustainability elements. Missing is the glue of management and the political will to hold them together. We hope that our contribution will raise public awareness and encourage a more integrated public policy response.

The EPA as an Environmental Architect

We are gratified that David Pellow judged that we “offered a coherent statement on urban sustainability,” but our meaning may have been less than clear when we called EPA “the national environmental architect.” Bierbaum, too, asks what we meant by this wording. We used this phrase to reflect EPA’s role as an environmental leader and steward. Because EPA uses rules, regulations, voluntary programs, and public outreach to guide environmentally responsible and sustainable decision making, we indeed regard the agency as an “environmental architect.”

Our idea is more clearly defined in EPA’s new Sustainability Research Strategy (USEPA, 2007a). The Strategy, a roadmap for current and future administrations, articulates a clear vision:
From the perspective of [EPA’s] Office of Research and Development, the science of sustainability is developing the underlying knowledge base that allows decision-makers to make sustainable choices. For natural resource managers, this means how to manage our natural resources to provide maximum services today and in the future. For urban planners, this means how to build cost-effective and efficient urban systems that protect both human health and the environment. For decision-makers in industry, this means how to enhance economic growth while minimizing industry’s footprint on the environment.

Our article provided an important example of EPA as an environmental architect in its role helping municipalities deal with climate-change implications for urban water systems (USEPA, 2006). A draft EPA study released for public comments in early 2007 demonstrates that rebuilding combined sewer systems in the Great Lakes region may not satisfy water-quality standards if their design fails to consider climate change. But the study also shows that the risks are manageable: city planners and water-resource managers can anticipate the effects of climate change and adapt their new designs to incorporate these effects. The draft EPA assessment thus provides timely information that can lead to more sustainable outcomes. Its results have already been shared with many mayors from Great Lakes cities and can offer concrete benefits to the 182 communities in the region that have combined sewer systems.

The insights provided by this EPA assessment will also be useful to other communities across the country that have combined sewer systems—some 770 jurisdictions with about 40 million people. These systems annually release 1,260 billion gallons of untreated sewage and storm water. An estimated US$45 billion or more in investment will be needed to redesign and rebuild these aging systems to attain water-quality standards. The EPA assessment will play a significant role in developing new systems that effectively protect water quality, aquatic ecosystems, and human health.

The EPA programs identified in our article feature many regulatory and voluntary activities that have demonstrated impacts on public behavior and the market place. A good example is the expansion of EPA’s ENERGY STAR program to rate buildings and commercial plants (see ENERGY STAR, 2007). We believe that by linking these programs, EPA could have an even greater impact on public policy. Hence our focus on an urban sustainability strategy.

We are seeing the benefits of a more integrated approach to environmental issues in EPA’s Cooperative Science and Technology for Sustainability (CNS) grants program. Since 2004, this program has been enabling grantees to work together in exploring new approaches to environmental protection that are collaborative, systems-oriented, preventive, and forward-looking. CNS is a testing ground for scientifically based tools and approaches that can advance a sustainable future at a regional scale.

EPA created the CNS program to show how the agency can work across media lines. Several CNS projects have focused on urban sustainability, ranging from urban planning in Puerto Rico to designing watersheds in Maryland counties. The CNS grants, and the processes that they generate, foster collaborative problem solving around key sustainability-related issues. In these projects, stakeholders with different economic and social interests work together to support efforts integrated across different media. We would argue that these activities are quite different from what Pellow calls a “garden-variety environmental sustainability plan of any Fortune 500 corporation.”

Regulatory and Non-Regulatory Approaches

It is not clear to us why Pellow perceives that we assume growth is inevitable and inherently good, for we are not promoting an “economic growth imperative.” We agree with his admonition to consider “qualitative growth paradigms that would strive for an increase in the number of healthy communities or healthy sustainable business practices and in income/wealth/social equality.” However we certainly do not agree that “for EPA to adopt a voluntary approach to remediating environmental injustices that may have been forced upon many populations is simply unacceptable,” or accept his assertion that “[u]nfortunately...regulation is not on the agenda because EPA operates under a framework that endorses rather than confronts the current political and economic system.”

Over its history, EPA has applied four broad approaches to fostering environmental protection: (1) Endorsing encompasses policies that reward or encourage sustainable behaviors, such as EPA’s ENERGY STAR and Design for the Environment programs; (2) Facilitating involves providing information, funding, or incentives to advance sustainable behavior, through such agency programs as Performance Track, as well as by providing consumer in-

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1 Previous and current CNS projects are described at USEPA, 2007b.
formation, monitoring energy and water use, and promoting its new stewardship initiative; (3) Partnering includes voluntary programs, such as EPA’s Climate Protection Partnerships and a host of others, providing for collaborative problem solving; and (4) Mandating relates to enforcing legislation and executive orders (Grossarth & Hecht, 2007). Over time, and depending on its leadership and the nature of specific problems, the mix of these approaches changes. EPA must assess how it can best employ each approach in different settings to protect human health and the environment.

Looking Ahead

Urban sustainability is one element of a broader business and government sustainability agenda. Our article asks what role EPA will play in the future. While continuing to fulfill its vital regulation and compliance responsibilities, we believe EPA will need to assess how a regulatory agency created to address only pollution control must now face a new set of problems resulting from economic and population growth and increasing urbanization. This will be no easy task, but a necessary one for a healthy, prosperous, and sustainable environment. Our focus on promulgating a strategic plan is to promote public dialogue on these issues and to help shape EPA’s efforts in addressing problems clearly defined by the American context and lifestyle.

Arnold Tukker notes the broad cultural differences between the United States and Europe in engaging with urban development problems. Our perspective values the four management approaches identified above, as well as collaborative work with local stakeholders, business, and government to achieve a different vision of the future. The timing is right for such a debate. We are looking ahead. Management expert Peter Drucker has said that “the best way to predict the future is to create it.” Such is our intent.

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