ARTICLE

Green local governments in Florida: assessment of sustainability performance

Naimish Upadhyay & Robert Brinkmann
Department of Geography, University of South Florida, 4202 E. Fowler Avenue, NES 107, Tampa, FL 33620 USA (email: nupadhya@mail.usf.edu; rbrinkmn@usf.edu)

The sustainability performance of local governments that adopted the Florida Green Building Coalition’s Green Local Government standard was evaluated using a web-based review and survey of 26 local governments within the context of the Three Es of environment, equity, and economic development. The results indicate that while many local governments exhibit a broad commitment to sustainability as evidenced by the inclusion of sustainability in formal documents, such efforts are not present across all government functions or departments. In addition, while local issues are often addressed, interrelated sustainability goals of equity and economic development are not clearly articulated. Most local governments in the state instead tend to focus on environmental protection through initiatives such as storm-water management improvements. Nevertheless, the use of specific benchmarking tools by Florida governments can serve as a model for other states.

KEYWORDS: environmental equity, sustainable development, local politics, state government agencies, benchmarks, environmental protection, socioeconomic aspects

Introduction

With diminishing natural resources, degrading environmental quality, and warming of the Earth’s atmosphere, there is growing awareness of sustainable development (Rogers, 1998; Egger, 2006; Gutman, 2007). Although many of these environmental problems are global, planners and policy makers have in recent years realized the importance of local jurisdictions and promoted sustainable development in urban communities (Prugh et al. 2000; Saha & Paterson, 2008). This new paradigm of addressing global environmental challenges by taking concrete action at the local level is aptly depicted in the aphorism “think global, act local” proposed at the 1972 United Nations Conference on the Human Environment.

In the move to local green governance, the American state of Florida has witnessed several new developments, including the creation of the Florida Green Building Coalition’s (FGBC) Green Local Government (GLG) standard. This article reports on a study of the sustainability initiatives of city and county governments in Florida that have adopted this measure. The working definition of sustainability adopted in this research includes the triple notion (or Three Es) of environmental protection, equity, and economic development that has been widely adopted in the sustainability literature (Jepson, 2004; Saha & Paterson, 2008). Specifically, this article attempts to answer the following research questions pertaining to local sustainability planning: 1) Are Florida GLGs demonstrating sustainable development as an overarching development framework? 2) To what extent do the certified GLGs fulfill the criteria of the FGBC standard? and 3) Do the sustainability initiatives adopted by the GLGs integrate the Three Es of sustainable development? This research is potentially significant due to the emphasis in the United States, with its overall lack of federal coordination, on local sustainability. It is the coordination and benchmarking of localized sustainability information that will create a strong foundation for local, state, and national sustainability programs.

We begin with a brief discussion of the concept of sustainable development and a review of relevant threads of the local sustainability planning literature. The article next describes FGBC’s GLC standard. This section is followed by an outline of the methodology that we employed and our key findings. We conclude by summarizing how the findings answer each of our three research questions.

Sustainability Planning by Local Government

The modern sustainability movement is often traced to the work of the Brundtland Commission and its 1987 report, Our Common Future, that outlined an international approach to sustainable development. The authors famously defined sustainability as
“development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987) and this formulation has remained for more than two decades at the forefront of public policy discussions in many parts of the world. The report focuses in detail on the Three Es of sustainability. This broadened understanding of sustainability that includes social and economic developmental aspects however has not been matched with robust and consistent federal policy initiatives in the United States, in part because of the changing priorities of the executive branch of government. However, there has been a great deal of action at the state and local levels, particularly in urban settings (Krizek & Power, 1996; Betsill, 2001; Conroy, 2006). Although high-density urban areas tend to have smaller ecological footprints due to their compact design, contemporary cities (especially in the United States) have been associated with unsustainable growth, sprawl, inequitable development, resource depletion, and environmental pollution (Rogers, 1998; Egger, 2006; Eaton et al. 2007; Gutman, 2007). However, some policy makers are now realizing the importance of cities in advancing sustainability goals (Campbell, 1996; Prugh et al. 2000; Saha & Paterson, 2008). In fact, numerous local governments around the world have begun to adopt policies and programs to protect the natural environment and to ensure their residents a sustainable quality of life (Krizek & Power, 1996; Maclaren, 1996; Betsill, 2001; Conroy, 2006).

The concept of sustainable development began to be integrated into policy making and planning in the United States during the years following the country’s participation in the 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro. Between 1993 and 2000, the federal government focused on sustainability issues that helped state and local governments, as well as non-governmental organizations (NGOs), address local and regional sustainability concerns (Chifos, 2007). The Clinton Administration’s creation in 1993 of the short-lived President’s Council on Sustainable Development (PCSD) was a notable effort to coordinate sustainable development at the federal level. The PCSD was entrusted with developing national sustainability goals through innovative economic, environmental, and social policies and strategies. Unfortunately, the council was terminated by the subsequent Bush administration.

There is currently no single federal “office of sustainability” and most efforts are managed or funded by different government agencies, such as the Environmental Protection Agency, the Council on Environmental Quality, and so forth. Under such circumstances, the federal approach to sustainability in the United States involves a variety of efforts without strong coordination or rulemaking. At the same time, grassroots enthusiasm for sustainable development has encouraged planners and academicians to emphasize sustainability within research and local and regional planning (Wheeler, 2000; Chifos, 2007). This mix of research, planning, and activism, influenced by an inconsistent federal government, has created a range of policy changes that have affected how state and local governments conduct themselves.

Warner (2002) conducted a web-based study of the 35 largest cities in the United States that examined how local sustainability efforts in these communities address issues pertaining to environmental justice and found that only five communities built this issue into their local definition of sustainability. A more detailed research project by Jepson (2004), examined 39 policy criteria that comprehensively contribute to sustainability for 390 American cities. This study revealed that most cities in the United States appear to adopt sustainable development not as part of overall community planning, but rather select certain policies in a piecemeal fashion. This finding is supported more recently by Saha & Peterson’s (2008) study of 216 medium-to-large cities in the United States using 36 indicators designed to assess sustainability performance. Rather than include sustainability principles in their overall developmental framework, most cities have adopted individual policies for other reasons ranging from cost effectiveness to political expediency. The other major factor affecting local performance appears to be the bureaucratic structure of local governments wherein administration is typically divided into specialized departments with narrow mandates and little or no interaction.

In a study of 75 cities that participated in the Cities for Climate Protection campaign sponsored by the International Council for Local Environmental Initiatives (ICLEI), Betsill (2001) found that sustainability goals are not necessarily the driving force behind changes, but are instead co-benefits of other objectives such as managing budget reductions or enhancing mass transit. It is evident that sustainability and climate change provide the driving impetus for many of these efforts, but they are often motivated by the pursuit of practical goals.

These national surveys indicate the need to develop comprehensive local responses to sustainable development concerns. However, due to their broad national approach, these prior studies do not highlight regional or local differences. While they reflect the general ways communities are incorporating sustainability into their planning process, they fail to account for regional differences in geopolitical, cultural, climatic, and other factors that either directly or
indirectly influence how a particular city deals with climate change and incorporates sustainable development into governance procedures.

While there are well-established ways of measuring performance in other environmental areas such as water quality, standards for measuring the sustainability of cities are only now emerging. The recent development of voluntary and nongovernmental “green” standards, and the growing interest of communities in adopting these measures to fashion their sustainability plans, remains largely undocumented. This article assesses the impacts of enrolling in one of these local evaluation tools—the FGBC’s GLG standard—and reports the results of a survey and web archival research carried out during January, 2009.

The FGBC’s GLG Standard

The FGBC is a NGO that has developed technical standards for a variety of environmentally-responsible practices with an aim of providing independent third-party verification for projects in Florida (FGBC, 2008a).1 The portfolio developed by FGBC consists of five separate standards targeting green buildings, green development, and GLGs.

The GLG standard is conferred upon local governments that conform to a standardized checklist (“Application Tool”) of 230 environmental initiatives across a broad range of criteria. These criteria are organized in terms of nineteen local government-department functions (see Table 1). Apart from departments with more definable environmental responsibilities, such as Building and Development, Energy Utility, and Solid Waste, the checklist also includes several lesser intuitive categories of criteria. For example, under the Property Appraiser/Tax Collector category, points are awarded for the inclusion of environmental certifications and green features of buildings within the public database, as well as for provisions of tax incentives to green development projects. Similarly, under the School Board category, points are awarded to a municipality if local schools implement solid waste reduction, energy monitoring, and recycling programs.

While the overall focus of the GLG standard is to improve the environmental performance of participating local governments, the FGBC does not specifically identify any associated economic or equity/social outcomes. Each criterion in the checklist is assigned a point value and local governments that accumulate a sufficient number to meet a minimum total point value are certified as GLGs (FGBC, 2008b). The certification follows a self-reporting system in which each municipality assesses the environmental performance of its own governmental functions and reports it to FGBC.

The primary objective of the standard is to help local governments improve their environmental performance. However, given the current understanding of sustainability as also encompassing the concepts of economic sustainability and equity, this study attempts to evaluate whether the environmental initiatives undertaken by the certified GLGs within the FGBC framework show any cobenefits in these other two domains.

This article extends the body of local sustainability planning literature in two significant ways. First, this research represents the first attempt to review the sustainability commitment and performance of Florida communities that have adopted the framework of FGBC’s GLG standard. The fact that a large number of cities and counties in the state are voluntarily

| Department                  | Average Percent Credit Points Earned |
|-----------------------------|--------------------------------------|
| Water & Wastewater          | 73                                   |
| Solid Waste                 | 62                                   |
| Public Works & Engineering  | 53                                   |
| Energy Utility              | 52                                   |
| Planning & Zoning           | 52                                   |
| Ports & Marinas             | 52                                   |
| Information Services        | 51                                   |
| Natural Resources Management| 50                                   |
| Parks & Recreation          | 49                                   |
| Housing & Human Services    | 43                                   |
| Human Resources             | 43                                   |
| Administration              | 42                                   |
| Public Transportation       | 42                                   |
| Energy Management & Public Safety | 36                   |
| Agriculture & Extension     | 30                                   |
| Building & Development      | 30                                   |
| Economic Development & Tourism | 30                      |
| Property Appraiser & Tax Collector | 17                  |
| School Board                | 15                                   |

Source: FGBC, 2008b.

1 The FGBC is a nonprofit 501(c)3 Florida corporation with a mission to “lead and promote sustainability with environmental, economic, and social benefits through regional education and certification programs” (FGBC, 2008b). It is a membership-based organization governed by a board of directors and corporate officers who are elected by the general membership. FGBC members include builders, developers, architects, land planners, realtors, landscape architects, product manufacturers, energy raters, ecologists, educators, university staff, and representatives of government agencies.

2 According to the procedure established by FGBC, a local government is required to submit all application documents to FGBC after it completes an evaluation and believes it has met the minimum requirements of the GLG standard. The documentation is reviewed by an FGBC-assigned evaluator before the designation is awarded.
adapting this standard to demonstrate their commitment to environmental protection makes it important to assess whether this designation also leads to improvements in other areas of sustainability. We make this evaluation in terms of the overall commitment, as well as by assessing the performance of the local governments from the standpoint of the FGBC framework. Consistent with several recent studies (e.g., Saha & Paterson, 2008), sustainable development is considered to include not only environmental protection, but also the related goals of equity and economic development. It is through local application that the performative dimensions of global standards are put into practice. In addition, by limiting the sample of reviewed localities to Florida, this study develops a region-specific body of sustainability related information that can contribute to the identification of political, economic and other regional factors not typically discernible in national sustainability surveys of cities.

Methodology

Since the objective of this research project was to evaluate the sustainability performance of local governments that have adopted the FGBC’s GLG standard, the study sample was limited to Florida communities that had declared intent to pursue certification at the time this work began (January, 2009). Figure 1 shows the timeline of GLG applications made by and certifications awarded to participating Florida local governments (both cities and counties).

A review of the FGBC website revealed that a total of 26 local governments, consisting of twenty municipalities (incorporated towns and cities) and six counties, had publicly stated their intention to achieve the GLG designation at the time of this research. While ten jurisdictions (six municipalities and four counties) had received certification, sixteen others were in various stages of the certification process (Table 2). Table 3 displays the names and relevant demographic data for all 26 communities. Aggregate population across the twenty municipalities comprises about 11% of Florida’s total population and about 22% of the population living in the state’s incorporated areas. Similarly, the six counties surveyed constitute a little over 16% of the state’s total population (all population figures based on the 2000 Census).

The research methodology consisted of three distinct steps—an analysis of the websites of all 26 local governments, a survey of sustainability officials of all 26 jurisdictions, and a review of completed GLG certification documents of the ten certified local governments. Each of these steps is described in greater detail below.

To determine the commitment to sustainability, a review of the local government websites of each of the 26 communities was completed, including hypertext (i.e., html) and Portable Document Format (i.e., pdf) documents. We did not review videos or other media. All 26 websites were assessed systematically and thoroughly by first checking the webpages of administrative departments and offices that were believed to handle sustainability planning issues and then by using the search function within each website (where available) to locate any references to the words “sustainable development” and “sustainability.” The primary purpose of this exercise was to identify the existence of specific sustainable development initiatives or sustainability planning documents. Several recent studies have adopted web-based archival research methods to study local sustainability efforts. For example, Warner (2002) reviews the sustainability programs in 33 of the largest American cities to determine those that address envi-

---

3 In the United States, an “incorporated area” refers to a municipal corporation, a city or town with its own local government. An “unincorporated area,” by contrast, generally connotes a part of a county outside of a municipal jurisdiction.
Environmental justice issues through a content analysis of information available on the Internet. While this analysis was not expected to provide a comprehensive picture of local sustainability planning, the information collected through this procedure augmented the survey data. It also gave us a general idea of the importance cities and counties attach to their sustainability initiatives by way of publicizing such information through their websites.

In addition to the web search, we employed a survey to elicit information about sustainable development efforts in all 26 jurisdictions. The purpose was to record the existence of local sustainability planning policies or documents, as well as to gather information on the economic and equity aspects of local sustainable development initiatives. The survey was intended to supplement the web review described above and the information so obtained was expected to be more recent and updated than that found on the Internet. The survey was comprised of two questions:

**Question 1:** Does your City/County have a formally adopted Sustainability Strategic Plan, Mission/Vision Statement or a similar policy document outlining the aims, objectives and key strategies pertaining to sustainability? If possible, please submit an electronic copy of all such documents.

**Question 2:** Sustainable development is often defined to include the three dimensions of environment, economy, and equity. Which of the 230 criteria listed in FGBC’s Green Local Government Standard do you believe address the economic and equity/societal aspects of sustainable development? Enlist specific initiatives you have undertaken that address these two aspects.

While the first question was aimed at recording the presence of any policy documents pertaining to a local commitment to sustainable development, the second was used to identify the FGBC criteria that the surveyed local governments considered to address the socioeconomic aspects of sustainable development.

The survey was sent to all 26 cities and counties through e-mail, accompanied by a cover letter outlining its purpose. The communication was directed to the administrative head of each local government.

### Table 3 Florida local governments surveyed.

| Community Name      | Local Government Type | Population (Census 2000) | Population Estimate (July, 2007) | Population Density (per sq mile) (Census 2000) |
|---------------------|-----------------------|--------------------------|---------------------------------|-----------------------------------------------|
| Belleair            | Town                  | 4,067                    | 4,102                           | 2,265.8                                        |
| Davie               | Town                  | 75,720                   | 90,329                          | 2,265.2                                        |
| DeLand              | City                  | 20,904                   | 26,883                          | 1,317.1                                        |
| Dunedin             | City                  | 35,691                   | 36,285                          | 3,438.1                                        |
| Gainesville         | City                  | 95,447                   | 114,375                         | 1,981.0                                        |
| Hollywood           | City                  | 139,357                  | 142,473                         | 5,097.2                                        |
| Largo               | City                  | 69,371                   | 73,298                          | 4,429.1                                        |
| Miami Gardens       | City                  | 100,515                  | 97,286                          | 6,673.3                                        |
| North Miami         | City                  | 59,880                   | 56,185                          | 7,080.0                                        |
| North Port          | City                  | 22,797                   | 54,308                          | 304.9                                          |
| Orlando             | City                  | 185,951                  | 227,907                         | 1,988.9                                        |
| Palm Bay            | City                  | 79,413                   | 100,116                         | 1,247.7                                        |
| Plantation          | City                  | 82,934                   | 84,370                          | 3,815.2                                        |
| Sarasota            | City                  | 52,715                   | 52,488                          | 3,539.8                                        |
| St. Petersburg      | City                  | 248,232                  | 246,407                         | 4,163.1                                        |
| Tallahassee         | City                  | 150,624                  | 168,979                         | 1,573.8                                        |
| Tamarac             | City                  | 55,588                   | 59,668                          | 4,879.8                                        |
| Tampa               | City                  | 303,447                  | 336,823                         | 2,707.8                                        |
| Tarpon Springs      | City                  | 21,003                   | 23,544                          | 2,297.1                                        |
| Winter Park         | City                  | 24,090                   | 27,947                          | 3,281.6                                        |
| Indian River        | County                | 112,947                  | 131,446                         | 224.4                                          |
| Martin              | County                | 126,731                  | 138,790                         | 228.1                                          |
| Orange              | County                | 896,344                  | 1,063,979                       | 987.8                                          |
| Pinellas            | County                | 921,482                  | 914,444                         | 3,292.0                                        |
| Sarasota            | County                | 325,957                  | 370,871                         | 570.3                                          |
| St. Lucie           | County                | 192,695                  | 260,090                         | 336.6                                          |
Table 4 Endorsement of sustainable development as a goal or priority.

| Sustainability as a goal or priority in local government’s public agenda | Yes, formally | Yes, informally | Not Adopted/ Not Found |
|------------------------------------------------------------------------|--------------|----------------|------------------------|
| All local governments reviewed (n=26)                                  | 14 (54%)     | 4 (15%)        | 8 (31%)                |
| Only municipalities (n=20)                                             | 9 (45%)      | 4 (20%)        | 7 (35%)                |
| Only counties (n=6)                                                    | 5 (83%)      | 0              | 1 (17%)                |

Commitment to Sustainability Beyond Adoption of Specific Initiatives

This study adopts the classification system developed by Saha & Paterson (2008) to determine whether a community has “formally” or “informally” established sustainable development as a goal or priority. The commitment to sustainable development was considered “formal” if the local government was found to have adopted a specific ordinance, mission, or vision statement; a strategic plan; or a similar policy. However, if a local government had shown interest in sustainable development, but had not yet codified its intent in a specific policy document, the commitment was considered “informal.” The presence of specific policy documents pertaining to local sustainable development planning was recorded through the web review and the survey responses. About 70% (18 out of 26) of the municipal and county websites reviewed were found to have web pages dedicated to sustainable development information (see Table 4). The websites of the larger jurisdictions (i.e., the six counties and the cities of Tampa, St. Petersburg, and Orlando) had more substantive information pertaining to their sustainability initiatives compared to those of smaller cities and towns. A majority of these local governments had chosen the formal route of endorsing sustainability which meant they had a sustainability policy in place to guide their decision-making process.

Whereas the strategic plans of the larger cities often focused on the complex issues of managing urban expansion and providing services to their rapidly increasing populations, those of smaller communities were limited to nature preservation, local community identity, and economic development aspirations. As expected, the specific issues covered within individual sustainability commitments varied widely, reflecting local priorities; however, all localities made reference to the common themes of environmental, social, and economic concerns.

Another way to ascertain local government commitment to sustainability is to identify the existence of a separate office of sustainability, or at the least the presence of staff assigned responsibility of carrying out sustainability activities (Saha & Paterson, 2008). Table 5 shows that only 12% of the local government websites that we reviewed were found to have either a dedicated office of sustainability or a specific department formally in charge of sustainability activities. For example, the Office of Sustainability in both Miami-Dade and Sarasota Counties, as well as the Office of Planning, Zoning, and Economic Development in the City of Plantation, were exclusively responsible for carrying out the sustainability initiatives of the respective local governments.

About 42% of all local government websites identified individual(s) assigned with implementing sustainability policies. Some examples of individual sustainability positions are “sustainability coordina-
Since the time of this research, there has been a marked increase in the number of Florida cities and counties that have applied for the GLG standard. As of June 1, 2010, a total of twenty local governments were certified and 28 others were undergoing the certification process (http://www.floridagreenbuilding.org/files/1/File/Certified_Governments.pdf).

Table 5 Presence of office or individual(s) responsible for sustainable development.

| Office or individual(s) responsible for sustainable development | Office | No Office but Individual(s) | No Office or Personnel |
|---------------------------------------------------------------|--------|-----------------------------|------------------------|
| All local governments reviewed (n=26)                         | 3 (12%)| 11 (42%)                    | 12 (46%)               |
| Only municipalities (n=20)                                     | 1 (5%) | 6 (30%)                     | 13 (65%)               |
| Only counties (n=6)                                           | 2 (33%)| 4 (67%)                     | 0                      |

Environmental Performance within the GLG Framework

The cities and counties were also assessed on their performance within the framework of GLG standards, both in terms of the extent to which environmental criteria were met and the distribution of efforts across a range of government departmental functions. A review of the FGBC website showed that out of the 26 Florida local governments that had expressed intent to adopt the GLG standard, only ten communities had completed the certification process and officially received the title at the time of this study (see Table 2). Six of these certified local governments were cities, and the other four were counties. We requested that all 26 local governments that had achieved (or were pursuing) the GLG designation provide us with an electronic copy of the Application Tool if they had already completed and submitted it to FGBC. This document contains a checklist of criteria or credit points across nineteen government departments, maximum numbers of points available, and the actual number of credits achieved by the local government undergoing certification. Out of the ten local governments that had completed the entire certification process (including the Application Tool document), for reasons inexplicable to us, only five of them provided us with this document.

A review of the Application Tool documents submitted by the five certified local governments showed that they had collectively undertaken initiatives across a wide range of government functions such as solid waste and energy utility (see Table 1). The fact that many of these initiatives were cross-departmental initially appears to validate FGBC’s claim that the standard promotes intragovernmental communication, which in turn leads to better coordination and enhanced administrative efficiency.

However, closer scrutiny reveals that not all government functions have been equally addressed. This finding is reflected by the uneven distribution of points earned across the nineteen categories in Table 1. It is evident that the five cities and counties collectively focused more on some departmental functions and neglected others, reflecting areas of over- and underactivity pertaining to sustainability. Some of the high scoring departments were Water and Wastewater and Solid Waste, whereas Property Appraiser/Tax Collector and School Board were among the lowest scoring. While our research did not investigate or hypothesize about possible causes of this disparity, the variation may be because the initiatives that scored higher credit points had already existed as part of traditional planning practices and it was thus easy to reinvent them in the new sustainability framework. The activities carried out successfully had been the most feasible both technologically and financially and policies and programs targeting issues that found the most public support and/or political will were adopted at the onset.

It is moreover important to keep in mind that a higher numerical score does not necessarily translate into a superior environmental or sustainability performance; after all, it is difficult to put comparable numeric values on individual sustainability activities. Our assumption, however, is that a more homogenous distribution of credits earned across departments indicates more thoroughgoing efforts to address the environmental, economic, and social impacts of a local government’s gamut of functions and services, resulting in more balanced and comprehensive sustainability planning.

5 The GLG certification program attaches uniform numerical scores to activities with differing environmental values (that are arguably difficult to quantify and/or compare). Some experts argue that the correlation is much more complex. As a result, even though a “spreadsheet” approach to green certification has some value in broadly assessing environmental performance, one should keep in mind the limitations posed by numerically ranking environmental values.
Addressing the Three Es of Sustainability

Planning for sustainable development is increasingly seen as encompassing not only environmental protection, but also includes closely related economic and social principles. According to FGBC, the major goal of the GLG standard is to help local governments improve their environmental performance and it does not claim to promote the other two goals. However, given the current understanding of sustainability, this study evaluated whether the initiatives undertaken within the FGBC framework also address the economic and social aspects.

The governments were surveyed to identify any criteria regarded as relevant to the economic and social dimensions of sustainability. The survey responses were collated to create two lists of certification criteria that the respondents collectively identified as addressing these aspects of local sustainability planning (see Tables 6 and 7). The Application Tool documents received from the five certified jurisdictions were also evaluated to assess the extent to which they evinced the criteria in these two lists. These five local governments met an average of about 16% of the economic criteria and about 50% of the social criteria.

Table 6  GLG standard criteria pertaining to economic aspects of sustainable development.

| Offer an incentive(s) to create organic farms or sustainable/water efficient agriculture. |
| Offer an incentive(s) for FGBC or Leadership in Energy and Environmental Design (LEED) certified commercial and institutional buildings. |
| Offer an incentive(s) for FGBC or Energy Star certified green homes. |
| Offer an incentive(s) for FGBC certified green developments. |
| Offer an incentive(s) for local professionals to attend green building classes offered by others. |
| Conduct a green building awards program. |
| Offer an incentive(s) for location of green businesses within city/county. |
| Offer special promotion for local eco-hotels. |
| Offer an incentive(s) for green redevelopment. |
| Offer an incentive(s) for disaster mitigation. |
| Offer an incentive(s) for distributed generation. |
| Offer an incentive(s) for commercial building. |
| Offer an incentive(s) for construction of green affordable housing. |
| Offer an incentive(s) for location-efficient affordable housing. |
| Offer an incentive(s) for local tax based or other alternative fuel vehicles. |
| Offer an incentive(s) for low pollution engines. |
| Offer an incentive(s) for certified green properties. |
| Offer an incentive(s) for lands qualifying as historic, high water recharge, greenbelt, and so forth. |
| Offer an incentive(s) for local businesses that utilize environmentally preferable purchasing (EPP) or other solid waste reduction strategies. |

Table 7  GLG standard criteria pertaining to societal aspects of sustainable development.

| Offer free or discounted green products to the public. |
| Develop a historic preservation ordinance. |
| Develop funding mechanism to aid with historic preservation. |
| Use of alternative fuel vehicles and/or bicycle patrol for urban/neighborhood areas. |
| Police trained in crime prevention through environmental design. |
| Public safety staff attends training on “healthy street” design. |
| Affordable housing constructed by city/county and other parties mandated to be green. |
| Operate an environmental demonstration/learning center. |
| Maintain organic community gardens. |
| Encourage mixed-use zoning/development. |

The economic criteria that they identified are, on one hand, all more or less themed around providing incentives to sustainably committed individuals, businesses, and activities, including promotion of organic farms, construction of green buildings and development projects, provision of green affordable housing, and incentives for green businesses and ecotourism. Criteria based on social issues, on the other hand, range from preservation of community historic sites, to provision for alternative-fuel vehicle/bicycle neighborhood patrols, to encouraging mixed-use development, to running community environmental learning centers. None of the respondents made any clear reference to equity considerations in local sustainability planning, an absence that conforms to nationwide community surveys carried out by Warner (2002) and Saha & Paterson (2008). It is pertinent to note that we do not negate the possible existence of additional economic and/or equity themed sustainability activities in any of the surveyed jurisdictions since the present study is limited to only local sustainability initiatives within the framework of FGBC’s GLG standard.

Conclusion

Our research evaluated the commitment and performance of local governments in Florida with regard to the implementation of FGBC’s GLG program. While we adopted Saha & Paterson’s (2008) strategy to evaluate the local commitment to sustainability planning, this work represents a pioneering effort to review the sustainability performance of FGBC-certified GLGs in Florida. Results of this study provide three important findings pertaining to local sustainability planning: the governments studied have included sustainability objectives in their strategic planning documents, sustainable development initiatives are not spread evenly across departmental
functions, and sustainability initiatives do not equally address the three aspects of sustainable development vis-à-vis environment, economy, and equity. First, some of the municipalities and counties in Florida that have adopted the GLG standard seem to be at the early stages of embracing the principles of sustainable development as an overarching planning paradigm guiding local policy making. Several localities in the state have introduced elements of sustainability within their strategic plans and other policy documents. Conventional wisdom and personal observation suggest that such a broad political commitment to sustainability is more widespread among the FGBC-participating municipalities than other Florida communities. According to Wheeler (2000), an endorsement of sustainable development through such policy documents leads to “consensus on directions for sustainable metropolitan development…inspires individuals to take action, and (if backed by political authority) actually brings about change.” Creation of a dedicated “sustainability office” and/or presence of staff devoted to carrying out sustainability activities is yet another way to ascertain local government commitment. An established sustainability office and/or staff was not found in many of the smaller cities and towns in the study sample, indicating that these communities may be significantly influenced by the availability of local financial and bureaucratic resources and may not entirely indicate the local government’s commitment to sustainability. Second, irrespective of a broader sustainability commitment, local government performance in terms of actual initiatives undertaken within the FGBC framework did not appear to be comprehensive. Certified local governments were found to have achieved just enough credit points to make the certification level. Also, sustainability criteria were not fulfilled evenly across the board, with some governmental departments seeing fewer sustainable development initiatives than others. This observation implies that although governments did formally adopt the sustainable development paradigm, the actual implementation of initiatives is subject to several local factors including political will, competing priorities, and economic and technological feasibility. It would be instructive to examine whether complexity or size of local government is partially responsible for such variations. Finally, this study shows that a majority of the sustainability initiatives undertaken by local governments revolve around environmental issues such as water-quality protection and waste-disposal programs. Municipal and county efforts were found to inadequately address the economic and social dimensions of the sustainable development paradigm. This finding is consistent with Saha & Paterson’s (2008) and Warner’s (2002) observations that the Three Es of sustainable development have failed to translate into reality at the local government level in the United States. While this study does not deny the possibility of sustainability aspects being partially addressed in existing equity or social justice programs within the surveyed communities, it is evident that any such initiatives are not part of the local sustainability discourses under the GLG program.

The study has examined sustainability efforts at the municipal and county level in Florida. As it is evident that local governments are in the forefront of the environmental sustainability movement in the United States, they will need to broaden their approach to achieve the global sustainable development objectives of environmental protection, economic development, and social equity that are outlined in the Brundtland Report. While voluntary, nongovernmental green certification programs such as FGBC’s GLG standard are changing the way local governments approach planning, such programs need to widen their focus to include socioeconomic aspects so that their outcomes are better aligned with contemporary global sustainability objectives. There is no doubt that FGBC is beginning to improve the environmental sustainability of Florida’s cities and counties by focusing efforts through a benchmarking matrix. However, new versions of FGBC’s GLG criteria should expand to more effectively encourage the state’s communities to integrate the three pillars of sustainability.

Acknowledgement

We would like to thank the editors and the anonymous reviewers of this article. In addition, we thank the municipalities and individuals who took part in the survey.

References

Betsill, M. 2001. Mitigating climate change in U.S. cities: opportunities and obstacles. Local Environment (4):393–406.
Campbell, S. 1996. Green cities, growing cities, just cities: urban planning and the contradictions of sustainable development. Journal of American Planning Association 62(3):296–312.
Chifos, C. 2007. The sustainable communities experiment in the United States: insights from three federal-level initiatives. Journal of Planning Education and Research 26(4):435–449.
Conroy, M. 2006. Moving the middle ahead: challenges and opportunities of sustainability in Indiana, Kentucky, and Ohio. Journal of Planning Education and Research 26(1):18–27.
Eaton, R., Hammond, G., & Laurie, J. 2007. Footprints on the landscape: an environmental appraisal of urban and rural living in the developed world. Landscape and Urban Planning 83(1):13–28.
Egger, S. 2006. Determining a sustainable city model. Environmental Modelling & Software 21(9):1235–1246.
Florida Green Building Coalition (FGBC). 2008a. Florida Green Building Coalition. http://www.floridagreenbuilding.org/home. August 1, 2008.

Florida Green Building Coalition (FGBC). 2008b. Green Local Government Standard. http://www.floridagreenbuilding.org/local-governments. August 1, 2008.

Gutman, P. 2007. Ecosystem services: foundations for a new rural-urban compact. *Ecological Economics* 62(3–4):383–387.

Jepson, E. 2004. The adoption of sustainable development policies and techniques in U.S. cities. *Journal of Planning Education and Research* 23(3):229–241.

Krizek, K. & Power, J. 1996. *A Planner’s Guide to Sustainable Development*. PAS Report No. 467. Chicago: American Planning Association.

Maclaren, V. 1996. Urban sustainability reporting. *Journal of the American Planning Association* 52(2):184–202.

Prugh, T., Costanza, R., & Daly, H. 2000. *The Local Politics of Global Sustainability*. Washington, DC: Island Press.

Rogers, R. 1998. *Cities for a Small Planet*. Boulder, CO: Westview Press.

Saha, D. & Paterson, R. 2008. Local government efforts to promote the “Three Es” of sustainable development. *Journal of Planning Education and Research* 28(1):21–37.

Warner, L. 2002. Linking local sustainability initiatives with environmental justice. *Local Environment* 7(1):35–47.

Wheeler, S. 2000. Planning for metropolitan sustainability. *Journal of Planning Education and Research* 20(2):133–145.

World Commission on Environment and Development (WECD). 1987. *Our Common Future*. New York: Oxford University Press.