Concluding Remarks: Future of Sustainability and Resilience Planning

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"Human beings are not bound to an ecosystem or territory by instinct or physiology. Our large and complex brain enabled us to learn about and exploit our surroundings and to shape our environment so that we could live within it. Our adaptability has enabled us to survive and flourish in environments as extreme as deserts and the Arctic Tundra, as well as prairies, wetland, forests, and mountain slopes. Today that adaptability has reached astonishing levels as technological development and accelerate." Page 60, Suzuki, D. (2010) The Legacy: An elder's vision for our sustainable future

Key Questions

The eighth and the final chapter of this book aims to summarize previous sections and attempts to address the following underlying premises and topics.

- What is the future of resilience and sustainability in communities and organizations?
- Beyond climate change what challenges and barriers will cities, townships, villages, and counties face in the future?
- How can local governments maintain a sustainability and resilience planning momentum?
- How can resilience be and remain embedded within organizations?

Introduction

Sustainability and resilience planning addresses the complexities and dynamics of the interconnected systems. Local government leaders around the globe seek to provide holistic, systematic, and innovative solutions for service delivery to their residents and businesses. Cities attempt to maintain and enhance their assets, the environment and human resources. Modern administrators design municipalities and the support systems

from energy to transportation to address the local communities' needs and to also enhance sustainability and resilience of those cities stemming from security threats, emergencies, and climate change. Leading complex systems requires a systematic approach to problem-solving (Alibašić 2018b).

The Current Context for Sustainability and Resilience Planning

The United States' decision to withdraw from the Paris climate accord enabled the elected and appointed officials in the US cities and some states to step up their efforts to address climate change threats. Local governments have an administrative obligation to address and prepare for the climate change-related impacts. While the numbers on world energy use and carbon emissions vary from source to source, they are staggering in size. Cities are responsible for over 75% of the world's energy use and emit more than 75–80% of all greenhouse gas emissions, mostly CO_2 (Satterhwaite 2008). In meeting their goals and objectives to increase the resilience of communities, local governments face various obstacles beyond financial obligations

and challenges. Administrators make the necessary readjustment to planning of cities with an emphasis on building resilience. Most initiatives by local governments are aimed at reducing the GHG emissions, mitigating the impact of climate change and adapting to new climate realities, using cutting-edge approaches to climate resilience in cities.

By incorporating climate preparedness into their sustainability plans, strategic plans, and emergency action guidelines, cities are able to better withstand negative impacts from extreme weather events and climate change. The sustainability and resilience planning takes into consideration all the elements of the local government's systems for service provisions, including power, infrastructure, buildings, health, and safety, and incorporates them into a single resilience plan. This integrated, multi-modal, multi-system approach is described in Fig. 8.1, where the elements and processes of climate mitigation and adaptation are interspersed and connected. The Fig. 8.1 represents the Quadruple Bottom Line approach to resilience planning with the social, economic, environmental, and governance pillars successfully integrated into the strategic process. The key components include the community engagements, partnerships, reporting, and continuous improvement. Administrators within their organizational and leadership capacity have a vested interest in continuous improvement and adoption of strategies to address various stressors as they better prepare for disasters. Failure to pursue long-term resilience could have far-reaching adverse consequences on organizations and communities in case of natural disasters and crises.

The Future of Resilience and Sustainability Planning

The primary drivers of thriving sustainability and resilience programs is the ability of communities and organizations to transform and adapt to the changes in the environmental, societal, governing, and economic conditions surrounding them. In describing the culture strategy, Osborne and Plastrik (1997) posited the "organizations have

distinctive personalities," adding "like people, some organization are energetic, creative, or caring, while others are depressed compliant, or neglectful," concluding that "and like personalities, organizational cultures are very hard to change" (p. 255). The cultural changes that are necessary from within and from outside are critical for successful implementation of sustainability and resilience in organizations. Both the private and the public sector organizations use sustainability to address their constituents' needs and demands. However, "government organizations are creatures of the political sector," and "inevitably are the target of incessant public demands channeled through elected officials" (Osborne and Plastrik 1997, p. 257).

Cities' leaders are engaged in sustainability and resilience to continue to thrive and provide quality of life services as revenues shrink. Local government officials are aware of the complex nature of cities and design programs to address the sustainability of organizations and to enhance resilience of communities to security threats, natural catastrophes, emergencies, and climate change. Sustainable development was defined by the Brundtland Commission, also known as the World Commission on Environment and Development (WCED) as "meeting the needs of today without comprising the ability of future generations to meet their own needs" (United Nations General Assembly 1987). In essence, sustainability may be viewed as an attempt by organizations and individuals to minimize the negative consequences of their activities on the social and environmental facets of the society while improving governance and maximizing the economic gains. At the same time, resilience may be defined as an extension and expansion of sustainability efforts in recognition of existential threats of climate change.

Sustainability and resilience planning enables organizations to use a multifaceted, cross-sectoral approach for the betterment and operational efficiency of organizations around the globe, from cities to multinational corporations. Local governments in their organizational and leadership capacity will continue to implement resilience and sustainability strategies to address environ-
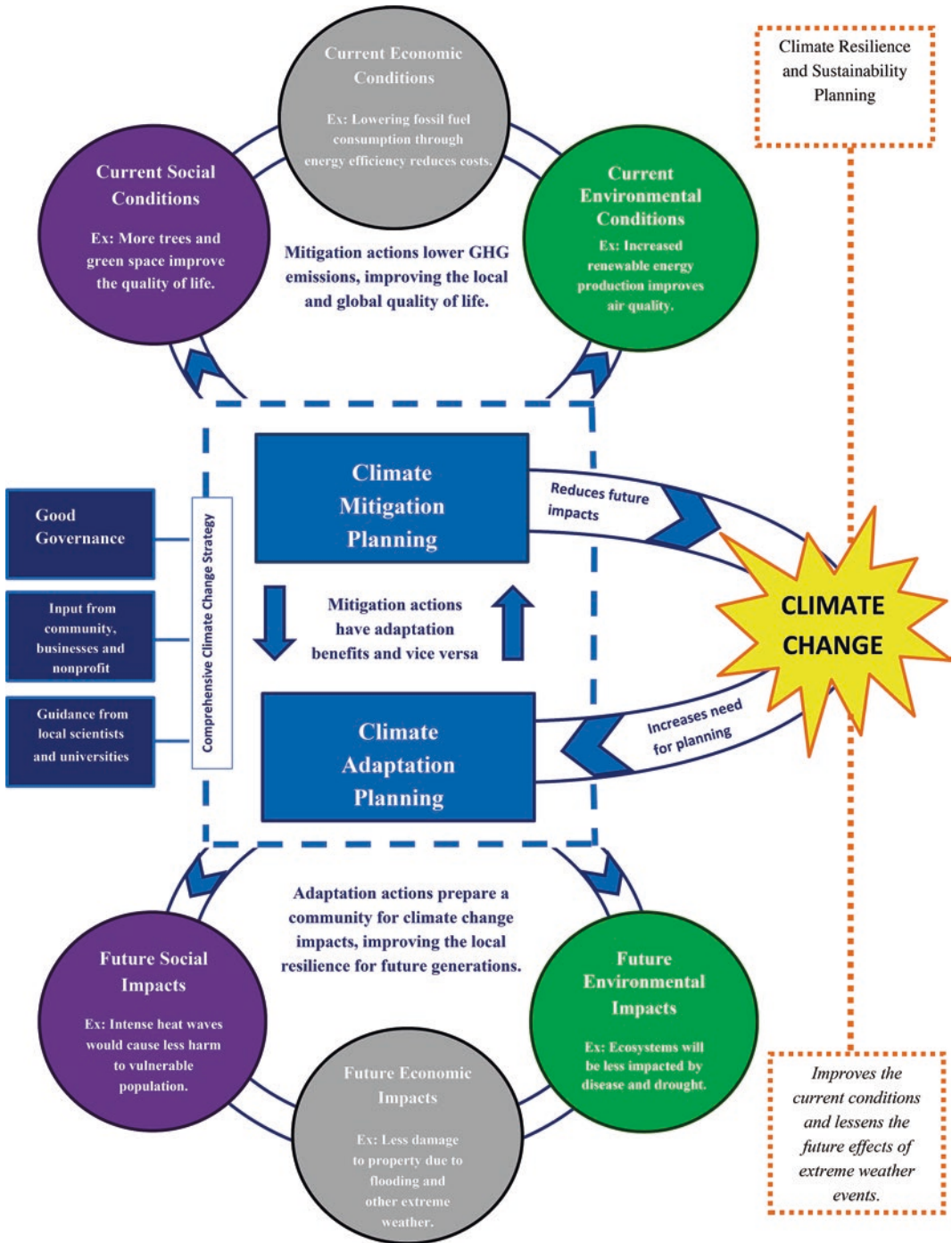
Fig. 8.1 Resilience planning through climate mitigation and adaptation strategies

mental, social, economic, and governance issues, stemming from climate change and natural disasters. Communities and organizations viewed through the system lens offer practical solutions through active utilization of sustainability and resilience programs and policies. Often, without a system-wide approach. the practical applications of sustainability and resilience are lost in the administrative and collective nuances. The sustainability and resilience planning approach yields multiple benefits to organizations and communities, summarized as addressing complexities, allowing adaptability and innovation, and encouraging good governance and responsiveness.

1. *Sustainability and Resilience Planning Addresses Complexities and the Modern Dynamics of the Interconnected Systems.* Local government leaders seek holistic and innovative solutions in an attempt to maintain and enhance the organizational assets, the environment and human resources. The complex nature of cities require the integrated approach to transportation, energy, and other elements of resilient communities to address and to enhance resilience initiatives from security threats, extreme weather, fiscal pressures, emergencies, and climate change. Leading complex systems requires a systematic approach to problem-solving.

2. *Sustainability and Resilience Planning Allows Adaptability and Innovation in Organizations.* Sustainability and resilience planning offers an opportunity for organizations to adapt to changing circumstances surrounding organizations. In its effort to provide innovative solutions, local community administrators integrate a holistic approach to service delivery. Furthermore, "modern organizations design their systems using effective sustainability strategies to withstand external and internal pressures for maximum resiliency in dynamic environments, as defined by the threats of climate change, global warming, and growing existential economic, environmental, governance, and societal pressures" (Alibašić 2018a , p. 1).

3. *Sustainability and Resilience Planning Encourages Good Governance and Responsiveness*. Changes in the external and internal organizational factors and societal priorities lead to increased responsiveness, identified priorities, and shared responsibilities, adjusted approaches undertaken by leadership in responding to demands and engaging on issues. Local governments invest in long-term sustainable and resilient initiatives to improve overall effectiveness and efficiency of the organizational service delivery with a solid return on investment. As an illustration, cities invested heavily in sustainable energy. Besides, "sustainable energy policies, programs, and projects at the local and state levels of government represents an inevitable challenge, but also a conceivable opportunity" (Alibašić 2017b, p. 1).

Summary

The research presented in this book goes beyond theoretical and practical framework and postulates to provide an overview for thriving and lasting sustainability and resilience planning. The research builds and relies on a vast body of already existing literature in the field of sustainability and climate resilience, with specific functional design features for elements necessary for development and application of sustainability and resilience initiatives and programs. Additional, in-depth review of existing programs, resilience plans, sustainability and climate action efforts was provided. The previous seven chapters provided the detailed outline to initiating, developing, and implementing a sustainability and resilience plan, with the following elements outlined:

- Understanding the differences and similarities between sustainability and resilience
- Initial mapping out the sustainability and resilience processes for organizations and communities
- Identifying the internal and external stakeholders, the level of organizational and community engagement, and outcome champions

- Measuring, tracking, monitoring, and reporting sustainability and resilience progress using the Quadruple Bottom Line (QBL) mechanism
- Implementing the sustainability and resilience plan, illuminating programs and initiatives to achieve sustainable and resilient communities
- Examining the intersection of sustainability and resilience and the corresponding outcomes for diverse planning processes
- Exemplifying innumerable tools and resources for sustainability and resilience planning

While resilience planning represents the next stage in sustainability planning and includes the elements of sustainability, understandably some organizations may continue to utilize sustainability plans for the consistency and continuity sake. However, in such instances, it is imperative the sustainability plan be reinforced with climate adaptation, climate mitigation strategies, and climate preparedness actions to achieve resilience.

The path to sustainability and resilience for local government requires a confident interplay of organizational dynamics of leadership and financial commitment, and implementation of policies and programs. The following non-exhaustive list of dynamic, sustainability and resilience components required for sustainable and resilience programs, policies, and projects includes:

Commitment Organizations are committed financially and otherwise to the sustainability and resilience goals and practical application and implementation of resilience and sustainability-related efforts. By connecting sustainability and resilience planning directly to their budget process, organizations indicate and substantiate commitment to sustainability and resilience.

Leadership Just as with financial responsibility, the key to successful sustainability and resilience program is capable and willing leadership. There is a direct correlation between exemplary leadership, sustainability, resilience, and successful organizations. Elected and appointed officials and staff must work in sync. Leaders enable and encourage development and implementation of sustainability and resilience initiatives at all levels of organizations. Evaluation of the leadership

role is provided within the framework of a broader governing perspective. By incorporating sustainability and resilience measures into its core value, an organization gets a more defined focus on long-term planning and leadership development.

Measurement, Monitoring, and Tracking Measuring sustainability and resilience impact is a necessity. Administrators view the the resilience outcomes in the context of budgetary implications are and track and measure results in real time. Measurement allows for better accountability and transparency of sustainability and resilience programs. The design of the sustainability and resilience program does not necessarily lead to more efficiency unless it is designed to be tracked, measured, monitored, and reported (Alibašić 2017a).

Reporting Mechanism Final and interim results are published and incorporated into future budgetary priorities and fiscal plans. By presenting outcomes from sustainability and resilience programs, organizations exercise a democratic right to communicate to constituents what they stand for, what needs to be improved and the plans for the future.

Stakeholder Engagement The stakeholders, both internally and externally, are more inclined to support and be engaged with the sustainability and resilience initiatives and programs, when they understand how sustainability enhances service delivery, and how it improves organizational efficiency and the quality of life in communities. The key to such engagement is to identify the uniqueness of the local government organization and the community.

Partnership Prosperous programs and initiatives involve innovative and pragmatic alliances to offset and leverage resources in the world fraught with financial instabilities. Financing resilience and sustainability-related projects requires the engagement of the banking sector, private sector, and public sectors in ways not seen in the past. One of the fundamental characteristics in the adoption of sustainability is the jump from planning to implementation. The partnership between local governments, academic

institutions, and private sectors can facilitate such jumpstart.

The process of embedding sustainability and resilience at all levels of local government is arduous; requires resources, commitment, and adaptation; and is not done in a vacuum. Each segment of creating sustainable and resilient community is critical. Ethical implications of planning and implementing resilience and sustainability-related initiatives using the Quadruple Bottom Line approach includes more just, equitable, healthy, and economically and environmentally resilient communities with an overall positive societal outcome.

Further Discussions

- Assess the implementation strategies for sustainability and resilience projects.
- Analyze the impact of sustainable energy strategies in organizations.
- Discuss the types of sustainability and resilience projects.
- Evaluate the implementation strategies and QBL approach to implementation.
- Examine the future of resilience planning and the Quadruple Bottom Line approach.

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