



# STRATEGIC ASSESSMENT AND PLANNING FOR SUSTAINABLE DEVELOPMENT

AMIR AL-KHAFAJI<sup>1</sup>, SESHADRI GUHA<sup>2</sup>, and LAITH AL-KHAFAJI<sup>2</sup>

<sup>1</sup>*Dept of Civil Engineering and Construction, Bradley University, Peoria, USA*

<sup>2</sup>*CGN Global, Peoria, USA*

The Peoria Sustainability Commission (PSC) was formed in late 2008 with the mission “to transform Peoria into a community that promotes social equity, green economy, and a healthy environment.” Planning for sustainable development in Peoria required a strategic assessment and analysis of the prior work of similar commissions and interests of various stakeholders. Multiple meetings of diverse sets of stakeholders were held to identify critical issues, gaps, barriers, and drivers of success, and to coalesce around central themes to formulate key strategies for sustainable development in Peoria. These meetings revealed that a lack of focus and interdependencies between initiatives led to fragmentation and limited the opportunities for success. For example, the competition for school districts with higher-quality education led to increased sprawl and migration of population from downtown areas to the suburbs. The concomitant shrinking of the urban tax base in turn reduced the resources available for investment and improvement, resulting in a potential downward spiral in many cities, including Peoria. The long-term strategy of the PSC to address critical issues, barriers, drivers of success, and develop key strategies for the Peoria region is presented here.

*Keywords:* Peoria sustainability commission, Objectives, Gaps, Stakeholders, Education, Strategic plan.

## 1 BACKGROUND AND CONTEXT

The definition of “sustainability” from the Brundtland report (United Nations General Assembly 1987) is widely quoted as “*sustainable development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*” The organizing principle for sustainability is sustainable development, which includes the four interconnected domains: ecology, economics, politics and culture (James 2015). Sustainability can also be defined as a socio-ecological process characterized by the pursuit of a common ideal (Wandenberg 2015). Traditional textbook definitions of “sustainability” identify general principles on sustainable development including economic, social development and environmental protection (Liam *et al.* 2013). The Peoria Sustainability Commission (PSC) decided to pursue a new way of thinking by embracing a strategy that helps change behavior. The commission focused on the following objectives:

- i. **Vision:** Provide a stimulus to recognize the need for collaboration between neighborhoods, community leaders, and government official to create a better future.
- ii. **Strategy:** Thinking beyond stakeholders’ immediate needs and focusing on the long-term.

- iii. **Guiding principles:** Emphasizing social, environment, and economic development.
- iv. **Idea Generation:** Articulating the need for a holistic solution, and soliciting input from cross-functional representatives.
- v. **Scope:** The areas where the City of Peoria can have direct impact (policies, codes, standards, incentives, resources, grants) and those that should originate from other areas in the city (neighborhood, business, church, etc.).
- vi. **Evolution:** Need a flexible commission that evolves/pivots based on lessons learned, but remains steadfast in its objectives.

Six subcommittees of PSC formulated ideas and recommendations targeted towards improving sustainability in their focus areas. Strategic assessment was done by analyzing results from work by similar commissions in the past and by assessing stakeholders' inputs in the current study. Multiple meetings with diverse groups of stakeholders on the PSC helped identify the critical issues and barriers to sustainable development, including the gaps between the status quo and goals/targets. A unique sustainability model was developed based on this information. A cross-linked comprehensive PSC framework, comprising of stakeholders, partners, and decision-makers from the Peoria region and beyond, was created to develop the sustainable development plan. Key issues, barriers and drivers for sustainable development for Peoria were identified through the PSC framework and are presented here.

## 2 SUSTAINABILITY CONCEPTS APPLIED TO PEORIA

A truly sustainable region should ideally embrace all three dimensions of sustainability or risk imbalance leading to failed projects and initiatives. The PSC Model shows that energy and momentum of innovation occurs at the interfaces between these dimensions as in Figure 1. Key issues for each dimension of sustainability are identified below along with potential solutions for the PSC to address them, based on the outcomes of these meetings. Key social issues were: *citizen physical and mental health* (targeting obesity, identifying preventable diseases, and providing access to health care), *crime rate* (combating violent crime and drugs with law enforcement partners, developing community neighborhood watch programs), *a socially attractive environment* (by development of pocket parks, providing access to nature, promoting local food), and *equity/diversity* (working with government partners and contractors to address issues relating to disadvantaged business enterprises, education). Key economic issues were: *jobs* (working with all stakeholders to double downtown jobs), *training* (working with local businesses and government to enhance quality of labor force through education and training grants), and *sustainable city development* (working with city government and developers to revamp city design, improving public transit and transportation, increasing urban density and developing self-sustaining sectors). Key environmental issues were *green buildings* (working with all stakeholders to develop achievable targets), *clean water/air* (working with city, state, and federal agencies to set targets for drinking water, CSOs, ambient air quality), and *zero waste* (working with the entire community to reduce, recycle and reuse: make measurable progress towards achieving the zero-waste long-term target).

All sustainability initiatives should ideally generate positive economic outcomes. Similarly, all major economic investments in the region should further the social and environmental sustainability of the region. This approach makes the sustainability efforts self-reinforcing. It is anticipated that in the long-term, sustainability projects will drive economic vitality in the region, which will in turn increase investments in sustainability.

The overall framework of the sustainability commission and stakeholders proposed by the PSC is: Commission Executive (CE), Commission Group (CG), and Community Partner (CP). The CE is responsible for the strategy and directing the sustainable development effort for Peoria. The CG structure has four major commission groups focused on Environment, Transportation, Development, and Social issues and initiatives. The Community Partners are involved in Policies, Codes & Standards, Incentives, Resources & Grants, Metrics & Economic Analysis, and Education, Awareness & Branding work.



Figure 1. The city of Peoria sustainability model.

### 3 KEY ISSUES AND BARRIERS TO SUCCESS

The following key issues and barriers for long-term sustainable development in Peoria came to light in the planning process and in stakeholder meetings. A key issue for the Peoria region is the question of *regional vs. local*. Social, economic, and environmental interdependence exists across the entire region surrounding Peoria. Therefore, it is essential that the PSC address the issues across the entire region to develop a shared vision, policy and implementation structure. PSC has the opportunity to transform potential conflicts into common interests and synergies for all players. For example, it is important to weigh corporate priorities against environmental priorities, consider major role players at the city vs. county or regional levels, and balance economic growth and cost with sustainability. Another key issue is considering the *holistic view*. Lack of focus on interdependencies between initiatives, drivers, and efforts leads to fragmentation and limits the opportunities for synergy. While each Commission Group (e.g., Environment CG or Transportation CG) focuses on their functional areas, there is a critical need to consider the opportunities and implications on other Commission Groups and evaluate the projects based upon total economic cost and impact (TEC and TEI) to the region. Examples of initiatives with potential to incorporate a holistic view include: the Heartland Water Resources Council (HWRC) Mud-for-Jobs (with consortium of banks to have Federal Reserve Board approve \$1B low-interest loans for jobs and to elevate quality of life for central Illinois citizens), Upper Mississippi Basin Healthy Watersheds Initiative (identification of approved tributaries draining into Peoria Lakes), and the iCarPool program.

The third key issue is that of *education and school districts*. Enrollment in Peoria School District 150 directly affects the greater Peoria metropolitan area and thus impacts the economic sustainability of the city. Competition from neighboring suburban school districts has led to a migration of population away from the downtown area – an issue common to many cities across the nation. This trend decreases the tax base in the city, which in turn reduces the resources available for investment and improvement, resulting in a potential downward spiral for the education and economics of the school district and the city. New community initiatives are

needed to increase parental involvement/participation to better integrate home-life and academic performance of students. A fourth key issue is *economic focus*. The success of a long-term sustainable development requires that ideas and recommendations from the PSC be fundamentally driven by economic feasibility and attractiveness. At the same time, the PSC should drive policy and communication that will motivate economic activity in the region to be proactively aligned with sustainability principles whether in construction, manufacturing, or even consumption. Initiatives should also account for clear focus and prioritization on visible and “burning” issues within the community in order to make sustainability relevant to the stakeholders and citizens of the region. For example, the economic impact of the CSO program has been considered along with environmental quality (human health) and social impacts (public use of water resources). Finally, although *healthcare* is not specifically identified as a sustainability priority within the existing Commission Groups, it is nevertheless a key issue that warrants urgent attention. Given the growing cost of Healthcare and the economic implication of Healthcare as a percentage of GDP (estimated to grow from 17% of GDP to 27% of GDP in 10 years), there is little doubt that healthcare will impact economics and social dimensions of the sustainability triad significantly. *Quality of Life* requires adoption of a proactive approach to Healthcare to ensure long-term sustainable development.

#### 4 DRIVERS OF SUCCESS

It is critical that an action plan contain short-, mid-, and long-term initiatives. In the short-term, implementing *quick wins* (easily achievable targets) are likely to build momentum, capture the interest and imagination within the region, and lead to greater buy-in and participation. Simultaneously mid and long-term initiatives that produce greater impact and structural change are likely to strengthen sustainability. Incorporating best practices from other urban communities may help accelerate sustainability outcomes within the Peoria region. Finally, the unique capabilities, challenges and opportunities within the region need to be considered in creating a customized sustainability strategy for the region.

One driver of success is *Policies (Regulations), Codes & Standards*. The Peoria region has nearly no regulations that drive sustainability. Yet, regulations are one of the powerful dynamic levers that can be used to make the region increasingly Green. Care is needed in setting policy so as to find the right balance to drive sustainability without becoming an obstruction to the economic dimension, acting as a barrier or deterrent to new companies, jobs, or talents, or causing existing economic entities to leave the region, as shown in Figure 2. The second driver of success is *Incentives, Resources & Grants*. Significant sources of funds designated towards sustainability are available between federal, state and other organizations to drive recommended initiatives but the Peoria community and region has not fully leveraged the funds and opportunities available.

The third driver is *Metrics & Economic Analysis*. Additional metrics (in addition to economic impact) are essential for target setting and measuring progress to provide continued motivation and demonstrate improvement. Benchmark studies of communities with more advanced sustainability programs may provide insight into key metrics and estimated timeline for improvement. Finally, the fourth driver identified in this study is *Education, Awareness & Branding*. One of the critical levers of sustainability is education/awareness, which is powered by marketing and promotion. Educating policy-makers, consumers, and business leaders, on the implications of their decisions and the benefits of choosing the sustainable option will drive behavioral change in the direction of sustainable development.

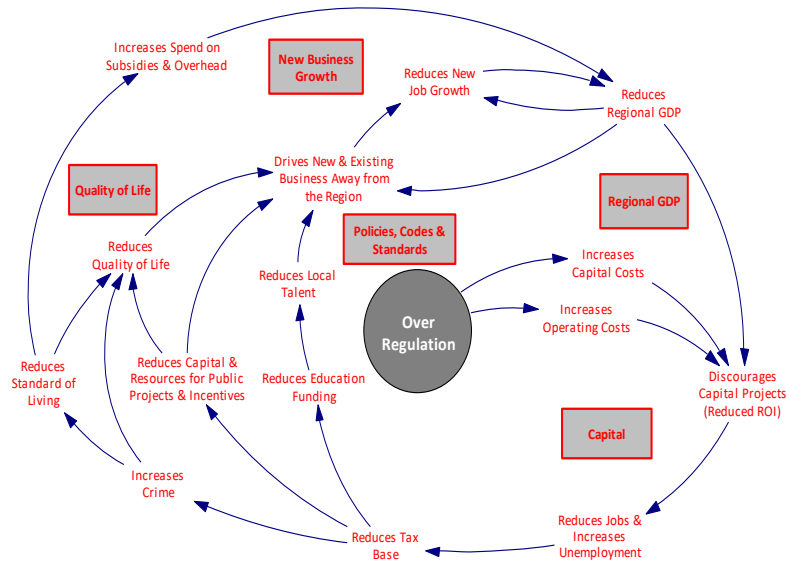


Figure 2. The adverse effects of over regulation on business development.

## 5 THE PATH FORWARD

Expansion of the scope to include the region as opposed to just Peoria allows for more cohesive and comprehensive planning and execution as well as greater impact. Preliminary discussions have indicated that stakeholders are agreeable and even eager to expand the scope. Some additional effort may be required to align the region with the shared vision of the PSC and revise as necessary. Additional stakeholders from across the region were to be added to the PSC. The objective is to blaze a path forward for the entire region. The framework proposed by PSC includes: Commission Executive, Commission Group (CG), and Regional Partner (RP). The overall structure is a cross-matrix of CGs and RPs under the Commission Executive, as shown in Figure 3. The four RP groups work across all four primary CGs to enable and support each functional/vertical group. These groups continue to mature and to seek new opportunities with the possibility of adding a new CG focused on healthcare. Each CG is focused on its specific areas but all CGs have the same high-level roles and responsibilities to drive PSC towards achieving its objectives. In order to enhance the evaluation process, each CG is responsible for leveraging the expertise of all the RPs to better understand the opportunities and implications while simultaneously considering the overall interests of the region. Thus, understanding the impact each recommendation has on the other CGs is critical both to identify and leverage synergies and to avoid recommendations that would be detrimental on the broader scale.

The final outcome from each CG will be a prioritized list of initiatives containing an appropriate mix of short, mid, and long-term projects and an implementation plan to execute the top priority projects. Due to the collaborative nature of the cross-matrix structure, each group achieves greater visibility of the interdependencies both between CGs and between RPs. This drive improved recommendations for the region as a whole and reduces potential conflict later in the planning process. The use of a combination of regulations and incentives is essential to drive behavior and economic impact. Regulations and incentives should ideally be regional (not limited to Peoria) and influence corporations and consumers through economic drivers to redirect capital, production, and consumption. Through collaboration and leveraging the expertise of the Regional Partners, each Commission Group develops a thorough understanding of each project,

including objectives, stakeholders, obstacles, relevant levers, economic impact, key metrics, activities and milestones. The Commission evaluates their portfolio of projects and establishes priorities based on financial feasibility to create a roadmap to achieve regional sustainability.

		Commission Groups				
		Environment	Transportation	Development	Social	Deliverables
	<b>Members</b>	<ul style="list-style-type: none"> <li>• Chair / Co-Chair</li> <li>• Core Members</li> <li>• MP1</li> <li>• MI1</li> <li>• MM1</li> <li>• ME1</li> </ul>	<ul style="list-style-type: none"> <li>• Chair / Co-Chair</li> <li>• Core Members</li> <li>• MP2</li> <li>• MI2</li> <li>• MM2</li> <li>• ME2</li> </ul>	<ul style="list-style-type: none"> <li>• Chair / Co-Chair</li> <li>• Core Members</li> <li>• MP3</li> <li>• MI3</li> <li>• MM3</li> <li>• ME3</li> </ul>	<ul style="list-style-type: none"> <li>• Chair / Co-Chair</li> <li>• Core Members</li> <li>• MP4</li> <li>• MI4</li> <li>• MM4</li> <li>• ME4</li> </ul>	
	<b>Policies, Codes &amp; Standards</b>	<ul style="list-style-type: none"> <li>• Chair/Co-Chair</li> <li>• MP1</li> <li>• MP2</li> <li>• MP3</li> <li>• MP4</li> <li>• ...</li> </ul>	<ul style="list-style-type: none"> <li>• Determine the policies critical to each Commission Group, recommendation, and partner</li> <li>• Obtain cross-funcnpl perspective and drive policy synergies</li> <li>• Identify, raise, and assist in resolving policy conflicts</li> <li>• Ensure policy balance and consistency to avoid overabundance of "rules"</li> </ul>			<ul style="list-style-type: none"> <li>• Critical Policies, Codes &amp; Standards across:                             <ul style="list-style-type: none"> <li>• Projects</li> <li>• Commission Groups</li> <li>• Regional Partners</li> <li>• Example Topics: Zoning, Subdivision Development...</li> <li>• Critical recommendations</li> </ul> </li> </ul>
	<b>Incentives, Resources &amp; Grants</b>	<ul style="list-style-type: none"> <li>• Chair/Co-Chair</li> <li>• MI1</li> <li>• MI2</li> <li>• MI3</li> <li>• MI4</li> <li>• ...</li> </ul>	<ul style="list-style-type: none"> <li>• Identify sources of funding for sustainability from municipality, city, county, state, federal and other organizations and understand funding models</li> <li>• Learn best practices in areas such as grant-writing, completing applications, etc. and teach to the broader PSC</li> <li>• Identify targeted funding and/or incentives opportunities for specific recommendations</li> </ul>			<ul style="list-style-type: none"> <li>• Keysources of funds and grants for sustainability initiatives</li> <li>• Critical contacts for resources</li> <li>• Funding models</li> <li>• Municipality, city, county, state, and federal financial incentives &amp; tax relief</li> </ul>
	<b>Metrics &amp; Economic Analysis</b>	<ul style="list-style-type: none"> <li>• Chair/Co-Chair</li> <li>• MM1</li> <li>• MM2</li> <li>• MM3</li> <li>• MM4</li> <li>• ...</li> </ul>	<ul style="list-style-type: none"> <li>• Identify top-tier metrics for sustainability</li> <li>• Research world-class sustainability communities as benchmarks</li> <li>• Baseline individual metrics for the region</li> <li>• Assist Commission Groups in building a reasonable Roadmap for each metric</li> <li>• Create an Economic Model to evaluate the Total Economic Cost (TEC) and Total Economic Implications (TEI) of recommendations</li> </ul>			<ul style="list-style-type: none"> <li>• Top-tier metrics for sustainability</li> <li>• Baseline &amp; Benchmarks for each metrics</li> <li>• Timeline / Roadmap for individual metrics</li> <li>• Economic Model(s) to assess total economic implications</li> </ul>
	<b>Education, Awareness &amp; Branding</b>	<ul style="list-style-type: none"> <li>• Chair/Co-Chair</li> <li>• ME1</li> <li>• ME2</li> <li>• ME3</li> <li>• ME4</li> <li>• ...</li> </ul>	<ul style="list-style-type: none"> <li>• Identify critical stakeholders in the region</li> <li>• Collaborate with both Commission Groups and Community Partners to understand what content needs to be communicated</li> <li>• Research and leverage current education opportunities and resources</li> <li>• Plan and implement activities such as workshops for K-12, specialized LEED training programs, major conferences, educating the educators, website maintenance and enhancement, annual reporting....</li> </ul>			<ul style="list-style-type: none"> <li>• Critical stakeholder groups in the region like policy-makers, business leaders...</li> <li>• Targeted plan to communicate the outcomes of the PSC to the stakeholders including the likes of policies, metrics, incentives and projects</li> <li>• Communication plans including annual report, digital media, workshops, training programs, and conferences to drive awareness and education across stakeholders</li> </ul>
	<b>Deliverables</b>	<ul style="list-style-type: none"> <li>• Best Practices &amp; Lessons Learned from Other Communities</li> <li>• Project Planning Documents – Goals / Issues / Metrics / Action Plan / Impact...</li> <li>• Portfolio Planning Documents – Objectives / Metrics / Project Evaluation...</li> <li>• Top Projects (Prioritized) – Short, Mid &amp; Long-Term Mix</li> <li>• Implementation Plan – Actionable Plan with start dates, milestones...</li> </ul>				

Figure 3. The city of Peoria sustainability commission structure.

## 6 CONCLUSION

The Peoria Sustainability Commission developed a new sustainability model based on the needs of the City of Peoria and the central Illinois region. The strategic assessment and planning is achieved through three groups: the Commission Executive, Committee Groups, and Community/Regional Partners. The Commission Executive develops the vision, helps identify and drive synergies across Committee Groups and Partners, and facilitates regular and open communication and conflict resolution. Through this framework, several key issues were identified to achieve sustainable development. Barriers and drivers for success were identified so that the appropriate stakeholders can be engaged to resolve issues. Bringing in business and community leaders as partners into the process has considerably improved the process.

## References

- James, P., Magee, L., Scerri, A., Steger, and Manfred B., *Urban Sustainability in Theory and Practice*, Routledge Press, London, UK, 2015.
- Liam M., Scerri, A., James, P., Thom, J. A., Padgham, L., Hickmott, S., Deng, H., and Cahill, F., Reframing Social Sustainability Reporting: Towards an Engaged Approach, *Environment, Development and Sustainability*, 15 (1), p. 225–243, February 2013.
- United Nations General Assembly, *Report of the World Commission on Environment and Development: Our Common Future*. Transmitted to the General Assembly as an Annex to document A/42/427 – Development and International Co-operation: Environment, 1987.
- Wandenberg, J.C., *Sustainable by Design*, CreateSpace Independent Publishing Platform (Publishers), p. 122, 2015.