

Finding New Solutions in Planning with Sustainable Development: A Case Study in Atlanta and Charlotte

The purpose of this study is to describe how sustainable development offers a new vision for planning. The paper defines the vision, explains the principles of sustainable development, and evaluates the plans of the Charlotte and Atlanta metropolitan areas to determine how well their policies support sustainable development. The Atlanta and Charlotte metropolitan areas were chosen for the evaluation because these two cities continue to experience rapid economic growth and are dominated by sprawl style development. Through the explanation of sustainable development and its application as a new vision, and through the use of principles of sustainability in analyzing the planning practice in two case studies, this article demonstrate how the sustainable development concept offers the breadth and analytical capability to lead the field into a new direction that will enable planning to bring life and health to our communities. The article concludes with recommendations for how to better incorporate a more balanced representation of sustainable development values.

Bradley P. Decker

Introduction

Planning needs a new vision. Planning needs a broad picture of how things could be if we apply new tools and techniques to our environment. This new picture is not a utopian dream that could be feasible if there were no political, social, environmental, or economic constraints. The new vision will have to incorporate these constraints into a large goal of how our future could be if we work together to create innovative steps to live in

communities that balance the economic, social, and environmental values and bring a higher quality of living to present and future generations.

Planning influences the state of our communities through many different mechanisms such as regulations, incentives, standards, and requirements. Planning uses these mechanisms to organize land uses, design development patterns, provide mobility and accessibility, provide and protect public goods and services, and encourage and manage growth. Planners work toward these goals in an attempt to create and maintain a high quality of living within a community.

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In actuality, planning's impact has been both positive and negative. The positive attributes that the field has contributed include planned communities, parks, regional plans, affordable housing, and public participation programs. Examples of these are new towns such as Reston, VA, which are designed to increase social interaction and provide

high accessibility to residents; inner city parks such as Central Park in New York, NY; regional plans such as those created by the Regional Planning Association of America in the 1920s; and public participation programs that are an integral part of most urban development plans. All of these examples have made a strong impact on our built and human environment and have successfully increased people's quality of living.

The planning field has also greatly contributed to the current type of development pattern that is the most common in the United States—sprawling development. Sprawl is characterized as low-density, single-use development that is linked by roads and interstates. This type of development is an inefficient use of land and has many negative externalities. These effects include dependency on the automobile, traffic congestion, excessive public expenditures on infrastructure, depletion of open space, social isolation, lack of affordable housing and many other problems. Beatley and Manning describe how many traditional planning tools have negatively affected our towns and cities:

This type of development has plagued our landscape and planners have been unable to significantly encourage a healthier type of development pattern. Planners continue to rely on the same tools that facilitated sprawl such as zoning regulations that mandate land uses to be low-density and completely separated, development regulations that require large parking lots and large setbacks, and comprehensive plans that encourage economic growth at the cost of social equity and environmental protection. Overall, planning has failed to bring health to our communities and in some cases actually exacerbated their decline.

The planning field needs a new vision for the 21st Century. Planning needs to regroup and define a new common good or purpose to work towards. The purpose must be centered on creating communities that have the long-term ability to sus-

tain healthy and fair ecological, economic, and political systems. Planning can work towards creating communities that engage residents to live within a natural set of boundaries that will allow the community to continue to provide a wide range of opportunities to its residents for many, many generations. Since planning has struggled to provide this in the past, the field needs to develop new tools and strategies to work towards this new vision. Planning needs to analyze the shortfalls in the tools

A NEW PLANNING VISION

There are several different theories that compete for the status as the new paradigm for planning. This paper selects a model developed by Berke and Manta-Conroy (2000) for sustainable development (SD).

Berke and Manta-Conroy's Sustainable Planning

Berke and Manta-Conroy define SD as "a 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" (Berke and Manta-Conroy 2000). This definition is based on three conceptual dimensions of sustainability: system reproduction; balance among environmental, economic and social values; and linkage of local to global and regional concerns (Berke 2001). Sustainable development combines these three concepts to create a vision that is comprehensive and holistic. From these three concepts eight principles were derived that enable communities and planners to begin creating new methods to implement the sustainable development vision.

The first concept, "system reproduction", is based on the idea that urban areas are living systems that are constantly changing (Berke 2001). These changes are created from flows entering the system, flows circulating within the system, and flows exiting the system. These flows are from the urban system being imbedded within a larger ecosystem. Once leaders and the public understand the city's relationship with the larger ecosystem and understand that the city is dependent on the sustenance of the larger system, they will most likely

strive to live within the natural boundaries of that system and not degrade it. By operating within these boundaries or within the ability of the larger system to absorb the urban area's impacts, the leaders and public will then be able to discover methods to deal with change in order to maintain and increase the quality of living for both the present generation and future generations (Berke 2001).

The second concept, "balance among environmental, economic, and social views", is the ability of the leaders and the public to find an "appropriate balance among these sometimes competing, sometimes complimentary values" (Berke 2001). These three views are the foundation of the community and each of these values has to be represented in planning for the community to be able to develop and grow in a positive direction. If one of the values is not represented during plan making, the community will not be able to grow holistically, inclusively, and within the natural boundaries of our ecosystems.

Campbell illustrates the balance of these three values in the "The Planner's Triangle" (Figure 1), a triangle composed of the three conflicting goals for planning: economic growth, equitable distribution of the growth, and environmental protection. The axes of the triangle are the three conflicts that communities and planners must deal with: the property conflict, the resource conflict, and the de-

velopment conflict. Campbell states that the balance of all three goals, the middle of the triangle, represents sustainable development. Therefore one of the methods to achieve a sustainable development vision is to find methods and ways to balance these goals in plan making and manage the conflicts (Campbell 1996).

The third concept of sustainability, "link local to global and regional concerns", calls for communities to work to solve regional and global problems at the local level and to take responsibility for impacts they create outside of themselves (Berke 2001). For the broader vision of sustainable development to be successful, communities need to cooperate with each other to begin addressing concerns that are beyond their capability of solving. If we continue on the common "each for their own" view, everyone will experience the "tragedy of the commons" scenario where each person pursues their own self-interest until the public good is completely destroyed. Regional level cooperation would greatly help prevent this type of tragedy. Communities could create external linkages and create a regional level of decision-making. Regional governments or commissions will be able to solve important issues that would be extremely difficult or impossible for local governments to solve by themselves.

The second aspect of the concept is for communities and individual polluters to take responsibility for their impacts (Berke 2001). Decisions and economic valuations currently do not fully account for externalities. In order to implement this concept into our plans, communities will have to revise planning techniques and tools. Leaders will have to hold the local government and the residents responsible for their actions through making sure that all externalities are known before development decisions are made. Planners must incorporate externalities into market-oriented techniques such as impact fees, taxes, and capital investments.

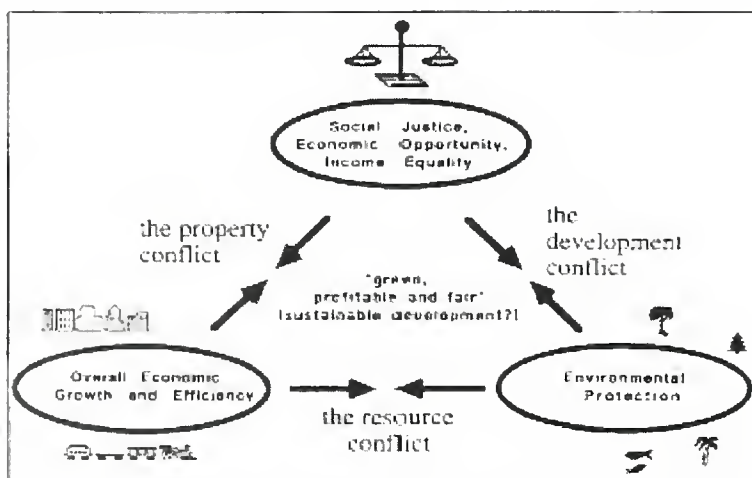


Figure 1. The triangle of conflicting goals for planning, and the three associated conflicts. The ideal of sustainable development is in the center. Source: Campbell 1996.

From the three concepts, Berke and Manta-Conroy derived six sustainable development principles. Each of the principles has a common notion and can be measured systematically. The principles help the planner translate the vision into practice and they allow the planner to evaluate how sustainable current practices are. The following are Berke and Manta-Conroy's operational principles:

1. Harmony with nature. Land use and development activities should support the essential cycles and life support functions of ecosystems. Whenever possible, these activities should mimic ecosystem processes, rather than modify them to fit urban forms. These activities must respect and preserve biodiversity, as well as protect and restore essential ecosystem services that maintain water quality, reduce flooding, and enhance sustainable resource development.

2. Livable built environment. The location, shape, density, mix, proportion, and quality should enhance fit between people and urban form by creating physical spaces adapted to desired activities of inhabitants, encourage community cohesion by fostering access among land uses; and support a sense of place to ensure protection of any special physical characteristics of urban forms that support community identity and attachment.

3. Place-based economy. A local economy should strive to operate within natural system limits. It should not cause deterioration of the natural resource base, which serves as a capital asset for future economic development. Essential products and processes of nature should be used up no more quickly than nature can renew them. Waste discharges should occur no more quickly than nature can assimilate them. The local economy should also produce built environments that meet locally defined needs and aspirations. It should create diverse housing, and infrastructure that enhances community livability and the efficiency of local economic activities.

4. Equity. Land use patterns should recognize and improve the conditions of low-income populations and not deprive them of basic levels of envi-

ronmental health and human dignity. Equitable access to social and economic resources is essential for eradicating poverty and in accounting for the needs of least advantaged.

5. Polluters pay. Polluters (or culpable interests) that cause adverse community wide impacts should be required to bear the cost of pollution and other harms, with due regard to the public interest.

6. Responsible regionalism. Communities should not act in their own interests to the detriment of the interests of others, and they should be responsible of the consequences of their actions. Just as individual developers should be subject to the principle that polluters (or culpable interests) pay, a local jurisdiction has an obligation to minimize the harm it imposes on other jurisdictions in pursuit of its own objectives (Berke and Manta-Conroy 2000).

Reasons for Using the Berke and Manta-Conroy Model

Berke and Manta-Conroy's definition of sustainable development and the accompanying principles provide the best framework for a new planning vision. Berke and Manta-Conroy's theory is both comprehensive and holistic while the principles provide a practical and specific application.

Their three concepts strengthen planning so that it is comprehensive, analytical, and long-term. This theory as an overarching theme for planning provides an organizational concept that brings consensus among planning professionals and provides guidance in the practice of making and applying plans. The underlying purpose of the theory is to protect the natural environment and promote a more equitable distribution of resources while creating economic development that brings vitality and livability to a community. This type of vision engages planning to have broad goals that thoroughly address all aspects of our built and natural environment. The theory's principles combined with public participation and input provide the material that can be used to create a precise and proactive agenda for leading communities into a livable and equi-

table future.

Methodology

The Atlanta and Charlotte metropolitan areas were chosen for the evaluation because they are two cities that continue to experience rapid economic growth and are dominated by sprawl style development. These two cities have conditions that are very conducive to the development of sprawl such as high growth, no natural hindrances to growth such as the coast or mountains, and the dominance of the automobile as the main form of transportation. The difference between the two is that they are at different stages in their growth. Atlanta is already experiencing serious repercussions of sprawl i.e. highly degraded air quality, heavy traffic congestion, and continued

population loss in the city. Charlotte is at an early stage in growth and has not fully experienced these problems. Leaders in the Charlotte metropolitan area are trying to develop plans that prevent Charlotte from developing in the way Atlanta has. The comparison of these two cities will help discover how well they are incorporating the idea of sustainable development into their approaches to stop sprawl and build communities that contain a high quality of living.

The purpose of the profile information gathered on each metropolitan area is to highlight similarities and differences in the history and atmosphere that will influence and differentiate the problems and approaches that the cities take. The profiles set a general understanding of the cities so that these characteristics can be linked to the plans,

Example 1: Within ARC's 2025 Regional Transportation Plan, the polluters pay principle is identified through a policy within the Transportation Emissions Control section. The policy states "promote cost-effective Inspection and Maintenance (I/M) testing designed to minimize emissions from gasoline and diesel powered on-road vehicles" (Atlanta Regional Commission 1999). This policy attempts to ensure that drivers maintain their vehicles to prevent excessive emissions; thus, this principle is classified as forcing polluters to pay. Since drivers will only be allowed to use their vehicles if they pass the test, the development management regulation that is used with this policy is within the "permitted use" category. The terminology that the plan uses in presenting the policy is "promote"; therefore the action is suggested and not mandatory and the plan is awarded one point. The inputted information is shown below.

Polluters Pay POLICY	Transportation	
	Code	Pg
1. Land Use Regs		
1.2 Permitted Use	1	13

Example 2: Within Charlotte's Center City 2010 Vision Plan, a policy stated in the urban design section supports the livable built environment principle. The policy states "heighten requirements for demonstrating financing and design intent prior to the issuance of demolition permits for properties determined 'locally significant' by the Historic Landmarks Commission" (City of Charlotte, Mecklenburg County, and Charlotte Center City Partners 2000). This policy fulfills the SD principle by protecting a special feature that supports "community identity and attachment" (Berke 2001). The development management regulation that is used is Standards for Retrofitting Existing Buildings. Since the plan uses no mandatory language in presenting the policy, the plan is awarded one point. The inputted information is shown below.

Livable Built Environment POLICY	Urban Design	
	Code	Pg
5. Bldg Codes and Stds		
5.2 Standards for Retrofitting Existing Bldgs	1	44

Figure 3. Plan evaluation method examples.

1. Land Use Regulation

- Denisty
- Permitted use
- Special study zone
- Sensitive area overlay
- Setback buffer
- Subdivision
- Site review
- Local environmental impact statement

2. Property Acquisition

- Transfer of development rights
- Acquisition of land
- Acquisition of development rights
- Land bank
- Acquisition of development units

3. Capital Facilities

- Phased growth
- Concurrency
- Location of capital facilities
- Urban service boundary
- Annexation
- Design of public facilities

4. Financial Incentives

- Impact Fees
- General financial or other incentive
- Reduced taxation
- Bonus zoning
- Exaction
- Land trust funds

5. Building Codes and Standards

- Standards for new buildings
- Standards for retrofitting existing buildings

6. Public Education and Awareness

- Builder workshops
- Public education program
- Real Estate Disclosure

Figure 4. *Development management techniques. Source: Berke & Manta-Conroy, 2000.*

policies, and the overall recommendations for using sustainable development as an approach in plan making.

Through applying sustainable development principles to plans, an understanding can be gained of how well cities are incorporating and balancing environmental, economic and social values. The principle policy evaluation method used the principles of sustainable development for evaluating how well plans support sustainable development. The evaluations provided empirical evidence that is used to compare and contrast the plans according to their promotion of the SD principles. Interviews with key stakeholders were used to identify any specific context or components in the development of the plan that form a basis for the success or failure of the plan to promote SD principles. The findings from these two steps will provide the information and analysis for creating overall conclusions and recommendations concerning how well cities are representing SD values.

Principle Evaluation

The principle policy evaluation performs an

analysis of the entire planning document to identify how many times the principles are applied and if they are mandatory or encouraged. Their application is shown through different development management techniques which are the overall application tools planning uses to implement policies. The principle policy evaluation will allow plans to be measured based on their advancement of the sustainable development principles. Then plans can be analyzed comparatively and as a whole to decipher which principles are being left out and which cities are more actively advancing the concept.

The first step in the evaluation process is to identify the sustainable development principle promoted by the policies in the plan. The principle is identified based on the goal that is linked to the policy or the reasoning for the policy as it is described in the text of the plan. Second the practicality of the policy is evaluated by determining if it uses one of the listed development management techniques (see Figure 4). The list of techniques is a comprehensive list of current tools planners use. The policy is awarded points for each development

management technique used and is award additional points if the technique is mandated rather than encouraged. Examples of the method are shown in Figure 3.

Interviews

The interviews were conducted with professionals that were involved in either the creation or implementation of the plan. The interviewees ranged from a planning director to a consultant. The questions in the survey were created to 1) gather information about the political atmosphere and support for the plan, 2) the special interest that shaped the plan and 3) the interviewee's opinion on the strengths and weaknesses. With this insight, the empirical evidence from the evaluations on the sustainable development principles can be compared to the interview information to determine why certain values were emphasized in plans and why certain values were avoided. Interviews with key stakeholders presented important insights into the impetus for the plans.

The interviewees were chosen based on their ability to give objective and conceptual information on the plan. There were a total of five interviewees. Each interviewee was asked questions about one or more of the six plans. The questions were focused on all three of the above subjects.

Background of Studied Plans

Atlanta Plans

The Atlanta plans that were chosen for evaluation were a metropolitan land use plan, a metropolitan transportation plan, and the comprehensive development plan for the City of Atlanta. These three plans form a broad and thorough view of the planning actions that the region is taking to correct the problems and enhance the strengths that are taking place. Two major factors that have a large influence on the plans for the Atlanta Metro area are that 1) in 1999, 13 counties covering the metro area did not meet the federal air quality standards and therefore were not eligible for federal highway transportation funding and 2) in 1996 a nine square mile area within the City of Atlanta became

a federal empowerment zone and receives a significant amount of grant funding and tax incentives to assist low-income residents and encourage job development. Both of these factors are heavily considered in establishing all three plans. The City of Atlanta CDP designed many of its policies and projects in conjunction with the advantages that are contained within the Atlanta Empowerment Zone. The Regional Development Plan and the Regional Transportation Plan have meeting federal air quality standards as one of their top goals in creating the plans; therefore, many of their policies reflect this.

The Atlanta Regional Commission (ARC), the Metropolitan Planning Organization for the ten-county Atlanta Region, created two of the evaluated plans for the metropolitan area while the City of Atlanta created the comprehensive development plan.

The ARC agency is responsible for carrying out a public participation process to identify regional goals and create strategies to attain the goals. State and local authorities use the goals and strategies to guide public investments and regulations. The agency is an advisory agency with no regulatory power. The agency does have access to a large amount of federal and state funding which it uses as "the carrot" to encourage local governments to abide by the standards ARC establish. In addition to the incentives ARC uses, the agency has an excellent reputation for understanding the current and future problems that the region will face. They are also known for creating solutions that will allow various municipalities to work together to alleviate these problems and create a higher quality of living in the area.

Regional Development Plan

ARC's Regional Development Plan "A Framework For the Future" was adopted in October 1999. The 1999 version is an update to a prior development plan. The plan presents 14 newly revised policies intended to serve as a guide for future regional growth. The RDP "forms the foundation for examining future water supply and water quality issues, provides insight into population growth and the implications for the delivery of humans ser-

vices programs, and outlines the future regional requirements for job skills training and economic development programs" (Atlanta Regional Commission - RDP 1999). The overall purpose of the plan is to correct the destructive growth pattern that is currently taking place and replace it with a pattern that decreases auto dependency, encourages higher densities, protects natural areas, and enhances quality of living.

The creation of the RDP started with VISION 2020, a project that utilized public participation to create a set of development issues. The development issues are the foundation of the RDP. The RDP was also closely coordinated with the Regional Transportation Plan (RTP) that was being developed at the same time. This coordination allowed both plans to develop policies that incorporated the land use/transportation link. This link allows land use strategies to complement transportation strategies to attain optimum gains. This vital coordination allows better usage and sustenance of a public transportation system, greater open space protection, the efficient usage of public monies and many other benefits that would not be possible by regulating only one sector.

Once the VISION planning effort was completed in 1996 and a set of goal statements was established to guide the RTP and RDP, ARC then analyzed four different growth scenarios. The first was a no-build analysis that "assessed existing and future transportation conditions, assuming no additional major improvements to the transportation" (Atlanta Regional Commission - RTP 1999). This scenario indicated that congestion would increase while air quality, mobility, and accessibility would continue to degrade. ARC then analyzed three other alternatives: 1) the continuation of existing growth patterns with increased alternative modes of transit along major travel corridors, 2) focusing future growth in existing developed and heavily populated areas of the Atlanta Region, 3) a combination of scenarios 1 and 2. After considerable research and debate, the task forces identified scenario three as the preferred option and presented a set of strategies to achieve this goal. The RDP focused on the land use and development alternatives that would achieve this goal and aid the transportation policies

and projects.

The RDP is composed of 14 policies, a set of land use, transportation, environmental, and housing practices, and a short section on implementation. The policies are very broad and mostly focus on encouraging mixed use, dense development that transit can serve. The best practices are a very practical application of the policies. These practices mostly concentrate on different design elements of promoting a new style and pattern of growth and development.

Regional Transportation Plan

ARC's RTP is a detailed and comprehensive policy document that sets forth goals and strategies that aim to reduce dependence on single-occupancy vehicle travel and promote alternative forms of transportation. The RTP conforms to the federal and state air quality standards for mobile source emissions as outlined in the State Implementation Plan (SIP). To meet these requirements the RTP had to demonstrate that the outlined strategies would reduce expected daily emissions to less than 224 tons of Nox and 132 tons of VOCs. The projected emissions of both of these fall below budget by 2003 with the implementation of the RTP policies and projects.

The RTP was produced using the same process as the RDP, which is described above. There are four transportation goals that were identified in the VISION 2020 project and form the basis of the RTP. The goals are: 1) accessibility and mobility for people and goods, 2) attain regional air quality goals, 3) improve and maintain system performance and system preservation, and 4) protect and improve the environment and the quality of life. The next step in the planning process was to analyze the four different growth scenarios for the region. Once the preferred scenario was chosen, the ARC staff and board selected a set of strategies in accordance with the 2025 Performance Targets. The targets ranged from 40% population within 0.4 miles of transit to 1.3 vehicle hours traveled per capita. The RTP stakeholders established the targets as acceptable and desirable standards that the strategies should work to attain by 2025. The policies are categorized into eight categories:

new/expanded roadways, transit, land use, transportation demand management, emissions control, environmental justice, design, and safety (Atlanta Regional Commission - RDP 1999).

City of Atlanta 2002 Comprehensive Development Plan

The City of Atlanta CDP, adopted in August 2001, is a lengthy plan that covers a wide range of issues. The purpose of the plan is to "be used as a guide for the growth and development of the City and which will identify its present and planned physical, social and economic development" (City of Atlanta 2001). The wide range of issues within the plan is divided into sections. They include economic development, housing, human services, transportation, environmental facilities, natural resources, historic resources, parks and recreation, arts and cultural affairs, libraries, education, public safety, general government design, urban design, land use, and a section on specific study areas. Each of these sections contains the current conditions, anticipated future conditions, current policies, current programs and projects, and 2002 CDP current programs and projects. The plan also contains three attachments: 1) a fifteen-year land use map, 2) a water supply watershed protection ordinance, and 3) a wetland protection ordinance.

The plan's policies and projects are implemented through the City's zoning ordinance, the subdivision regulation, HUD grants, and economic development incentives. The City's economic development incentives include the Atlanta Empowerment Zone funding, the Urban Enterprise Zone tax abatement and tax credit program, tax increment financing, and impact fee exemptions. During the creation of the plan the planning department relied heavily on the in-depth research that was conducted by the Brookings Institution Center on Urban and Metropolitan Policy which was included in "Moving Beyond Sprawl: The Challenge For Metropolitan Atlanta." The planning department relied on this information to understand the regional forces and effects that are occurring instead of just focusing on the city limits. The Brookings Institute researched into how the large economic, demographic and policy trends were affecting the City of Atlanta and the

metropolitan area.

The CDP gives detailed information in a systematic form. Each issue is presented with an extensive amount of information on the existing conditions. Then future projections are presented and they are compared to determine if the needs are met. Once needs are identified the goals are stated and policies are presented to meet the goals.

The mere breadth and depth of the analysis in the plan makes it very strong in affecting the social, economic, and physical aspects of Atlanta. The detailed knowledge base that is presented first in each plan element makes the policies very relevant and applicable to addressing the serious problems. The strength of the plan also lies in the specific policies that are applied through programs and projects. Each plan element ends with a chart stating the CDP program and project, the completion year and the responsible party.

Charlotte Plans

The Charlotte-Mecklenburg Planning Commission is the planning agency that creates and monitors all planning activity in the City of Charlotte and Mecklenburg County. The agency has produced three important planning documents that create visions of different scopes for guiding development and investments in their jurisdiction. The 2015 Plan, Center City 2010 Vision Plan, and the 2025 Transit/Land Use Plan are the three most current and definitive plans that form a unified vision of where and how Charlotte residents want to grow. These documents form a significant influence on Charlotte and guide the many smaller area plans that contain more specific, place-based strategies.

2015 Plan

The 2015 Plan "Planning for Our Future", adopted in November of 1997, is a product of an extensive public participation process that identified the most important community issues that needed to be addressed. The creation of the plan started with the 2015 View document that updated the growth projections to the year 2015 and assessed the current growth patterns. With this information fourteen citizen focus groups, including ap-

proximately 150 citizens, identified key issues, examined the current status of the County, and created goals and objectives of how to achieve "where they want to go" (City of Charlotte & Mecklenburg County 1997). The citizens identified seven issue areas: land use and design; neighborhoods; parks, recreation and open space; transportation; regionalism; education; and economic development. The plan is broken into sections devoted to each issue area. The sections start with a description of the issue area and then state very broad goals in which the citizens would like to have happen within these issue areas and then more specific objectives are stated to help achieve the goals. The last section of the plan is the implementation strategy for carrying out these goals. This section assigns tasks to different government agencies and proposes a cost estimate and source of funds for each issue. The plan is very comprehensive in the issues it addresses and contains a healthy balance among land use, economic, and social issues. Even though the plan is not a land use plan with development policies, the plan "serves as a framework and organization tool to ensure that priority issues are addressed" (City of Charlotte & Mecklenburg County 1997).

2025 Transit/Land Use Plan

Numerous private and public organizations worked together to form a revolutionary vision for the City and County. The plan, adopted in October of 1998, presents a large vision of a strong downtown with concentrated, mixed-use nodes of development in the periphery that are served by light rail transit. The plan is a bold move to stop sprawling development and create a strong alternative to the automobile. As a land use and transit plan, it focuses on the physical development of the area. The feasibility of the plan was strengthened with the passage of the one-half cent sales tax that is solely devoted to the funding for the public transportation system.

The overall strategy of the plan is "to coordinate the planning of land use and transit to achieve maximum benefits in guiding and servicing existing and future land development with transit investments" (City of Charlotte & Mecklenburg County 1998). The plan states overall land use and transit recommendations that will enable the vision

to be achieved. Most of these recommendations aim to increase transit ridership and create a different development pattern in the region that will improve the quality of living. The recommendations aim to revise current policies, plans, and zoning to allow increased densities and mixed uses within Transit Districts (TDs). TDs are the designated nodes of development that will be served by transit. To be more precise, the plan divides the region into five different corridors and states specific land actions for each area. The plan assigns a variety of transit modes to the areas depending on the area's characteristics. For example the plan recommends bus rapid transit with bus only lanes for the Independence Corridor due to the low capital cost per rider for this low density strip development dominated area. Each section ends with phased implementation steps for the first 5 years, 6 to 10 years, and 11 to 25 years.

The 2025 Land Use/Transit Plan presents a bold scenario of drastically changing current development policies and ordinances to maximize the benefits that a large investment in transit will create. The plan is design focused with strategies for specific locations in the region. Even though the plan does not explicitly address social and environmental issues, the implementation of the "Centers and Corridors Vision" has the possibility of creating large social and environmental benefits.

Center City 2010 Vision Plan

Adopted in May 2000, the Center City 2010 Vision Plan is a comprehensive plan that is devoted to the physical structure of the center city. The boundaries set for the center city are shown in Figure 16. The plan was produced through three community workshops that involved over 700 citizens. In the workshops the participants identified a vision statement that would be the theme of the plan: "To create a livable and memorable Center City of distinct neighborhoods connected by unique infrastructure" (City of Charlotte, Mecklenburg County, and Charlotte Center City Partners 2000). The three goals that the citizens wanted to focus on were making the Center City more viable, livable, and memorable. The residents agreed that the most challenging goal would be to make Charlotte a more memorable place. To make the center

city memorable they formed seven general principles to guide the entire process. In the plan they stated "to create a memorable city, each future development, program, renovation, funding initiative and city improvement should be evaluated on its success in achieving the following criteria: pedestrian, mixed, balanced, leveraged, varied, designed, and connected" cities (City of Charlotte, Mecklenburg County, and Charlotte Center City Partners 2000).

The plan is divided into five different sections: land use, growth and city form; open space, parks and recreation; transportation, streets and parking; catalyst projects; and neighborhood plans. Each section consist of broad goals, recommendations with a diagram identifying exact locations for the recommendations, and lastly implementation steps. The goals are actually the application of three of the principles to the specific section. For example the goals for the Land Use, Growth and City Form section are to encourage a mix of uses; create a balanced ratio of residential units, office space, stores and entertainment facilities; and commit to a specific design in the downtown that is distinctly Charlotte.

Even though the plan lacks specificity in development policies, the plan creates guiding principles for ten years into the future and states ten priority projects that will make the center city more memorable. As shown in Figure 16 the plan applies

the principles to the center city through an overall new design of the downtown and through targeting specific locations for projects that encompass the guiding principles. It is more likely that these specific actions will occur since the plan also used an intensive public participation process that formed a strong support and focus for the downtown.

Findings

Evaluation Findings

The results of the evaluation reveal a clear picture of how plans concentrate on enhancing the built environment to make a more efficient and enjoyable place for people. The livable built environment principle is the closest principle to the historic roots of planning field. The humanistic idea of creating and manipulating built structures to encourage identity, aesthetic appeal, comfort, economic productivity, and efficiency among land uses has been at the core of planning since its birth. The idea that this notion continues reveals planners fascination with the subject.

Results

Once the evaluation was completed the number of points from each principle for each plan were totaled. The results are shown in Figure 17. The results for the plans are that the City of Atlanta Comprehensive Development Plan scored the most points by a very large margin. The ARC Regional

	Atlanta			Charlotte			Total
	ARC 2025 RTP	ARC RDP	City of Atl 2002 CDP	Char.-Meck. 2010 Center City	Char.-Meck. 2025 Trans/LU	Char.-Meck. 2015 Plan	
Harmony with Nature	8	23	59	8	4	12	114
Livable Built Environment	46	65	101	64	64	33	373
Place-based Economy	9	16	15	9	1	21	71
Equity	19	12	59	7	4	26	127
Polluters Pay	1	0	1	1	0	0	3
Responsible Regionalism	20	32	4	1	6	44	107
Total	103	148	239	90	79	136	795

Figure 17. Overall results from sustainable development evaluation.

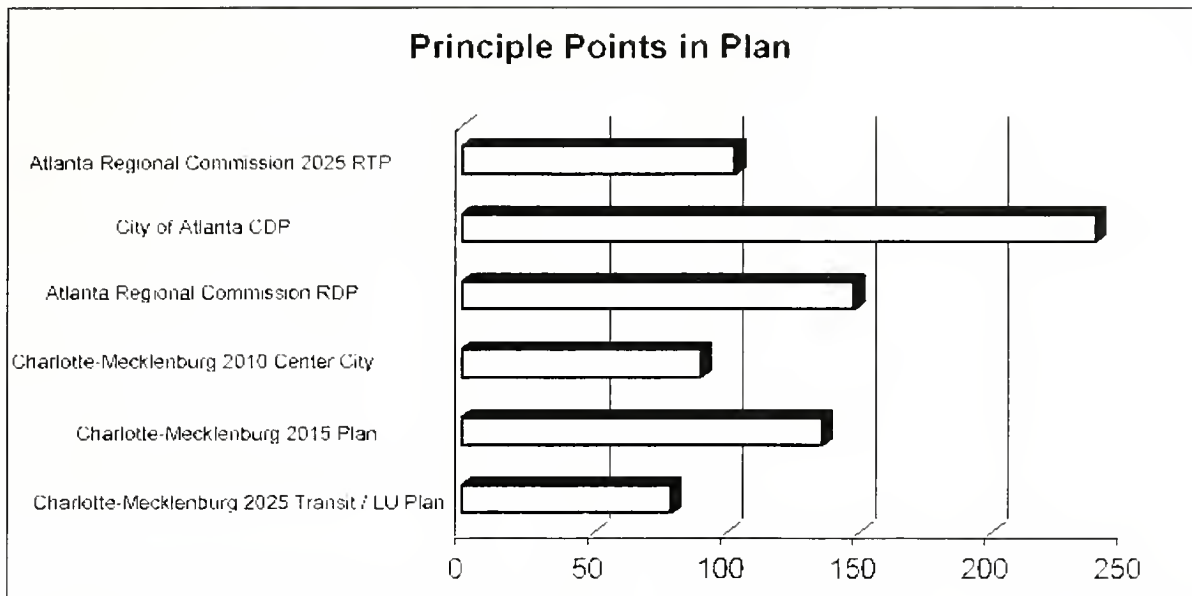


Figure 18. A comparison of total scores for each plan.

Development Plan scored the second most points and the Charlotte-Mecklenburg 2015 Plan came in third. The Charlotte-Mecklenburg Transit/Land Use Plan scored the least points out of all the plans.

The comprehensive development plan is the plan that scored the highest number of points. This reveals the ability of the plan to balance the competing values of sustainable development and thus create a holistic approach to planning. The City of Atlanta CDP scored very high points in equity and harmony with nature and thus emphasizes social and environmental values more strongly than the other plans.

The 2002 CDP scored the most points in the equity principle by a large margin. The plan contained extensive and aggressive programs for promoting equity. One of the reasons the City was able to do this, besides the significant amount of attention that the City has historically placed on equity, is that the City was awarded an Empowerment Zone designation in 1994. The City received a grant award of \$250 million from the U.S. Department of Housing and Urban Development. The purpose of the grant is to "empower selected inner-city low income communities and their residents through economic and community development programs, public safety programs, and social service programs to solve difficult social and eco-

nomic issues in these communities" (City of Atlanta 2001). The plan benefited by intertwining many of their policies with the federal programs and policies.

An example of a policy within the plan that is linked to the Empowerment Zone is the Empowerment Zone Down Payment Assistance Program. The program assists first-time homebuyers, within the empowerment zone, with up to 80% of their down payment.

Another example of an equity policy that was included in the 2002 CDP is development fee exemptions. The policy states that developers who are building affordable housing units or economic development projects are exempt from the payment of development impact fees. Eligible economic development projects are projects located within designated low-income areas.

The 2002 CDP plan also went into great detail on environmental policies, which directly supported the harmony with nature principle. The plan contained specific policies that aim to protect natural resources. These policies range from permitted uses within the subdivision regulations to educational programs. An example of a policy is "restrict development of floodplains to pathways, picnic areas, ball fields, golf courses and other appropriate

recreational elements that protect and preserve the resource” (City of Atlanta 2001). Another example is the policy that states “support and promote opportunities for establishing conservation easements as authorized in Section 10-2044 of the City of Atlanta Tree Ordinance” (City of Atlanta 2001).

There are numerous policies within the plan that support equity and natural resources. The plan also represents other SD values through separate sections on economic development, transportation, historic resources, land use and urban design.

The plan that scored the second highest points is the ARC Regional Development Plan which despite scoring a large amount of points in the livable built environment category also significantly stressed regionalism, environment, and economy. The plan covers all of the SD principles except for the polluters pay principle. Besides the livable built environment principle, the plan scored high proportionally in the harmony with nature, place-based economy, and responsible regionalism principles.

The plan’s concise format starts with policies, states best practices for each policy area, and ends with a section on implementation. Best practices were not used by any of the other plans in the study. Best practices are an excellent method for revealing how policies should be applied and made into action steps. Many of these action steps illustrate how the SD principles are represented and supported within the plan. For example the plan scored relatively high in the harmony with nature principle. The policy related to harmony with nature principle in the plan is policy 10: protect environmentally sensitive areas. The policy is very vague until it is broken down into best environmental practices. There are eleven best practices that explain exactly what areas to protect and how to best protect them. Principle three is to “preserve patches of high-quality habitat, as large and circular as possible, feathered at the edges and connected by wildlife corridors, stream corridors offer great potential” (Atlanta Regional Commission - RDP 1999). This principle explains what areas the local governments should attempt to protect and how to design the protection areas. Principle eight is to “detain runoff with open, natural

drainage systems, the more natural the system the more valuable it will be for wildlife and water quality” (Atlanta Regional Commission - RDP 1999). These principles show how development and preservation efforts should mimic ecosystem processes, which is exactly what the harmony with nature principle advocates for. Therefore the best practices section was a key element within the plan that revealed how the policies support SD principles.

The plan that scored the least amount of points was the most specialized plan. The Charlotte-Mecklenburg 2025 Transit/Land Use Plan contained a large amount of information and policies but they were almost all concentrated on making a better fit between people and the urban form, livable built environment principle, with very little concern for the environment, regionalism or equity.

The focus of the plan was on promoting the centers and corridors theme to the public. The plan focuses on how this major public investment will be designed and sited. Therefore the majority of the plan is composed of how the land use regulations surrounding each corridor will be changed, what type of transit system will be developed, the phasing of the system, costs, and issues and steps involved. The plan stresses how accessibility and mobility will increase and how quality residential and office development surrounding the stations will occur. The plan avoids integrating any other values or concerns.

The livable built environment principle represented 81% of the SD principles within the plan, while the equity and harmony with nature principles combined represented 10% of the SD principles within the plan. There are numerous proposed policies within the plan that support creating a livable built environment. Most of these dealt with either the urban design or the transportation facilities. Some examples of these proposed policies are creating transit districts (TD) that have: minimum densities, density bonuses for cluster development, accessory apartments allowed of right, and streamlined permit processes. Another proposed policy is “creating incentives (including tax breaks) for redevelopment projects that incorporate transit fa-

cilities or provide other definable transit supporting features” (City of Charlotte & Mecklenburg County 1998).

There were only a few principles or policies that dealt with equity or protecting natural resources. Some of these are “added services by the Department of Social Services to transport the elderly to and from non-medical trips and the disabled to jobs and increased specialized transit service for the disabled-accessible buses” (City of Charlotte & Mecklenburg County 1998). The only proposed policy for environmental protection was density bonuses for cluster development with increased open space.

There were a great number of opportunities within the plan to account for social, environmental, and regional values and create strategies to protect each of these elements but none of these opportunities were taken advantage of. For example, the plan could have recommended methods for preventing the centers and corridors from encouraging development in environmentally sensitive areas. The plan could have created a strategy for creating economic development within low-income neighborhoods. The plan could have also identified ways to prevent low-income residents surrounding proposed transit stops from being displaced. There were a great number of missed opportunities in this plan.

Overall Plan Evaluations

The results for the principles are that the livable built environment principle was promoted in the plans significantly more than any other principle. The livable built environment principle accounted for almost half of all the principles promoted in the plan. Each of the other principles accounted for 16% or less in the plans. The polluters pay principle represented less than one percent of the sustainable development principles. These results are consistent with the comprehensive plan evaluation results from the Berke and Manta-Conroy study completed in 2000.

The plans that balanced more SD values used a specific method to do this. The 2002 CDP used a federal program that provided the resources and momentum for developing policies and strategies

for equity and urban environmental protection and cleanup. The ARC Regional Development Plan used best practices to exemplify how the policies should be applied. The plans that performed the worst in the principle policy examination were the plans that were narrowly focused on development and did not include any type of method for representing other values.

The principle policy examination reveals that planners and their plans must create holistic and creative strategies that move beyond the fixation with building better structures to influencing processes and social structures. As shown through the narrow scope that plans use, planners’ understanding of all the aspects that can be positively affected through the planning field is not fully realized. Planning has ignored the effect that plans can have on the social and economic realm while almost completely emphasizing development approaches that make the built environment more compatible to people. The more planning moves beyond its historic parameters into creatively working to solve societal problems holistically, the more the sustainable development philosophy will materialize in our communities.

Interviews

The following is a synopsis of the information gathered in the interviews:

City of Atlanta 2002 Comprehensive Development Plan

The plan is a mandated yearly update for the City of Atlanta. The plan contains a broad base of support including multiple governmental departments, city council, and the neighborhood planning districts. The main issues addressed in the plan are gentrification, urban design and land uses, and development plans for the Empowerment Zones. The strategy for these issues are to use subsidies, density bonuses, etc. to provide incentives for affordable housing and land use controls (J. Heath, personal interview, March 12, 2002).

The 2002 CDP scored the highest overall in the SD principles. The plan also contained the highest proportion of points devoted to the equity principle and the highest proportion of points devoted to the

harmony with nature principle. There are three main reasons identified in the interview that the plan contained the highest proportion of points in these two principles: 1) the plan was greatly influenced by a special interest group that represented low-income neighborhoods, 2) the plan was linked to the federal Empowerment Zone Program which provided resources and strategies for equity and environmental justice, and 3) the plan states detailed and specific policies with implementation steps for a broad range of issues.

The interviewee actually identified two of these three reasons as weaknesses within the plan. The special interest influence was identified as a fundamental flaw of the planning process. The interviewee stated that the neighborhood planning units, which help develop the plan, have diluted the policies because of special interests. The groups were created as advisory committees but now use their influence and control to concentrate the plans on specific, narrowly focused issues that greatly decrease the ability of the plan to promote a broad long-term strategy for the City. The second weakness is the detail of the policies. The interviewee states that the plan is too large and the yearly update is too often. The size of the plan discourages residents from reading and using the plan. The attachments combine material that take away from the utility of the plan. The yearly updates are too often and overburden the planning staff. The planning staff cannot concentrate their time and energy to many other projects because of yearly updates (J. Heath, personal interview, March 12, 2002).

ARC Regional Development Plan

The Regional Development Plan is required by the State every five years. Numerous government agencies and citizen groups supported the plan. The support included the Atlanta Chamber of Commerce, ARC and its' board, the State Governor, Georgia Regional Transportation Authority (GRTA), and citizen support from the intensive public participation workshops. The plan's main theme is to guide growth according to Smart Growth principles. The implementation of the land use strategies is not included in the plan but is within the "Joint Land Use Strategy".

The plan's strength in the livable built environment SD principle is shown through its' encouragement of infill development and redevelopment. This part of the plan is rapidly taking place - not because of regulations or incentives provided in the plan - but because of a change in consumer taste. There is a recent trend for people to move inside the 285 beltway to get closer to jobs. This is mainly because traffic is becoming such a large problem people are changing their location to improve accessibility (D. Reuter, personal interview, March 12, 2002).

Although the livable built environment principle is the dominating principle in the plan, there are major weaknesses in how the plan addresses that principle since the plan does not create a completely effective strategy for stopping sprawl. The plan does not address the restriction of growth (D. Reuter, personal interview, March 12, 2002). The plan states tools for managing growth but does not attempt to restrict the sprawling development that is consuming large tracts of open space in the metropolitan area. The destruction of open space is one of the largest livability problems for the metro area and the plan does not address this problem.

ARC Regional Transportation Plan

Since the plan was created by the same agency and close to the same time that the RDP was created, the support and representation of the plan are very similar. One important difference is that the RTP was federally required since the Atlanta Metropolitan Area did not attain the mandated federal air quality requirements. The federal government froze funding for roads until the metropolitan area showed conformity. Part of the conformity process is for the Metropolitan Planning Organization (MPO), which was ARC, to create a transportation plan every three years.

As shown in Figure 17, the ARC RTP scored very low in the environmental, equity, and economy principles. One of the main reasons that the plan does not include these elements into the transportation strategy is because these are mainly affected through the land use/ transportation connection and the plan does not adequately link land use planning

with transportation planning. The plan does not set up a structure for regional coordination of land use controls with the construction of transportation infrastructure. The transit and road construction has a “hit and miss” connection with land use (D. Reuter, personal interview, March 12, 2002).

Charlotte Land Use / Transit 2025 Plan

The Charlotte Land Use / Transit 2025 Plan was based on an adopted 1995 plan called “Centers and Corridors Vision” which was to redirect growth to the thoroughfares and the center. The 2025 Plan contains integrated land use and transportation strategies to develop a more specific framework for the vision. One of the main purposes of this plan was to gain support for a ½ cent sales tax referendum. The plan did gain enough support and the referendum was passed. The next step in this large infrastructure project is the investment studies of the specific corridors. More than any other plan in the study, the Charlotte 2025 Plan disproportionately promotes the livable built environment principle compared to the other principles. The overemphasis on creating an attractive and enjoyable physical environment is directly related to the special interest that helped create and support the plan. The special interest was the Mayor and the downtown business community. Both of these parties wanted to “sustain the economic dominance of the center through anchoring it with transit”, which is the theme of the 2025 plan (U. Avon, personal interview March 17, 2002).

The Mayor used the “Centers and Corridors Vision” as a political stance that was based on enhancing transportation mobility. The other main supporter was the Charlotte Center City Partners, which is a very powerful public/private group that was started in the 1970s to represent the business interest in the downtown (D. Campbell, personal interview, March 14, 2002). The elected officials and the business interest have a strong relationship in public/private investments and both supported the “Visions and Corridors” strategy.

Equity represented only 5% of the SD principles within the plan. There are many equity implications that the plan will create and these are not addressed within the plan. These implications are

mainly gentrification and longer transit travel for the existing transit dependent population. A portion of the existing bus transit will mostly likely be re-routed to the light rail stops. This could create a heavier burden on people currently relying on bus service since it will increase travel time by creating more transfers. The transit locations will create a certain amount of gentrification (U. Avon, personal interview March 17, 2002). But according to the planning department some displacement and gentrification is positive (D. Campbell, personal interview, March 14, 2002).

Charlotte Center City 2010

The Charlotte Center City 2010 Plan is the third city center plan since 1980. The plans are updated every ten years. The plan is jointly sponsored by the Charlotte Center City Partners, a downtown public/private business interest group. The plan also included a strong public participation process during its’ creation.

The 2010 Plan is very similar to the Charlotte Land Use / Transit 2025 Plan in that it disproportionately promotes the livable built environment principle compared to the other principles. The overemphasis on this principle is also directly related to the special interest. The same special interest group in the Charlotte Land Use / Transit 2025 Plan, the Charlotte City Center Partners, was the dominating supporter of this plan. The business group wanted to use the plan to create a downtown environment that would attract residential and retail activity. The plan’s approach is through public infrastructure such as parks and transit corridors and targeting areas for redevelopment. Despite the plan’s attempt at creating a more livable environment, it has been unsuccessful at attracting retail to the downtown (M. Cramton, personal interview, March 11, 2002).

Equity represented 7% of the SD principles within the plan, while the livable built environment principle represented 71% of the SD principles within the plan. This inadequacy for representing other values within the plan reveals the narrow view that the special interest groups encouraged.

Some equity considerations were addressed

through the use of focus groups. For example focus groups were used to resolve a conflict between the existing neighborhoods within the City and developers. The developers were encouraging higher densities and infill development in the neighborhoods within and surrounding the center city. The neighborhoods were fearful that the increased density would create more crime and degrade the sense of community. Through focus groups both parties worked out a solution allowing higher densities with attractive development that was sensitive to the existing neighborhood fabric (M. Cramton, personal interview, March 11, 2002).

Charlotte Planning For Our Future 2015

Planning For Our Future is a policy document that is an update to the 1985 land use policies. This document was the first step in developing the 2025 plan. The plan was solely supported and developed by Charlotte-Mecklenburg Planning Department.

The 2015 Plan balances the SD principles the best out of all the plans in the study. This more equal representation of values is due to the breadth of issues covered in the plan and the specific goals, objectives, and actions that are stated within each of the issues. The plan covers many issues since it serves as an overarching framework for the neighborhood district plans to go into much more detail. The second strength, the specific implementation steps, is due to the formatting of the plan. In addition to the goals, objectives, and actions sections within the plan, the plan contains an implementation section that assigns responsibilities to government bodies and requires inter-government coordination. For example, one of the outcomes of the plan was the creation of a public school facilities plan that specifies joint projects between the planning department and the school system (M. Cramton, personal interview, March 11, 2002).

Overview of Interviews

The interviews uncovered three main issues pertaining to SD: 1) special interest groups had a significant impact on the SD goals of the plans 2) the lack of a unified strategy for stopping sprawl greatly limited the amount of SD principles that were incorporated and 3) detailed policies and

implementation steps greatly increased the intensity of SD principles. Each of the six plans was affected by at least one or two of these issues.

In many of the plans the interviewees identified groups that had a considerable amount of control over the plan. Some of these groups put a significant amount pressure during the plan making process to assure that their interest were addressed. Many of these specific concerns were raised as priorities and some of these concerns limited the SD goals of the plan while some actually promoted SD goals.

The plans presented various tools that can be used to stop dispersed development but did not state an integrated set of policies that would aggressively discourage low-density greenfield development and encourage mixed use, higher density development. Most of the plans stated various development management techniques to control growth but did not connect these tools to reinforce each other. Without a strong unified strategy that links residential and commercial development to accessibility and mobility, these metropolitan areas will continue to develop in a horizontal spatial structure.

Conclusions and Recommendations

Critique of model

The policy evaluation model served the purpose of rating the level in which plans integrated policies that promote the ideas of sustainable development. The model enabled the plans to be analyzed based on how well they represent the values of sustainable development and how well they crystallize the goals into workable policies. Even though the policy evaluation model was able to rate the plans, the model contained flaws and weaknesses that are summarized as: 1) the difficulty in capturing all the plan's policies that promote a specific principle, 2) the inability to quantify the large projects within a plan that will fulfill a certain principle, and 3) the possible disadvantage that a land use plan would have compared to a comprehensive plan.

The difficulty in capturing all the plan's poli-

cies that promote a specific principle is mainly caused by the rigid set of policies that all the principles within the plan are rated with. These policies focus on physical development and do not include many social programs and policies at all. The dominance of physical policies creates problems in trying to capture policies that promote equity and place-based economic development. Another problem is that the rigid set of policies lacks the ability to capture innovative and new policies. Changing the policies according to the principle would alleviate this problem. For example, when evaluating equity within a plan, the model's policies should change to reflect more socially oriented policies. This would provide a more reflective rating of the plan's work in promoting equity.

The second weakness concerns how the large projects that a plan promoted were not taken into account in the rating. For example, the Charlotte Land Use / Transit Plan was based on the construction of a light rail and rapid bus system that attempts to decrease sprawl and promote mobility. This large investment contains numerous environmental and equity benefits that were not captured in the rating.

The last weakness is the possible disadvantage that a land use plan would have compared to a comprehensive plan. Comprehensive plans do cover more elements than a plan focused on land use and therefore would possibly be able to score more points since the comprehensive plan covers more elements within a community. Although this could create a slight discrepancy in points, the underlying theme of the comparative study is to reveal how the sustainable development ideology is not composed of values that are applied separately but that the balance of all three values represents sustainable development (Campbell 1996). Therefore if all three values are represented equally, a plan would not score less if it concentrated on land use since equity, environmental protection and economic development would be equally integrated into the policies.

Conclusions

The plans that performed the best in the principle policy evaluation were the plans that: 1) in-

corporated more of a balance among values, 2) used a specific method to balance values, 3) allowed special interest to advocate for values without over representing particular values, and lastly 4) incorporated specific policies that included implementation steps. These four elements were evident in the plans that scored the highest in the principle policy evaluation.

Plans that contained a more equal proportion of represented values scored higher overall. Since the livable built environment principle dominated all of the plans, plans that promoted other principles in concert with the livable built environment principle scored better than plans that solely concentrated on making a better fit between people and the urban form. For example the plan that scored the highest overall, the City of Atlanta CDP, only contained 42% of their principles representing the livable built environment principle while the plan that scored the least overall, the Charlotte-Mecklenburg 2025 Transit/Land Use Plan, contained 81% of their principles representing the livable built environment principle.

Plans that represented more of a balance among competing values incorporated a particular method to promote other values. The various methods provided the momentum and the capacity for plans to integrate aggressive strategies that represent values that are normally not included. For example the City of Atlanta CDP connected their policies and projects with the Federal Empowerment Zone Project to provide additional support and momentum for services towards equity and environmental protection. Through linking their policies to the Federal Empowerment Project, the plan was able to develop substantially powerful policies and projects for providing services to low-income neighborhoods, attracting reinvestment into these areas, and advocating for environmental protection during the development process. The equity and harmony with nature principles each represented 25% of the policies within the City of Atlanta CDP. This was the largest representation of both principles in the principle policy evaluation.

The third characteristic of the most successful plans in the evaluation is the ability of the plan making process to enable special interest groups to

contribute to the plan without allowing them to compromise the overarching goals of the plan. Special interest groups can serve an important purpose of advocating for the inclusion of more diverse and varied views into the plan making process. Special interest groups can promote and increase a more balanced representation of values. For example, in the City of Atlanta CDP the neighborhood groups were powerful special interest groups that advocated for a larger focus to be given to low-income residents and neighborhoods. The impact of these groups is shown through the relatively high points that the equity principle received in the evaluation.

Just as special interest groups can reallocate attention to underrepresented values, special interest groups can also negatively impact plans through influencing plans to overwhelmingly focus on their particular interest at the cost of the other concerns. This is shown in the lowest scoring plan, the Charlotte-Mecklenburg 2025 Transit/Land Use Plan. The special business interest that had strong ties with the City and County governments focused the plan on sustaining "the economic dominance of the center through anchoring it with transit" (U. Avon, personal interview March 17, 2002). The significant pressure that the special interest group placed on creating a functionally efficient and aesthetically pleasing city severely stifled the other values from being represented. This is shown through the low representation, 19% of total score, that the plan gives to all other principles.

The last characteristic of successful plans is the incorporation of specific policies that include implementation steps. Plans that contained detailed policies that were supported by descriptive strategies, which can be evaluated and held accountable to, scored higher in the principles policy evaluation. One example is how the ARC Regional Development Plan, the second highest scoring plan, used best practices within each policy section and ended with a section on implementation. The best practices are a practical and more easily understood method for applying the policies. The best practices are specific guidelines that can be measured and regulated. Another example is how Charlotte's 2015 Plan, which received the third highest number of points, assigned each of the goals

in the plan to a specific government agency and attached key actions and cost estimates for the designated department. During the interview the interviewee had stated that many of the assigned tasks had already been completed.

How Can Planners Integrate Sustainable Development Into Plans?

For plans to be sustainable they need to focus more on the social and environmental elements of a community rather than being overly concentrated on the physical built environment. Through the evaluation of sustainable development principles within different plans and interviews with key stakeholders, the paper identifies three specific ways that plans can better incorporate a more balanced representation of sustainable development values:

- **Plans need to integrate particular mechanisms for balancing competing values.** The purpose of these mechanisms is to promote a balanced representation of values through providing the capacity and tools for advancing underrepresented values. These mechanisms include federal and state programs, federal and state mandates and policies, regional initiatives and community goals and guidelines. These different programs and policies can be used within a plan to increase the ability of the plan to promote values that are many times not equally included.

- **Planning agencies need to put in place mechanisms that involve special interest groups but balance the amount of control they have over the process to ensure that the broad goals and policies do not get compromised in order to satisfy special interest.** Plans need to be devoted to the larger, long-term vision of the community. Plans need to continue with intensive public participation, neighborhood district representation, and facilitating the business interest so that these groups will bring knowledge and ownership into the planning process. More importantly this participation needs to be balanced with an adherence to the larger, broader goals that will benefit the entire public and will address regional and global concerns.

• **Plans need to state specific policies that are supported by implementation programs.** The policies and implementation steps can take various forms. Policies can be made explicit through best practices, guidelines, objectives, and key actions. The policies need to be followed by an implementation plan that assigns responsibility to certain parties. The implementation plan needs to include a timeline and the type of resources that are needed and available for the steps to be completed. Through explicit policies and implementation steps, plans are able to reveal how sustainable development values represented within the plan are converted into actions that will become a reality.

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