Scenario Planning for Effective Regional Governance: Promises and Limitations

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Governance Matters

Scenario Planning for Effective Regional Governance: Promises and Limitations

Arnab Chakraborty

Abstract
Regional governance has improved efficiencies in various common goods such as transportation. Attempts to take advantage of such regional economies through regulation of land use run into the problems of existing local government controls and lack of existing alternative authority. One way to help promote regional solutions is to foster coordination among land use entities in local government. Scenario planning provides a participatory process, allows for thinking systematically about the future, and has been tested for its potential in furthering regional governance. An ongoing effort called the Maryland Scenarios Project is leveraged. The process of scenario building is assessed, and four scenarios are compared. The outcomes show different local and regional impacts under different possible futures. The analysis helps identify strategies for local governments including reacting to or collaborating with neighboring jurisdictions. The findings suggest that scenario planning encourages rational decision making on a regional level and can be an important policy instrument for local and state governments.

Keywords
land use, regional governance, scenario planning, transportation

Neither regional planning nor its critiques are new. Economic theory suggests that regional plans can internalize most costs, reduce uncertainties, and minimize wasteful competition among local agencies (Knaap, Ding, and Hopkins 2001; Jackson 2005; Landis, Deng, and Reilly 2002; Fishman 2000). Already many plans and policies are set regionally for various common goods including transportation infrastructure planning and environmental impact management and mitigation. Councils of government (COGs), regional councils, metropolitan planning organizations (MPOs), and even states and federal agencies are often mandated or persuaded to make decisions or coordinate policies at the regional level. Similarly, land use decisions can gain from regional coordination and can reinforce the aggregate impact of other regional plans (Goetz 2006). Nevertheless, regional coordination of land use is uncommon. After the model planning and zoning enabling acts were prepared by the Department of Commerce in the 1920s and subsequently ruled by the Supreme Court as legitimate to protect the health, welfare, and safety

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of citizens, the practice of zoning became the dominant instrument of land use control by local governments in the United States. Local governments are protective of this authority (Briffault 2000; Kincaid 1993) and have historically exhibited distrust toward neighboring jurisdictions (Nicholas 1999). The resulting fragmented planning for land use has been blamed for uncoordinated development within metropolitan areas (Ewing 1994; Johnson 2001), leading to negative regional outcomes, such as inefficient infrastructure spending (Knaap, Hopkins, and Pant 1996; Pendall 1999; Knaap, Ding, Senate Bill 100 (Oregon Legislative Assembly 1973), exclusion of affordable housing from some suburban communities (Chakraborty et al. 2010), and excessive loss of open space and natural resources (Bengston, Fletcher, and Nelson 2004). Many responses have been presented with varied impacts including city-county consolidation (Fleischmann 2000) and voluntary local government joint ventures (Hawkins 2009). Hawkins’s survey of local governments engaging in interjurisdictional ventures found that despite the calls for a greater role of metropolitan organizations in regional coordination, very few local governments noted the presence of a third party as a reason to cooperate.

Within this institutional structure, one way to help promote regional solutions for land use and provide incentives to local governments to participate in them is to foster coordination among their land use entities and professionals in decision making. An effective tool for this bottom-up promotion of regional governance through coordinated policy making is scenario planning—a framework that can be applied to imagine and analyze alternative futures in a participatory process. Scenario planning also enables systematic thinking about the future in terms of controllable internal choices and uncontrollable (and uncertain) external conditions. This article uses an ongoing effort called the Maryland Scenarios Project (MSP) to assess the potential of scenario planning in furthering regional governance. It compares multiple land use scenarios including extrapolation of past trends, build-out of local zoning plans, and results of a strong regional land use policy. The outcomes show different local and regional impacts under different possible futures. The analysis helps identify strategies for local governments including reacting to or collaborating with neighboring jurisdictions.

Regional Governance Structures

In the past two decades regional planning has made a comeback through new and restructured institutions that address concerns greater than those of a single jurisdiction. Regional transportation planning is a good example of a domain where such agencies have improved efficiencies in service delivery and management (Meyer 1999). Since the 1960s regional councils have existed for local governments to share concerns. Most metropolitan areas now have COGs with broad roles in regional transportation, community development, and housing, and they work with local and state agencies to coordinate interjurisdictional policy. Many COGs work closely and even overlap with MPOs, which are created for prioritizing projects eligible for federal funding dispersed through states (U.S. Code 1991, chap. 23, 10).

These agencies have well-defined regional agendas. For example, MPOs perform five core functions (Baltimore Metropolitan Council 2008): “1) Establish a setting; 2) Evaluate alternatives; 3) Maintain a long-range transportation plan; 4) Develop a transportation improvement program; 5) Involve the public.” MPO boards are typically made of local, regional, and state representatives from a range of organizations whose voting and veto powers vary regionally. The federal government funding for MPOs and their projects, in part supported by matching funds from state and local governments, originated as per provision in the Intermodal Surface Transportation Equity Act of 1991. MPOs are required to approve transportation improvement programs containing major transportation projects and ensure that these plans are consistent with federal environmental legislation and that they are financially sound.

Generally, MPOs have been successful at coordinating federal transportation spending with a regional perspective on mobility and accessibility (Klesh 2000). However, the shortcomings of
MPOs have been noted as a lack of ability to coordinate land use policy, lack of authority to raise revenues, dominance of major players, and strategic behavior leading to lack of cooperation among members (Smadi 2005). An exception to this is Portland, Oregon’s metropolitan area governed by Metro. The Metro regional government that houses an MPO has jurisdiction over the growth boundary of several counties in the region and more than twenty cities. This authority to plan comprehensively and with regional coordination is required by state law Senate Bill 100 (Oregon Legislative Assembly 1973).

But when transportation investments are made without associated land use controls, the added capacity induces people to switch modes or routes until a new equilibrium is reached. At the same time, developers respond to added capacity by creating new development along new routes. This creates a positive feedback loop that has negative consequences: more capacity is needed to respond to congestion created by sprawling development.

Similar challenges also exist in environmental planning. For example, in the Chesapeake Bay watershed, which covers almost all of Maryland, water quality is regulated through discharge limit (total maximum daily load, or TMDL) allowances to counties. New building permits are key inputs to TMDL calculations, and going over limits can lead to development moratoria. However, wide variations in effects of agricultural land and development and continuing decline in bay water quality have led to calls for an alternative regional land preservation strategy as a more efficient strategy for restoring the Chesapeake Bay (Boyd 2006).

Regionalism and Land Use Planning: A Scale Gap

Critics of existing structures have argued for coordination among multiple jurisdictions on land use through horizontal consistency and with related agencies that affect land use, such as transportation, through vertical consistency (Bengston, Fletcher, and Nelson 2004). But in the absence of a regional authority, attempts to take advantage of regional coordination through regulation of land use run into the problems of existing local government authority (Wolf and Fenwick 2003).

Consequently, while MPOs model future infrastructure improvement, taking as a given that growth will occur in accordance with projections, actual decisions about patterns of development are made in a fragmented manner by local governments (Moore, Thorsnes, and Appleyard 2007). Absent a centralized regional government empowered to control land use decisions like Portland’s Metro, an alternative is to use a framework of coordination and cooperation among local governments to shape transportation investments through a shared vision of future land use developments. In the Sacramento metropolitan area, a visioning exercise called Blueprint has been used to create a shared vision among municipalities. A coordinated land use plan was developed, and the latest regional transportation plan was coordinated.2

Norris (2001) says that regional governance may happen even without a regional government. Without forgoing local autonomy, regional governance may allow an area defined by economic, social, or environment ties to consider its collective future with regard to “fiscal disparities, social segregation, environmental problems, economic expectations, and questions about the extent to which government should try to address these issues” (Savitch and Vogel 2000, 161). Regional governance is an attempt to work for larger scale solutions within the political reality of the current government structure. Implementation of policies will then be contingent on the support of often disparate participants from local municipalities. Thus, situated within the regional governance framework, the employment of participatory processes by local governments and other stakeholders is essential for success. Scenario planning can support such processes and be a useful policy instrument for state and local governments in a regional governance framework.

Scenario Planning and Governance

In urban planning, use of scenarios and visioning exercises have a long history. Since World
War II, comprehensive planning processes have included an assessment of current conditions, an examination of future trends, and an exploration of alternative planning options. In recent years, with the evolution of technology in planning, visioning and scenario planning techniques have advanced a great deal and today involve the use of advanced GIS databases, real-time indicator analysis, and computerized polling devices (Myers and Kitsuse 2000). Even the U.S. Department of Housing and Urban Development (2010) is currently promoting scenario planning in its Sustainable Communities program.

To answer broad questions about the meaning, motives, methods, and outcomes of scenario planning, Bartholomew (2005) surveyed characteristics of eight scenario planning projects across the United States. He found wide variation: a majority of them were sponsored by MPOs (thirty-one projects) and COGs (twelve projects), while others were sponsored by nonprofit organizations (sixteen), local governments (fifteen), and state governments (seven). The participants included sponsor staff (seventy), “other stakeholders” (thirty-seven), consultants (twenty-six), elected officials (twenty-five), and citizens (twenty-two). The number of scenarios developed per project varied from two in fourteen projects to more than five in ten projects. The Federal Highway Administration–funded study also surveyed technical models and indices used in the study. They are summarized in Table 1.

Regional scenario planning efforts are usually undertaken at the county level (Gwinnett County, Georgia; Avin 2007) and may be very much larger (San Joaquin Valley, California; Cummings 2007). These planning efforts are used to engage multiple stakeholders, incentivize social learning, and build planning capacity (Harwood 2007). Some of these principles have been used worldwide in a wide variety of programs including Norwegian Long Term Program (NLTP), Sustainable Seattle, Oregon Shines, and Envision Utah (Atkisson 1996; Kissler et al. 1998; Grow and Matheson 2006). Some of these were government-led (NLTP) while others were originally public–private partnerships (Envision Utah). Sustainable Seattle started with seventy people in 1991, but its effort, with many successes, continues today. The Envision Utah process led to a successful quality growth strategy that was adopted by the Utah Legislature in 1999 and has since influenced regional and local land use decisions.

Finally, although most efforts in the past have looked at a range of futures, some end up choosing a preferred scenario as the basis for regional policy (Bartholomew 2007). Hopkins and Zapata (2007) caution against choosing a preferred scenario. They argue that as the future is inherently uncertain, there is not a single, known future that planning must accommodate.

<table>
<thead>
<tr>
<th>Variables between scenarios</th>
<th>Evaluation indices used</th>
<th>Analytical tools</th>
<th>Frequency of scenario archetypes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density of growth (76)</td>
<td>Transportation (63)</td>
<td>Travel forecasting model (47)</td>
<td>Center, cluster or satellite (58)</td>
</tr>
<tr>
<td>Location of growth (73)</td>
<td>Land use (47)</td>
<td>GIS scenario tool only (10)</td>
<td>Compact (43)</td>
</tr>
<tr>
<td>Homogeneity or heterogeneity of growth (50)</td>
<td>Air quality (33)</td>
<td>Economic model and analysis (6)</td>
<td>Dispersed or highway oriented (39)</td>
</tr>
<tr>
<td>Design of growth (25)</td>
<td>Fiscal cost (30)</td>
<td>Land use model only (4)</td>
<td>Corridor (25)</td>
</tr>
<tr>
<td>Rate or amount of growth (20)</td>
<td>Energy consumption (18)</td>
<td>Sketch travel model (3)</td>
<td>Infill or redevelopment (24)</td>
</tr>
</tbody>
</table>

Source: Bartholomew (2005).
Note: Numbers in parentheses denote the occurrence of the item in number of scenario planning projects.
Rather, there are hundreds of possible futures to which a combination of external forces and policy choices might lead.

**Scenario Planning in Maryland**

Scenario planning and visioning exercises are not new to Maryland. The first documented evidence of regional planning in Maryland was the 1937 Regional Planning Report produced by the Maryland State Planning Commission. It recognized three major centers in the region: Washington, Baltimore, and Annapolis. It anticipated the “suburban flows” and offered directions to residents in the region on land use, transportation, and public services. The report also documented spatial growth of the developed areas between 1750 and 1937. The report used such trends to create two scenarios for 1950: “without planning control” and “with planning control.” More recently, Baltimore’s Vision 2030 (Baltimore Metropolitan Council 2002) and Metropolitan Washington Council of Governments (MWCOG) Greater Washington 2050 (MWCOG 2009) have tried to think about various growth scenarios for the Baltimore and Washington metropolitan areas.

Baltimore’s Vision 2030 was a visioning exercise conducted by the Baltimore Metropolitan Council (the MPO for the region) that engaged nearly two thousand residents. The four scenarios explored were Current Trends and Plans, Emphasis on Road Capacity, Emphasis on Mass Transit, and Emphasis on Redevelopment. The greatest number of participants expressed preference for the Emphasis on Redevelopment scenario. Based on feedback from public meetings, fifteen vision statements and one hundred strategies were incorporated into Vision 2030 to provide a policy and management framework for the region in the future.

In 2008, the MWCOG convened a group called the Greater Washington 2050 Coalition. The group sought to integrate existing work: the 1998 Transportation Planning Board Vision, 2020 Regional Activity Centers, and the 2008 National Capital Region Climate Change Report. Combined with a new Scenario Thinking Workshop and a public survey called Priorities for a Growing Region, four scenarios were explored, including an extended economic recession and massive government debt, low oil prices that derail strong climate change policies, a federal government dispersal from the region, and a green industrial revolution. The process led to creation of the Greater Washington 2050 Compact, a plan that local governments were asked to sign voluntarily.

**Maryland Scenarios Project**

Vision 2030 and Greater Washington 2050 provide useful information for the Baltimore and Washington regions independently, but the approaches are not integrated and do not analyze impacts outside of their limited geographic region. Many issues that relate to land use policy and concern the broader region have been highlighted. They include:

- Persistent loss of farms, forests, and natural areas to urban growth (Lewis, Knaap, and Sohn 2009)
- Lack of progress toward revitalization of the Chesapeake Bay (Chesapeake Executive Council 2009)
- Recurring relocations by the federal government of federal jobs and facilities to suburban jurisdictions
- Increasing congestion in all forms of transportation infrastructure
- Population growth that exceeds the production of housing, especially at affordable price levels (Bratt 2008)

Since 2006, a broad scenario planning process has developed to generate and compare spatially explicit regional land use scenarios that reflect choices made by various collections of local stakeholders through participatory mechanisms. Maryland Scenarios Project (MSP), as it is called, is led by the National Center for Smart Growth Research and Education at the University of Maryland and several partner organizations. Project antecedents include Envision Utah, Chicago 2040, and numerous “Blueprint” plans by MPOs in California.
In 2006, nearly 850 selected local stakeholders from across Maryland met in large groups around the state to create maps of where a forecasted 1.5 million new people and 500,000 new jobs would locate across the state by 2030. These events were called Reality Check exercises. Following up on this, an advisory group of nearly forty technical land use and planning experts from across Maryland was convened in 2007–8 to assist in identifying the driving forces of future growth. The group discussed possible futures consistent with those driving forces (i.e., scenarios). A set of technical tools was applied to visualize the outcomes of both processes. The scenarios were compared with projected outcomes of other local or regional policies to assess how different futures will have differential impacts on and across the region. Assessing the process and its outcomes shows how scenario planning is useful in thinking regionally about land use.

The Process

A set of baseline conditions was derived using data from multiple sources such as the U.S. Census Bureau, local, state, and federal agencies, and so on, primarily to include existing population and employment density, major transportation infrastructure, government installations, and natural and protected areas. Scenarios were constructed as changes to baseline conditions. A set of four distinctly different scenarios for 2030 is selected here to draw lessons from key differences among multiple futures. The main principles behind these scenarios are summarized below.

1. **Participatory process aggregate (PPA) scenario:** The visioning exercises for local stakeholders were four events held in four separate regions of Maryland. At each event, participants gathered in groups of eight to ten around large tabletop maps of their region. Before considering where to accommodate growth, participants were asked to reach consensus on a set of principles to guide their choices. They then worked to collectively place blocks on the map representing new jobs and households out of a box representing total regional projections. Stacking and mixing these blocks created higher densities. In addition to individual table outcomes, an aggregate of all tables was developed and called a regional scenario. All the regional scenarios were finally joined and named the PPA scenario.

2. **Priority funding areas (PFA) scenario:** Also called the smart growth scenario, it was one of the many scenarios that emerged from the meetings of the scenario advisory group of land use planning experts from around the region. In this scenario, new developments were directed inside the PFAs, the primary tool of Maryland’s renowned smart growth program. To that end, state and local governments invest heavily inside the PFAs to develop and improve infrastructure and provide additional incentives to developers to locate inside. And there is strict zoning outside the PFAs. Protection of farmland on the eastern shore and of natural environments in western Maryland is also a top priority. Note that different backgrounds and time commitments of the technical group members allowed for a more path-driven view of the future in the PFA scenario than in the “what if”–like PPA scenario. The ideas of investment policies and growth controls were applied to a gravity-based land use allocation model to get the final version of the scenario.

3. **MPO scenario:** This scenario was borrowed from the traffic analysis zone level thirty-year forecasts that are available for selected counties. These counties are largely urban and in the Baltimore–Washington corridor. The forecasts for the Maryland suburbs of Washington, D.C., were provided by the MWCOC, while the Baltimore Metropolitan Council provided forecasts for the six Baltimore area counties. Note that this scenario does not cover the entire state.

4. **Zoning build-out (ZBO) scenario:** Build-out usually refers to the total capacity—meaning when you build up to total capacity as defined by current zoning, you have exhausted all opportunities for further development. Multiple assumptions
went into creating the build-out scenario—primarily that the existing zoning and policy measures stay the same. Build-outs for households and employment were estimated separately. The build-out scenario for households was based on the output of a residential development capacity analysis done using the Maryland Department of Planning’s growth model. The employment build-out was derived using linear regression analysis to estimate the number of existing jobs per unit of area of each land use category. Since the intensity of use varied significantly across the state, the state was divided into four regions, and coefficients of land use categories were estimated separately for each region. Note that this scenario is largely different from the other three, as it is not limited by forecasts or a horizon but only by assumptions about developable land supply.

It should also be noted that the different regional boundaries between the COG and other scenarios and a lack of a time horizon for the ZBO scenario lead to different amounts of new development among scenarios (Table 2). This is an issue for comparing across scenarios and limits the number of indicators for which those scenarios could be used for comparison. Nonetheless, they provide interesting and valuable information that is otherwise unavailable for this analysis.

### Evaluating Outcomes

The use of scenarios reveals different outcomes for household distribution under each scenario. While the PPA scenario has a compact growth pattern in urbanized areas and its extensions outside are contiguous, the PFA scenario is scattered, reflecting the nature (and the politics) of establishing PFA boundaries by the local jurisdictions in response to state policy. This is in greater detail in the next section. The ZBO scenario reveals that there is a greater development capacity in the rural areas of western Maryland and along the eastern shore.

Impacts of these scenarios can be measured using any number of indicators. Those presented are selected for their relevance in questions of regional coordination, especially looking at how land use in different scenarios affects demand for transportation and environmental services. Most indicators were estimated using simple spatial analysis, except two: vehicle miles traveled (VMT) was estimated by calibrating a model developed by Stone et al. (2007), and the development to impervious surface relationship was based on a model developed by Hicks et al. (2000).

A comparison of scenarios on spatial proximity indicators is shown in Figure 1. The COG scenario results are included only for the first four indicators. Development close to existing infrastructure and away from natural resources is one of the principles of smart growth. The graph shows that while the PFA and PPA scenarios increase the overall development proximity to existing infrastructure, the COG scenario slightly decreases it and the ZBO scenario decreases it the most. Every scenario decreases the percentage of development close to transit and puts some development in environmental

### Table 2. Total Households and Jobs in Baseline Conditions and Scenarios

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Household</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline (2000)</td>
<td>1,867,394</td>
<td>2,892,851</td>
</tr>
<tr>
<td>PPA and PFA (2030)</td>
<td>2,751,783</td>
<td>4,443,897</td>
</tr>
<tr>
<td>COG (2030)</td>
<td>2,236,889</td>
<td>3,531,655</td>
</tr>
<tr>
<td>ZBO (no horizon)</td>
<td>3,207,597</td>
<td>4,859,336</td>
</tr>
</tbody>
</table>

Note: PPA = participatory process aggregate; PFA = priority funding area; ZBO = zoning build-out; COG = council of government.

### Figure 1. Comparing proximity-based indicators
resource lands, perhaps a reflection of the low land availability near existing transit and growth pressures on unprotected resource lands. While the PPA scenario indicators show that the participants in the visioning exercises showed an overall preference for compact development, the rest of the outcomes are consistent with expectations.

New development also leads to new trips and demand for new roads and new impervious surfaces. Figure 2 shows these impacts by scenarios. Again comparing PPA and PFA, it shows that development has its impacts, but the location of development in a region matters to demand on transportation infrastructure and environmental resources. While the difference in new VMT is little, the amounts of new lane miles needed and new impervious surfaces created are much higher in PFA than in PPA scenarios. This, again, reflects the dispersed nature of PFAs and suggests that PFAs allow less compact development from a regional perspective, an observation confirmed in a new study on the effectiveness of PFAs (Lewis, Knaap, and Sohn 2009).

Finally, the locational differences among scenarios are best understood by comparing them on a county-by-county basis. The counties with the highest and lowest standard deviations in acres of land per person are shown in Table 3. It shows, as expected, that on the whole more urbanized counties such as Baltimore City and Montgomery County are less affected by growth when compared to rural counties such as Garrett and Dorchester Counties. This is not surprising given urban counties have a much higher existing household total. However, comparing among the scenarios, a high degree of variation is seen from county to county. Land area per person declines less in the PFA scenarios for urban counties than it does for rural counties, while the opposite is true for the PPA scenario. The COG scenario actually shows an increase in land area per person in Baltimore City because of a projected decline in population. The ZBO scenario shows the worst declines in rural areas because of availability of developable land.

**Lessons for State and Local Governments**

The analysis shows that some trends are common across multiple futures and space while others are more specific in their spatial and temporal manifestations. Identifying these trends may help local governments make better plans, those that address wide and likely impacts of the future, while preparing for other alternative issues and forces. At the same time, understanding how they will affect neighboring jurisdictions and the region as a whole will help local government develop strategies to cope (or collaborate) with regional and neighboring jurisdictions’ actions. In illuminating these differential impacts, scenario planning is useful for tackling large-scale regional problems.

Analysis of four distinct scenarios showed that urban areas such as Baltimore City do not show much difference in urbanization rate and attendant indicators even when they receive higher population and employment in compact development scenarios. There is a lot of developable land in the periphery, which can get more attractive with an increasing population and employment opportunities. Policy responses are needed to address challenges rising from such development. The state’s PFA strategy is in fact quite dispersed from a regional perspective. The MPO projections do not cover many areas where regional interdependencies can significantly alter trends in areas inside the MPO regions.
More regional analysis is needed to understand
the challenges and opportunities present from
such growth and responsiveness of policies to
steer the growth effectively.

For Maryland, these results must be inter-
preted carefully. MSP is an ongoing process,
and none of the results are the product of highly
refined and calibrated models. Still, the results
strongly suggest that there is merit to thinking
about land use scenarios on a regional scale, one
that is larger than the Baltimore and Washington
metropolitan areas. Quite clearly, transportation
investments in Washington affect traffic and
land use patterns in Baltimore and other parts
of Maryland, and vice versa. Furthermore,
changes in external conditions such as energy
prices and federal spending may be built into the
scenario development process to test how they
affect overall growth and its regional shares.
Finally, land use scenarios can present lessons
for related fields; for example, impervious sur-
face results can be extrapolated to test strategies
for watershed planning for the Chesapeake Bay
watershed.

### Discussion

Often scenario planning processes have led to
linear choices among futures that run from
“business as usual” to “radical change.” This
sort of scale of desirability frequently leads to
predictable and predetermined results. Though
observable in the early stages of MSP, this
outcome was avoided by using multiple paths
and technical models to develop a range rather
than a scale of scenarios. Among the lessons
learned from this process is the questionable
value of a single-projection-driven planning
process and the desirability of using fixed
regional boundaries, both assumptions inher-
ently biasing many modeling processes.

Scenario planning can be a useful tool for
regional governments, as seen in its application
in transportation planning. Such applications
can be made more illuminating by thinking of
futures as uncertain and beyond decision mak-
ers’ control. Then multiple possible outcomes
may be responded to with multiple plans instead
of choosing the unavailable option of a single
desirable future.

For regional governance in land use to be
effective, however, a process is needed that
conveys the benefits of regional thinking with-
out forgoing local authority. Scenario planning
can be that process. The scale of a scenario
planning process can range from a county to a
metropolitan region, state, or even multistate
region.

The objectives of the planning process should
be agreed on in advance and will inform both the
scale of the endeavor and the range of particip-
ants. While in some cases the objective is the
formation of policy by participant stakeholders,
in other cases the objective is the dialogue created
by the process itself. Scenario planning may also
bring together stakeholders who would not

### Table 3. Land Area (in Acres) per Person

<table>
<thead>
<tr>
<th>County</th>
<th>Baseline</th>
<th>PPA</th>
<th>PFA</th>
<th>COG</th>
<th>ZBO</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltimore City</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.3</td>
<td>0.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Montgomery</td>
<td>1.0</td>
<td>0.8</td>
<td>0.9</td>
<td>0.7</td>
<td>0.7</td>
<td>0.1</td>
</tr>
<tr>
<td>Prince George’s</td>
<td>1.1</td>
<td>0.8</td>
<td>0.9</td>
<td>0.8</td>
<td>0.8</td>
<td>0.1</td>
</tr>
<tr>
<td>Baltimore</td>
<td>1.5</td>
<td>1.1</td>
<td>1.3</td>
<td>1.1</td>
<td>1.1</td>
<td>0.2</td>
</tr>
<tr>
<td>Howard</td>
<td>1.9</td>
<td>1.4</td>
<td>1.6</td>
<td>1.5</td>
<td>1.3</td>
<td>0.2</td>
</tr>
<tr>
<td>Caroline</td>
<td>20.6</td>
<td>11.5</td>
<td>6.9</td>
<td></td>
<td>7.0</td>
<td>6.4</td>
</tr>
<tr>
<td>Kent</td>
<td>30.6</td>
<td>16.5</td>
<td>7.4</td>
<td></td>
<td>8.1</td>
<td>10.8</td>
</tr>
<tr>
<td>Somerset</td>
<td>26.9</td>
<td>16.4</td>
<td>4.6</td>
<td></td>
<td>4.0</td>
<td>10.9</td>
</tr>
<tr>
<td>Dorchester</td>
<td>41.5</td>
<td>22.7</td>
<td>12.6</td>
<td></td>
<td>10.1</td>
<td>14.3</td>
</tr>
<tr>
<td>Garrett</td>
<td>39.0</td>
<td>19.4</td>
<td>9.2</td>
<td></td>
<td>2.4</td>
<td>15.9</td>
</tr>
</tbody>
</table>

Note: PPA = participatory process aggregate; PFA = priority funding area; COG = council of government; ZBO = zoning build-out.
otherwise interact, creating connections and building capacity for future action.

Finally, it is important to understand the limitations of regional governance in terms of evaluating its outcomes. Participants of a scenario planning process situated within a regional governance framework must return home to their constituents and convince them to implement the agreed-on plan (Norris 2001). Thus, while it may be commonplace to agree on normative values regarding the future of a region, actually implementing policies that may mean giving up local powers or tax revenue presents another problem entirely. This highlights the need to be clear about the goals of the process. While implementable outcomes may not be feasible in early stages, a scenario planning process can be a way to create a dialogue about a shared future that stakeholders can continue with their respective constituents, helping to forge a regional identity that can then be tapped in drafting local solutions to regional problems.

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Notes

1. For more detailed descriptions of metropolitan planning organizations, please look at the Association of Metropolitan Planning Organizations Web site at http://www.ampo.org/.
2. More information about the Sacramento metropolitan region’s Blueprint planning process can be found at http://www.sacregionblueprint.org/.
3. These activity centers are used later in this article to analyze the different development impacts.

References


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**Bio**

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