

UNIVERSITY *of* WEST FLORIDA

Climate Resilience and the Role
of Land Use Planning

Florida League of Cities
Symposium

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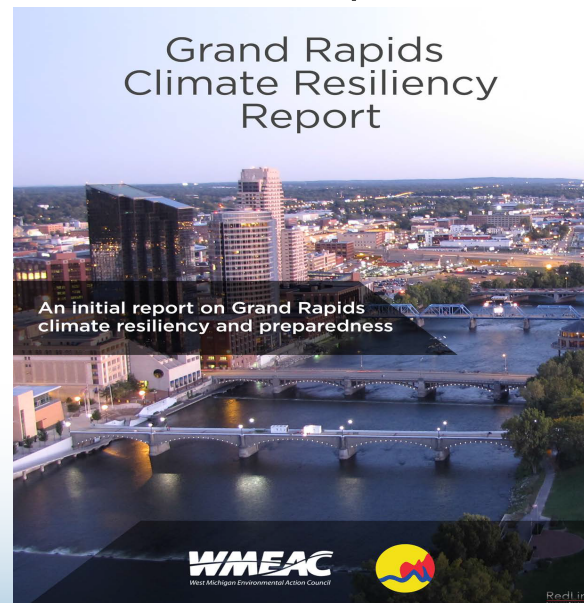
December 6, 2017

Overview

Local governments' approach to climate action planning varies based on the type of municipal leadership, financial resources available to resilience planning, and a community level commitment to addressing the threats of climate change. Deploying climate change actions in municipal land use and other planning.

The Climate Knot

“Climate change impacts each sector in isolation, but it also impacts the interaction of each to others and the function of the system as a whole. Therefore, understanding the needs of the community, major relationships between sectors, and the ability of the sectors to provide those needs in a changing climate world is key to building resilience. “ (WMEAC and GR, 2013)



Climate Resiliency Report

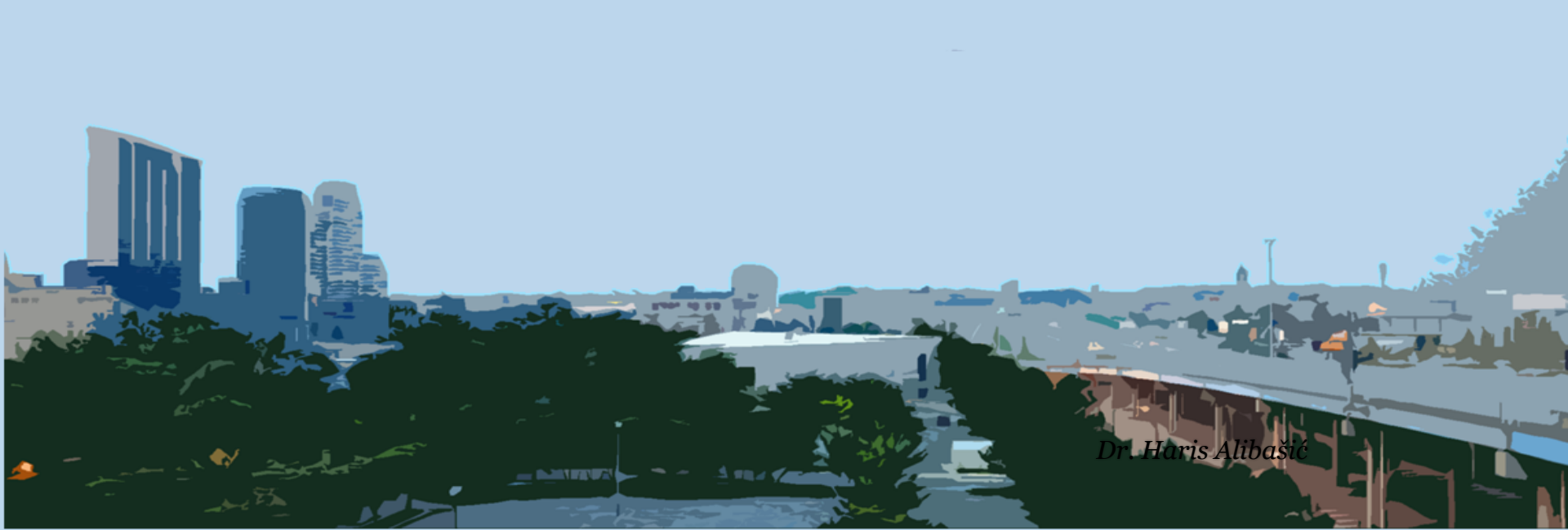
Focus on localization of climate change impact, and a specific set of recommendations to build resiliency in the local community and strengthen disaster recovery and resilience by local government (WMEAC & GR, 2013).

Climate Resiliency Defined

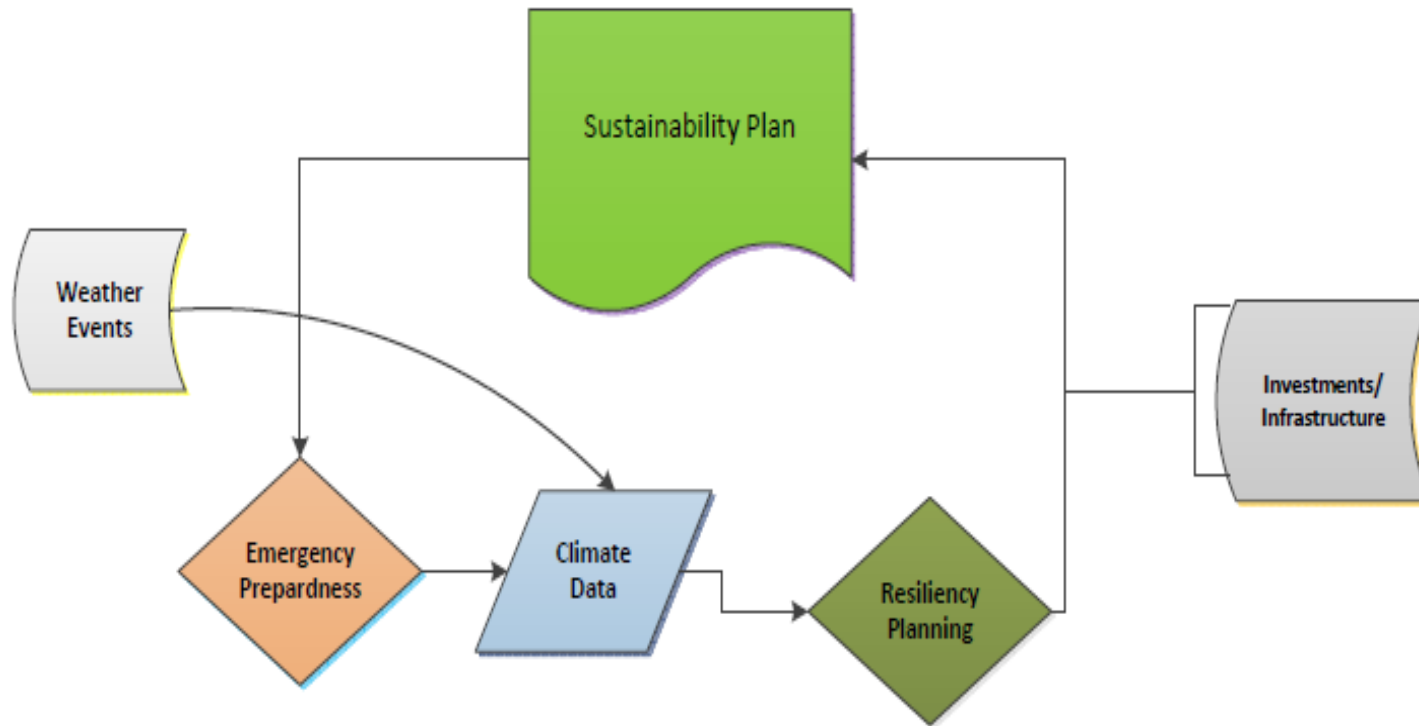
Balancing the Quadruple Bottom Line to maintain or increase quality of life by being able to withstand hazards, stresses and shocks in the face of an uncertain climate.

“Resilience planning takes into consideration climate change data, emergency preparedness, sustainable energy management, health, land use planning, and safety issues.”

Alibašić (2013). Local Governments Must Take Charge of Building Resilient Communities <http://www.triplepundit.com/2013/07/building-resilient-communities/>



Resilience Planning



Resilience Planning

- Resilience planning takes into consideration approaches used for zoning, land use, emergency preparedness, food, health, and safety, and incorporates them into a single plan.

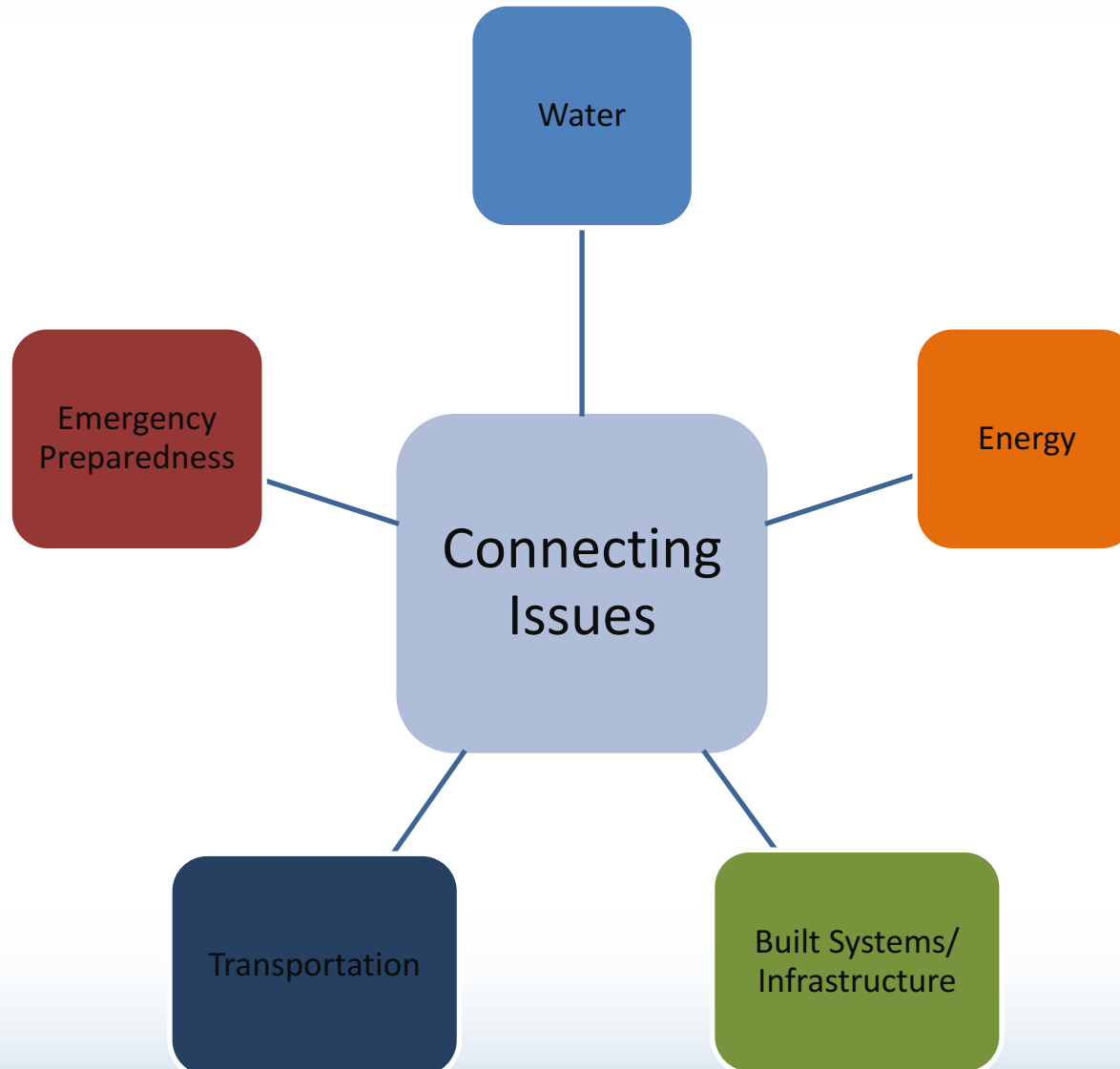
Resilient Land Use Policy Approach

Effective land use encourages smart development, preserves natural assets, creates a sense of place, and maintains infrastructure. It also builds climate-resilient and sustainable communities. Acting as a method of both climate mitigation and adaptation.

- Mitigation: reduces pollution and greenhouse gas emission.
- Adaptation: reduces potential thoughtless development.

Develop direct linkages to a budget and to tie it to the planning process. Sustainability Plan should have specific targets, outcomes, and sustainability indicators, including targets related to climate adaptation and mitigation.

A Nexus of Climate Resilience and Land Use Planning



Land Use/Localized Decision Making

- Decisions regarding land use and management are left to local governments.
- The responsibility of ensuring resilient infrastructure, developing effective zoning ordinances, community development plans, and establishing effective land-use plans falls upon local units.

Resilience Planning Actions

Examples

- Encourage mixed land uses promoting functional, walkable mixed-use development designs and projects with complete streets.
- Establish sustainable development patterns, especially in areas identified as high risk to sea level rise.
- Discourage development in flood zones, near wetlands, coastal areas, and established areas of inundation
- Conduct infrastructure study with cost-benefit analysis of designs based on traffic/runoff.

Resilience Planning Actions (Contd.)

- Increase watershed-level cooperation among sewer, water, and stormwater authorities.
- Assess and quantify the multiple environmental, social, and economic benefits of green infrastructure, as trees, forests, wetlands, and waterways provide natural protection and increase resilience by improving air quality, providing shade, reducing heat, storing surface water, and filtering stormwater runoff.

Resilience Planning Actions (Contd.)

- Use critical climate infrastructure such as low-impact development and green infrastructure to wholly implement the paradigm shift in stormwater management best practices (Green Grand Rapids; Green Infrastructure Portfolio Standard Projects).
- Conservation and expansion of green infrastructure decisions should include measurements of meeting the Greenhouse Gas mitigation targets, public health and safety goals, and climate change adaptation priorities.

Conclusion

- Municipalities, and other levels of government within their organizational and leadership capacity must continue to adopt strategies to address climate change impacts.

Articles

- Alibašić, H. (2013). Local Governments Must Take Charge of Building Resilient Communities
<http://www.triplepundit.com/2013/07/building-resilient-communities/>
- Alibašić, H. (2014). Planning and Implementing Climate Resiliency in Grand Rapids, Cover Story on Page 24 of the Michigan Municipal League's magazine:
<http://www.mml.org/resources/publications/mmr/issue/may-june2014/review-mayjune2014-online.pdf>
- Alibašić, H. (2017.) Measuring the sustainability impact in local governments using the Quadruple Bottom Line. The International Journal of Sustainability Policy and Practice 13 (3): 37-45

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