Getting It Done: An Exploration of US Sustainability Efforts in Practice

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Introduction

Local Agenda 21 activities stemming from the 1992 UN Conference on Environment and Development, and the more recent Local Action 21 mandate from the 2002 Johannesburg Conference, have kept planning for sustainable development on the front burner internationally (Otto-Zimmerman, 2002; Wild & Marshall, 1999). However, in the United States there is little understanding of the pervasiveness that sustainability has across the country in general. This article reviews a variety of sustainability related implementation efforts taking place in the Midwestern city of Chicago, Illinois, with additional examples from Cleveland, Ohio. Although these cities are among the most populous in the nation, their efforts are often overlooked in the sustainability literature (Berke & Conroy, 2000; Jepson, 2004) because they lack the state level initiatives or comprehensive plan notoriety that have created successful sustainability planning efforts elsewhere (e.g. Berke & Conroy, 2000). However, these cities provide insights into opportunities and challenges for others interested in taking steps towards sustainability. These opportunities and challenges are highlighted and a detailed example of a particular case, that of Columbus, Ohio is presented in which we examine the use of a service learning style initiative to help ‘jump start’ a proactive, integrative sustainability effort. Based on the analysis, this article looks to identify strategic opportunities for leveraged intervention that can further the adoption of sustainability principles and actions both in Columbus and elsewhere.

The significance of this research effort lies in elucidating sustainability related activities taking place outside of the Portland, Seattle, and Burlington mindset. These cities have become nearly synonymous with the concept of sustainable development in the United States, and their stories are well known on the international stage as well: Portland eschewed federal highway funds, instead tearing out highways and putting in light rail; Seattle pioneered the
institutionalization of sustainability indicators through a community based, non-profit organization; and Burlington has coordinated various projects to implement a ‘culture of sustainability’ as part of their Legacy Project. Insights into how other cities are approaching sustainability are needed to propel communities to adopt sustainability measures. Variations on implementing sustainability strategies or simple projects provide additional tools in planning for a sustainable development tool-kit. The greater the number of community examples, the more likely that a success story will strike a chord with another community.

This article begins with an overview of the implementation issues associated with sustainable development. Next, we review practice-based examples of sustainable development in Chicago as well as in Cleveland. A service learning approach case study of Columbus is then examined in detail. Finally, we conclude with insight into the value of the implementation examples for future sustainability efforts across the United States.

**Sustainability: Discussion versus Implementation**

Sustainable development is a contested concept that has provided fodder for academic- and practice-based debate. Its foundation and application in varied disciplines can only signify that the debate on its meaning will continue (e.g. Filho, 2000). This debate will be a critical component in the long-term integration of the concept into institutional decision making. The definitions that exist primarily stem from the UN World Commission on Environment and Development’s 1987 Brudtland Commission’s report, which defined sustainable development as ‘development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs’ (p. 8). As noted by Berke and Conroy (2000), the ‘various definitions from the literature in planning scholarship and practice reveals key characteristics used to derive a more prices definition’ (p. 22). These characteristics (reproduction, balance, linking local to global concerns and dynamic process) are brought together in their working definition: ‘Sustainable development is a dynamic process in which communities anticipate and accommodate the needs of current and future generations in ways that reproduce and balance local social, economic, and ecological systems, and link local actions to global concerns’ (p. 23).

However, also critical to the practical future of the concept of sustainable development are more examples of how the concept translates into daily practice, regardless of semantics. While there have been reviews in the literature of local efforts to promote sustainability ideals and principles (see e.g. Krizek & Power, 1996; Beatley & Manning, 1997; President’s Council on Sustainable Development, 1997; Berke & Conroy, 2000; Mazmanian & Kraft, 1999; Portney, 2004, among others), many of them have focused on a limited number of noteworthy communities. For example, Berke and Conroy (2000) reviewed comprehensive plan policies from 30 high-end communities across the country, Portney (2004) examined the sustainability ‘seriousness’ of 24 of the better known progressive planning communities in the US, and Krizek and Power (1996) did case studies of a handful of leading US communities. Between the three studies, there were 50 unique places of analysis, and only seven communities were from the Midwest.
region. According to the US Census, there are more than 25,000 geographical entities that they term ‘places’ in the US, and it is difficult to imagine that all of them will see similarities with the 50 ‘leading edge’ communities found in the literature.

Implementation of sustainable development is a challenging task. As noted by the Berke and Conroy (2000) definition, it is both dynamic and intergenerational, making it difficult to assess ‘success’ at any particular point in time. Much like similarly nebulous concepts of liberty and freedom, sustainability is most apparent as its opposite. We know what ‘unsustainable’ looks like—the sprawl, the automobile dependence, the social inequities, the environmental degradation—but can we then surmise that actions that promote the opposite of those characteristics should be considered sustainable? Although this is a simplistic approach, it does provide a logical foundation from which practice-based actions can be promoted to lead to more sustainable outcomes.

The planning literature has called for an assessment of plan and plan policy implementation efforts (e.g. Talen, 1996; Laurian et al., 2004). As planners, we cannot measure the effectiveness of our plans or processes without an understanding of the practice link that they generate, whether conformance-based or performance-based (Laurian et al., 2004). However, a principal challenge of implementation is that it is not a singular event. In fact, it is not even necessarily distinct from the decision-making process: ‘One implementation study identified 70 decisions necessary to implement just one provision of an economic development program’ (Pressman & Wildavsky, qtd in Sproull & Hofmeister, 1986, p. 44). Furthermore, the overall success of an implementation effort will necessarily be tied to the clarity of its innovation and the related link with behavioural changes it will necessitate (Sproull & Hofmeister, 1986).

Research on sustainable development is also becoming more focused on the implementation, or action, component (Laws et al., 2004). A practical challenge lies in the distinctive element of sustainable development in action, its integrative characteristic (e.g. Yanarella, 1999; Beatley, 2000; Laws et al., 2004). Sustainable development in practice has been referred to as ‘transdisciplinary’ because it not only integrates discipline knowledge from planning, ecology, economics, sociology and other disciplines, but also ‘the kind of domain specific knowledge that a farmer, the foreman on a manufacturing line or a long-term resident of a place brings to the table’ (Laws et al., 2004, p. 250). Implementation must then incorporate citizens of a community in addition to planning and planning-related professionals.

What, then, is the most appropriate way for a community to implement an integrative sustainability initiative? Yanarella (1999), who argues for an integrated and holistic ‘balance-seeking process’, writes, ‘Here, sustainability at the scale of the city becomes not a distant goal to be striven for but a complex and dynamic process to be maintained in the face of continuing change and tendencies toward imbalance’ (p. 212). The implication is that radical structural changes will be needed at the government administrative level in order to unite disparate departments of planning, economic development, transportation, and the like. Changes may focus on problem orientation (e.g. a liveability office within an overarching sustainability department) rather than the more typical topic
orientation. Departmental budgets might also be revised to focus on problems. Yanarella acknowledges that this is a formidable task.

Another approach is to assume that any move towards more sustainable activities is positive progress, even if it falls short of the integrative whole. The idea is to aim for ‘low-hanging fruit’; that is, to focus on short-term or easy-to-implement actions that, although piecemeal, provide a foundation from which to build a more integrative sustainability programme (e.g. Beatley, 2000; Jepson, 2004). These actions can significantly move a city and region forward, help build long-term local support for sustainability, and result in actions that can be easily defended and endorsed for clear economic as well as broader environmental and social reasons. Although Yanarella (1999) and others argue that such an approach will make the sustainability transition more difficult in the future, small successes can both motivate participants to tackle more complex tasks and make them optimistic about future sustainability strategies. Quinn (in Sproull & Hofmeister, 1980), for example, found that ‘firms that implement successful strategic change apparently do so by an incremental process that includes altering peoples’ mental representations of strategy’ (in Sproull & Hofmeister, 1986, p. 45). When sustainable development is seen as easy changes to short-term behaviour rather than an onerous and complex change, participants are allowed to retain a positive mental representation of the concept. Additionally, the low-hanging fruit approach works within existing governmental structures, thereby lessening further resistance to change in behaviours and processes.

**Sustainable Development in Practice**

Many cities and regions around the country are in the process of exploring what sustainability means in practice, and how and in what ways they can become more sustainable. There are important and constructive lessons from cities outside the orbits of Portland, Burlington and Seattle that may be considered improbable or less known leaders in the area of sustainability. What follows are examples and observations in six areas about important incremental steps and potent strategies that have proven useful in cities less known for their sustainability efforts.

**Demonstration Projects and Pilot Programmes**

Much can be accomplished through strategic pilot initiatives and demonstration programmes, especially in cities where more comprehensive sustainability policies or programmes may be difficult to implement. The essential ideas are to shape popular and professional local thinking and to pave the way for additional actions by private and public sector organizations and actors. Chicago, under Mayor Richard Daley’s leadership, is a good illustration of the potential of this tack. A dramatic demonstration of it can be seen in the retrofitting of Chicago’s City Hall with a green rooftop (see American Society of Landscape Architects, 2002). This retrofit, more than 20,000 square feet in size and entailing more than 20,000 plants, has been a clever way to raise the visibility of green city thinking and ideas and, specifically, to demonstrate the beauty and possibility of this particular sustainability technology. It has advanced and given visibility to the city’s Green
Roof Program as a response to Chicago’s urban heat island concerns, and it has also received significant attention locally, nationally and even internationally. In May 2003, Chicago hosted the nation’s First Annual Greening Rooftops for Sustainable Communities Conference, Awards and Trade Show, further showing both the value of such demonstrations and the role of the City Hall project, especially in Chicago’s emergence as a leader on this topic.

Another creative demonstration project that has occurred in Chicago is *Green Homes for Chicago*, an initiative to demonstrate the feasibility of energy-efficient green homes (Chicago Department of Environment and City of Chicago Department of Housing, no date). Chicago leveraged limited funds to sponsor a design competition and, following the selection of five winning entries, financially underwrote their actual construction. Construction is now underway on several of the homes, and the likely outcome is increased knowledge about and support for green homes among builders, designers and the general public as a reasonable, feasible and affordable housing option.

The city of Chicago has undertaken other demonstration projects as well as a number of impressive urban sustainability initiatives. Their ability to fund these initiatives has been made possible in large part because of a multimillion dollar settlement agreement with the Commonwealth Edison (ComEd) Company in March of 1999 (Valazquez, 2006). As part of the settlement, ComEd established a $100 million ‘fund for the future’ administered by the Chicago Department of Environment (DOE), $2.5 million of which supported the establishment of the DOE’s Urban Heat Island Initiative (UHII) (Valazquez, 2006). Therefore, while newer projects have the advantage of the settlement funds, it was a relatively small local pot of funding that was the seed for the initial pilot projects and demonstrations.

**The Important Role of Partnerships and Alliances**

The local and, more importantly, regional agenda of sustainability requires the active involvement and enthusiasm of many different groups and organizations. Partnerships and alliances can accomplish much, serving both to marshal limited resources and to build a politically supportive climate for sustainability. *Chicago Wilderness* is a marvellous example of this. This regional nature reserve collaborative initiative now includes more than 190 public and private organizations in the region, all working towards the common vision of restoring and expanding the region’s system of green spaces and biodiversity (see http://www.chicagowilderness.org/). The coalition was formed in 1996 by 34 institutions concerned with land and biodiversity issues in region, and, since its foundation, coalition members have partnered on 240 projects. Much has been accomplished already, including the preparation of perhaps the first regional map of parks and protected areas for this region—a network of 200,000 acres of an ecological main structure. Another accomplishment has been the creation of an *Atlas of Biodiversity* and a *Biodiversity Recovery Plan* for the region. Moreover, there are hundreds of ongoing collaborations, from weekly prairie and wetland restoration work to in-school education programmes to the publication of a fantastic magazine called *Chicago Wilderness* (available from http://chicagowildernessmag.org). These hundreds of
activities are carried on through a coordinating structure, to be sure, but they show what can be achieved when groups are challenged to think about their common agendas—the things that bring them together rather than the things that might conventionally drive them apart.

Working together and collaborating across municipal or county departmental lines is an equally important strategy to advance local sustainability. In Chicago, the Green Homes initiative was the result of the city’s Housing and Environment departments joining forces. The latter was interested in promoting energy efficiency, while the former was interested in affordable housing. Green Homes, homes that are energy efficient and affordable, is a logical area of collaboration in which the mission of each department is advanced.

Starting with the Low-hanging Fruit: Green Building, Parks and Trees

A number of local governments around the US have adopted some form of a green building programme or policy, and the availability of the LEED (Leadership in Energy and Environmental Design) Green Building Rating System has made implementation of such policies dramatically easier and more clear-cut. LEEDs is a rating system overseen by the US Green Building Council that evaluates and certifies buildings based on factors such as sustainable sites, water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality. The options for green building programmes include mandating minimum green building standards (e.g. minimum LEED certification) for public or publicly funded structures, mandating minimum standards for all private development, providing subsidies for green buildings (e.g. density bonuses as provided by jurisdictions such as Arlington County, Virginia), and providing technical advice and guidance. While many of the early leaders in green building programmes and policies have, indeed, been cities like Portland and Seattle, more typical American communities are increasingly embracing the ideas. Cities can require that government-related developments adhere to LEED standards, or achieve a certain certification level (certified, bronze, silver, gold or platinum). Chicago, for example, has instituted a Green Building Agenda that incorporates many of the LEED practices (Chicago, 2005). Evidence of the ‘mainstreaming’ of green building can be seen in the growing number of cities and regions where one or more green building trade organizations and advocacy groups currently exists (e.g. Pittsburgh, Cleveland, Atlanta, Boston).

Green building may be such a promising first step towards sustainability in part because of its tangible dimensions—people can see, touch and experience the results directly. Also, perhaps most importantly from a builder or developer’s perspective, the economic advantages of green design are increasingly demonstrated in practice even in the relative short term. Trees and tree planting represent another important example of local low-hanging fruit. They do not lead to radical sustainability, but trees can do much to improve the environmental performance of a city and to demonstrate clearly the environmental benefits of urban greening. Also, while trees are not inexpensive, they are investments that unquestionably pay for themselves in both short- and long-term time frames. American Forests, a Washington-based organization, has done much to study and quantify the
environmental, social and, ultimately, economic benefits of tree planting. For instance, their analysis of the economic benefits of applying tree-planting standards to downtown Atlanta found that almost half a million dollars a year in stormwater benefits would be provided (see American Forests, 2002). Significant monetary savings to cities also result when the energy reduction and air pollution amelioration benefits of trees are taken into account. Trees and tree planting throughout the urban areas of a city have undeniable and easy-to-document benefits, and they can help move a city and its region in the direction of sustainability.

Strengthening and expanding local parks represents a related sustainability strategy. Recent evidence suggests that there can be a tremendous payoff in terms of city image, economic development, quality of life and, of course, environmental protection from open space and park expansion. The Trust for Public Land (TPL) has effectively documented the economic and property value benefits of parks, greenways and open space (TPL, 2000; Harnik, 2003).

Sustainability and City Image

As we see next, the experiences of both Chicago and the City of Cleveland demonstrate the important and promising connections between sustainability and the public image of a city and region. Making these connections explicit is a key lesson. Mayor Daley has argued convincingly that Chicago’s green city agenda helps to enhance the quality of life in his city significantly, and that it in turn enhances its attractiveness to prospective companies and future residents. To be sure, while the improvements in city performance and the quality of life are real, the perception of Chicago as a leader, a city on the move doing interesting things and successfully improving its own environment while working to improve the planet’s as well, is equally important. Daley and other proponents of Chicago can point with some validity to signs that these image-improving strategies are, in fact, working. Daley points to the relocation of the headquarters of Boeing (from Seattle, no less) and the increase in population in the city over the decade of the 1990s as examples of successes. While these measures of success may be indirectly due to the environmental initiatives that have been undertaken, as the city has become ‘greener’ it has also become a more popular place to live and do business.

Similarly, in Cleveland, green city and urban sustainability ideas are seen as a positive recasting of the image of that city from a declining rust belt town to a city of nature, innovation and amenities. As Sadhu Johnston, former head of the Cleveland Green Building Alliance, notes, the popular view of Cleveland has often been a negative one tied to a burning river and the ‘mistake on the lake’ nickname. Sustainability offers the chance to counter this perception: ‘People sometimes write off the region. But soon they’ll look at Cleveland and say, ‘‘Oh, that’s how the Rust Belt comes back’’” (qtd in Taylor, 2003). This is evidenced by a 2002 Travel World article that reads, ‘Now, all of a sudden, the same city that was once the poster child for urban blight has placed a surprising second in the Places Rated Almanac ranking of recreational options in 354 metropolitan areas’ (Schlossberg, 2002). Emphasizing the quality-of-life improvements and general
image-enhancing possibilities of green city and sustainability policies is potentially a very important implementation strategy for communities. In May 2005, then-Cleveland Mayor Jane Campbell introduced the city’s first Sustainability Programs Manager, further highlighting the changed focus of the City.

**Re-framing Local Growth and Development Issues**

Much can be accomplished locally simply by reframing already important local issues in ways that highlight and strengthen their sustainability dimensions and potential. Groups like EcoCity Cleveland have used a variety of strategies to help recast or reframe issues there. For example, they issued an open letter to then-incoming mayor Jane Campbell that identified key sustainability issues and opportunities for the future that ought to be considered (see Beach, no date). They also created their **Building the Liveable Urban Edge (BLUE)** project along with the Cleveland Waterfront Coalition as a way of injecting green ideas into the lakefront planning process already being undertaken by the City. The fact that EcoCity staff members also serve on a number of city committees and advisory councils has been another avenue for strategic reframing (see, generally, http://www.ecocitycleveland.org).

Giving attention and visibility to local companies (including developers), individuals and groups working to improve the city and region is a potentially important and inexpensive additional way to reframe local conceptions of good practice or good work. Each year EcoCity Cleveland issues its **Bioregional Hero Awards** to recognize such groups and individuals. Reframing can also happen through demonstration projects, such as Chicago’s Green Roof Program discussed earlier. EcoCity Cleveland, as another example, has been spearheading the development of an urban ecovillage that should help both to change notions about green and affordable housing and to promote the promise and potential for green urban living in major cities.

Examples of reframing on a grander scale include efforts to promote new conceptions of ‘home’, ‘neighbourhood’, ‘city’ and ‘region’ that lead to an understanding of broader ecosystems and bioregions. EcoCity Cleveland has pushed along such new conceptions in some clever ways—by defining a new Cuyahoga Bioregion with the help of its members, for instance, and by publishing and widely circulating a beautiful bioregional map. There is much power in rethinking the boundaries of ‘place’.

**The Power of Diagnostics**

Many communities around the country have prepared sustainability indicators or benchmarks, a productive and relatively easy way to begin to energize a city and region to make a shift towards sustainability. Indicators can help focus community discussion around sustainability issues, motivating both citizens and elected officials to support a broader sustainability agenda. While many of the early indicator systems were prepared in cities like Seattle under the leadership and initiative of non-governmental groups like Sustainable Seattle, many ‘average’ local jurisdictions have now prepared them. The non-profit Sustainable Pittsburgh,
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for instance, has recently issued an impressive set of regional indicators (see Sustainable Pittsburgh, 2002). These indicators report on both traditional sustainability trends and measures, such as sprawl, energy efficiency, and consumption, and less traditional ones, such as the extent of social capital and measures of social equity. Choosing the actual metrics requires careful deliberation, to be sure, and important data may not be readily available for some indicators. However, even a relatively simple indicator system can be an important step towards a more comprehensive local sustainability agenda.

Pulling it Together in Columbus, Ohio

The six aforementioned approaches to instilling sustainability initiatives have found varied success through a service learning effort in Columbus, Ohio. A recent tourism advertising campaign in the city of Columbus shows images of busy coffee shops, local artwork, high-end restaurants and a vibrant nightlife. These images, more typically associated with cities such as New York or San Francisco, are accompanied by the caption ‘Surprise! It’s Columbus’. The surprise may be for many Columbus residents, who more typically think of their city of over 700,000 as a Midwestern ‘cow town’. Columbus is the state capital, the home of one of the largest universities in the country, and one of the 15 largest cities in the country, yet it is seen locally as a big small town that is surrounded by cornfields (Galipault, 1999). This image is belied by increasing sprawl, inadequate transit and other growth-related problems. Columbus serves as an interesting example of a city making a sustainability initiative effort, although it is in a state that has had little to no leadership for state-wide planning or sustainability-oriented initiatives.

The state of Ohio has been characterized as reflecting the country as a whole, at least as far as political balance and demographic concerns go (Lubin & Blount, 2006). The city of Columbus finds itself geographically, as well as politically, in the centre of the state. Columbus, like many other American cities, once had a vibrant mixed-use downtown surrounded by attractive residential areas. At the start of the twentieth century, Columbus residents of mixed income lived within an easy walk or streetcar or trolley ride to employment, shopping and recreation opportunities. The city was also a hub on the national railroad network (Columbus History, 2002). However, the strong demand for suburban-style developments and the rise of the automobile following the second World War forever changed the city’s land use pattern. Additionally, starting in the mid-1950s an aggressive annexation policy was used to ensure sound wastewater collection and treatment, to control new development and to protect growth corridors, as well as to capture economic development around the city’s borders (Sensenbrenner, 2000). This policy has been severely curtailed since the 2001 adoption of legislation making the practice more complicated. The annexation policy was also a primary reason for the population-land growth disparity evident between 1950 and 2000. In that time the population of Columbus almost doubled, from 375,901 to 711,470, and the city’s land area grew over five times (City of Columbus, 2000). While this annexation approach may not be typical of other cities across the country, the land use impacts that have resulted are more
common. The disparity between slow population growth and rapid land consumption has been fuel for sprawled development across the country (see e.g. Platt, 2004). Adding to the negative impact of this sprawled development pattern is that much of it has occurred on Ohio’s prime agricultural land (American Farmland Trust, 2002).

These and other elements of Columbus’s history highlight the unsustainable direction in which the city has been heading. Columbus is like many other cities across the country—it has not yet hit rock bottom, thus forcing a sustainability-focused response. It has enjoyed sufficient economic prosperity that unsustainable practices have not yet required urgent attention. Although not in an emergency situation, there are unsustainable activities that will turn into emergencies in the future. However, initiatives by various government departments as well as developers and activists give reason for optimism that there may be a more sustainable future for Columbus. There have been recent policy elements supportive of sustainability principles, such as a new traditional neighbourhood design zoning code and a 2005 Get Green initiative by the mayor to promote environmental issues in the city (see City of Columbus, 2005a, 2005b). Columbus has also utilized some of the practice tools highlighted by Cleveland and Chicago. However, an integrated approach using these tools has been promoted through a graduate-level planning class effort.

**Envisioning an EcoCity Columbus**

In the fall of 2001 a graduate planning class was offered on an ‘Introduction to Sustainable Development: Envisioning an EcoCity Columbus’. The class was structured in a service learning format in which students would perform base level analyses, form recommendations and coordinate with a steering committee. While it was in some ways a demonstration or pilot effort, given the limitations associated with a 10-week course, it was also a coordinated attempt to provide a more holistic response to sustainability issues and to set the stage for forming alliances, finding the ‘low-hanging fruit’ opportunities, and providing some diagnostic analysis through student work.

The service learning literature has been almost exclusively focused on its benefits to students (Cruz & Giles, 2000; Bellig, 2003). Of interest for this work, however, was how such an approach could benefit a community working towards a more sustainable future. Research focusing on community outcomes is problematic for a variety of reasons, including challenges in defining the community and controlling for confounding variables. However, there have been a number of key findings identified by Cruz and Giles (2000) that support the potential contribution of service learning as a vehicle to jump start a community sustainability initiative. Service learning initiatives contribute to community development both through provision of research data and by strengthening networks among community agencies. Service learning provides free labour and budgetary savings as it furthers community goals (p. 30). In this case, the service learning structure provided an opportunity for an integrated approach to planning for sustainable development outside the limitations of departmental boundaries. The class could transcend practical constraints of schedule demands in order to
explore innovative approaches to sustainable development and interdepartmental coordination on specific practice recommendations.

Students in the class investigated basic but essential components of what could make Columbus, Ohio an EcoCity. Their investigation included an examination of historical, current, and planned projects and practices. Student teams focused their analyses on one of four key areas: Land Use and Urban Form, Transportation and Mobility, Energy and CO₂ Reduction and Urban Ecology. Social and economic considerations inherent to the overall sustainability concept were integrated into each of the four areas.

The class also had an associated 12-person steering committee that included city planners, city public utilities representatives, politicians, developers and environmental activists. Steering committee members, who represented existing and possible alliances in moving towards a sustainable future, served both as information resources for students and as their end client. The class submitted their final project report to the steering committee as action agendas that addressed identified problems and offered recommendations that committee members would have some power to enact either separately or in conjunction with others. A summary of report findings and recommendations is provided in Table 1.

**The Workshop**

A public workshop was held at the end of the term to present class findings and recommendations to both the steering committee and citizens of Columbus. The intent of the workshop was to gain buy in and feedback from the public and to help spur a more coordinated sustainability effort by the City. The workshop consisted of group presentations and break-out sessions during which each of the four groups discussed their recommendations and made suggestions. The day wrapped

| Table 1. Summary of EcoCity Columbus report findings and recommendations |
|--------------------------|--------------------------|--------------------------|--------------------------|
| **Group**                | **Problems**             | **Current initiatives**  | **Recommendations**      |
| Land use                 | Vacant land              | TND code                 | Strengthen new codes     |
|                         | Standard zoning code     | UCO code                 | Enhance financial incentives |
|                         | Taxation policy          |                          | Regional tax sharing     |
|                         |                          |                          | Urban growth boundary    |
| Transportation          | Automobile dependence    | Pretax payments          | Revise parking policy    |
|                         | Underutilized transit    | Student passes           | Decrease automobile subsidies |
|                         |                          | Light rail plans         | Decrease roadway subsidies |
|                         |                          |                          | Increase funds to alternative modes |
| Energy                  | Consumption habits       |                          | Urban forest reserve     |
|                         | Carbon footprint         |                          | Photovoltaics            |
|                         |                          |                          | Biomass energy           |
| Urban ecology           | Buried/culverted streams |                          | Daylighting              |
|                         | Invasive species         |                          | Natural landscaping      |
|                         | Landscape maintenance    |                          | Green roofs              |

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up with a summary of break-out session findings and a discussion of next steps. Attendees gave feedback in the form of a survey covering presentation topics, respondent concerns and respondent suggestions.

Findings from the survey highlight current concerns and anticipated directions related to sustainability in Columbus. This effort not only provided insight into existing city image, but also helped collectively prioritize ‘low-hanging fruit’ opportunities. Participants were asked to select three of the most pressing issues facing Columbus (see Table 2). Twenty-seven of the 38 respondents selected urban sprawl, 24 selected public transportation and other alternative modes of travel, and 11 selected the availability of green space. Sprawl and inadequate transportation alternatives are daily reminders of unsustainable aspects of the city, which likely explains their priority among the workshop participants.

Participants were also asked to identify which of the recommendations held the most promise for Columbus (Table 3). Land use group proposals that avoided greenfield development and enhancing the public transit alternatives in Columbus topped the list. Green buildings and green power were also considered to be of great promise for the city. These proposals targeted the responsibility of government as well as individuals, although the changes suggested were much less dramatic than the very public, Mayor-led efforts seen in Chicago. The ideas of the class would perhaps encounter little resistance from city government as they don’t necessarily require a major change in operations or procedures.

It was important that the EcoCity Columbus effort did not to become an isolated classroom exercise. Therefore, participants were asked to identify important next steps in advancing the concept in Columbus (Table 4). The formation of a citizens’

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<th>Problem</th>
<th>Responses</th>
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<tr>
<td>Urban sprawl</td>
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</tr>
<tr>
<td>Public transit &amp; alternative transportation</td>
<td>24</td>
</tr>
<tr>
<td>Trees, parks, &amp; green space</td>
<td>11</td>
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$N = 38.$

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<tr>
<th>Group</th>
<th>Proposal</th>
<th>Responses</th>
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<tbody>
<tr>
<td>Land use</td>
<td>Infill housing</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Financial and tax incentives for redevelopment</td>
<td>27</td>
</tr>
<tr>
<td>Transportation</td>
<td>Improved/expanded public transit</td>
<td>32</td>
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<td></td>
<td>Intercity rail service</td>
<td>26</td>
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<tr>
<td>Energy</td>
<td>Green power purchasing policy</td>
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<tr>
<td>Urban ecology</td>
<td>LEED® Green Building Rating System</td>
<td>30</td>
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<td></td>
<td>Expanded tree planting</td>
<td>24</td>
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$N = 38.$
advocacy group to promote the concept was the most frequently selected step, along with the preparation of a ‘state of the city’ report for updated information on the city’s progress, or lack thereof, towards a more sustainable future. The advocacy group, like the class, would operate under an integrative mandate.

An Idea Takes Shape

While many well-intentioned meetings fail to produce subsequent action, the EcoCity Columbus effort has had a direct bearing on a public effort to promote sustainability issues on a regional level. 1000 Friends of Central Ohio (1KCO) has been organized based on the intersection of the EcoCity Columbus effort and a regional planning strategy effort proposed by the Mid-Ohio Regional Planning Commission (MORPC). The organization, like the class, has the ability to transcend departmental and agency boundaries by uniting principal players who are working towards sustainability in Columbus under an umbrella of research and advocacy.

1KCO was created as a non-profit group with a five-point mission: supporting a regional vision for Central Ohio; promoting compact, liveable communities with housing, employment and transportation choices and accessible green spaces; conserving Central Ohio’s productive farm and forest lands; protecting natural resources and scenic areas; and defending opportunities for citizens of Central Ohio to participate in the decisions affecting their communities and their future. Including the regional vision as part of the mission statement was important to help coordinate public input and to support the regional growth strategy effort by MORPC.

The goal of the organization is to become a collective and coordinated voice for sustainable development through educational activities and political activism. While educational and promotional activities are meant to bring sustainability concepts to the fore among citizens and government officials’ agendas, the organization’s strategy is focused on long-term administrative change to alter decision-making processes and patterns of growth in Central Ohio. Therefore, it has been less immediately noteworthy than, for example, Mayor Daley’s green roof activities in Chicago. As a result, support and excitement for the organization and its work have been slow to build.

Table 4. Important next steps to advance an EcoCity Columbus

<table>
<thead>
<tr>
<th>Next step</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form a citizens’ advocacy group</td>
<td>26</td>
</tr>
<tr>
<td>Apply for a grant to support further EcoCity ideas</td>
<td>23</td>
</tr>
<tr>
<td>Prepare a ‘State of the City’ report</td>
<td>23</td>
</tr>
<tr>
<td>Develop a set of EcoCity indicators</td>
<td>20</td>
</tr>
<tr>
<td>Prepare an EcoCity charter for adoption by Council</td>
<td>18</td>
</tr>
<tr>
<td>Convene a yearly EcoCity conference</td>
<td>17</td>
</tr>
<tr>
<td>Hold technical workshop on presented proposals</td>
<td>15</td>
</tr>
<tr>
<td>Conduct further analysis on EcoCity problems/issues</td>
<td>14</td>
</tr>
</tbody>
</table>

N = 38.
Leading by Example

Local governments often have more immediate power to affect positive sustainability goals than they imagine. They clearly do many things as a matter of regular business that can, with relatively modest effort, be steered or redirected in support of sustainability goals. Examples include managing parks and recreational areas in more ecological and sustainable ways, retrofitting existing public buildings to use less energy and fewer resources, and instituting creative employee mobility plans and mobility options (e.g. providing a bicycle for an employee interested in having one). Environmental procurement programmes are now common, and the potential for local governments to shape and guide the marketplace through their direct purchasing decisions is great. Organizations like the Center for the New American Dream and the International Council for Local Environmental Initiatives (ICLEI) have green procurement programmes that can help interested localities.

An integrative approach to implementing sustainability presents a larger challenge for many local governments. One way to jump start such a holistic approach is through coordination with a service learning offering at a local planning school. This has been the case in Columbus with OSU, as well as in Grantsville, Utah with their city sustainability plan from the University of Utah (Berke & Conroy, 2000). Service learning classes usually allow students time for historical review and similar activities that most full-time planning personnel do not have. The coordination of student research with planners’ investigation needs holds great potential for a mutually beneficial situation, as students gain valuable experience and cities gain detailed analyses. Students are also able to work outside of the confines of political ramifications and budgetary constraints when formulating creative recommendations. This is not to say that the student recommendations are not realistic, but rather that their recommendations may be less traditional than those of full-time planning personnel.

However, the challenges faced by this approach are many. As noted previously, efforts by students that are provided essentially without charge are at risk of being discounted and ignored as useful studies. Furthermore, a university class setting that meets regularly for only one quarter of each year results in significant time lapses between investigation opportunities. During the time when a class is not in session, the effort may fade from the city’s or steering committee’s agendas. Additionally, it may become difficult to retain a consistent and progressive investigation when there is a wholesale change in students from year to year. An organization such as 1KCO may sustain efforts during those times of the year when classes are not offered.

Local governments can also exert substantial power and influence in doing the many things that they already do in more sustainable ways. Many local governments have now begun to purchase green power, and here, as well, Midwest jurisdictions like Chicago have been leading the way. Under Chicago’s new energy plan the city has committed to purchasing at least 20% of its municipal energy (i.e. energy needed for schools, street lights, city buildings) from green and renewable sources. Decisions like this represent important symbolic statements of commitment to renewable energy, and sustainability more generally, and they have the potential to shape private decisions and the actions of citizens, companies
and other organizations in a city. Whether establishing an integrative sustainability initiative or taking advantage of incremental sustainability changes, there is much power in leading by example.

The actions in Columbus, Chicago and Cleveland highlight different paths that have been taken towards a sustainability goal. These paths illustrate the divergence in the literature on how best to implement sustainability: piecemeal versus integrative. Integrative approaches may be more appealing theoretically, but it appears that small steps towards sustainability may lead to more integrated efforts. This review, while limited, highlights that in the given US political climate, a piecemeal approach emphasizing pilot programmes, partnerships and simple (‘low-hanging fruit’) activities can provide a foundation of successes upon which to build a positive and sustainable city image. Leadership, be it political or otherwise, is an obvious advantage, as are funding and timing (e.g. Chicago’s settlement funds). The critical outcome is a change in a city’s own conceptualization of how to change from status quo to sustainable development.

Notes

1. According to the US Census, a place is ‘A concentration of population either legally bounded as an incorporated place, or identified as a Census Designated Place (CDP)…Incorporated places have legal descriptions of borough (except in Alaska and New York), city, town (except in New England, New York, and Wisconsin), or village’ (http://factfinder.census.gov/home/en/epss/glossary_p.html).

2. ‘Service learning is a pedagogical technique by which a student completes the objectives of a course while fulfilling a community need in a coordinated effort between the school and client’ (Talbert et al., 2003, p. 211).

References

City of Columbus (2005a) Traditional Neighborhood Development, Chapter 3320 (Columbus, OH, City of Columbus). Available at: http://assets.columbus.gov/development/planning/TNDChapt3320.pdf
City of Columbus (2005b) Get Green Columbus 2005 (Columbus, OH, City of Columbus). Available at: http://home.columbus.gov/Asset/iu_files/GetGreen.pdf

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Sensenbrenner, R. (2000) New Directions for Growth, Talk given to Columbus Metropolitan Club, 29 Nov.


