Applying the Learning and Action Alliance Framework: Energy Insecurity in Maricopa County

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How to use this guidebook

This guidebook was developed to illustrate how the Learning and Action Alliance (LAA) framework can be applied to sustainability-related stakeholder workgroups. It is intended to equip any practitioner tasked to facilitate a workgroup with the necessary information, including examples, to understand, implement, and propel the framework towards success. Previously, the LAA framework was exclusively used to address urban flood risk management. This case study will provide exemplary approaches for implementing the LAA into any workgroup focused on solving a wicked problem.

This guidebook provides examples on how to implement the LAA framework and notes about how the framework can be adjusted to fit various workgroup structures. Workgroup facilitators do not need to have any prior experience with this framework to implement it successfully. In Section 1, readers will briefly learn about the purpose of engaging stakeholders, common stakeholder challenges, and how the LAA framework can address these challenges. In Section 2, the LAA framework theory is reviewed. Section 3 will describe a plan for implementing the framework in an energy insecurity workgroup. Finally, Section 4 provides a conclusion and additional resources for LAA materials.

Introduction

Purpose of Stakeholders

In complex sustainability projects, the trend of involving stakeholders has been increasing (Stocker et al., 2020). The purpose of involving stakeholders in projects is to engage the views and knowledge of people directly immersed in wicked problems. Depending on the sustainability issue, stakeholders can range from NGO staff and private sector representatives to local industry experts, governmental organizations, and interfaith groups.

Stakeholders have a unique ability to leverage their expertise and direct relation to the problem to advise academic actors in their research. Stakeholders introduce thought-provoking perspectives that may not have been considered by researchers. Additionally, stakeholder engagement improves cross-sectoral collaboration and can provide local, specialized knowledge that otherwise may be unexplored (Coleman et al., 2019). Although engaging stakeholders can bring value to a project team, there can be many challenges in the engagement process.

Stakeholder Challenges

Engaging stakeholders in workgroups is necessary but presents many challenges. The following challenges are commonly encountered:

- Inconsistent use of terminology and definitions
- Relevant stakeholders are forgotten
- Stakeholders' lack of time
- Little or no compensation for stakeholders' time
- Stakeholders' needs not met in previous engagements
- Lack of trust
- Siloed thinking: Segregated view of systems (Lawson, 2015)

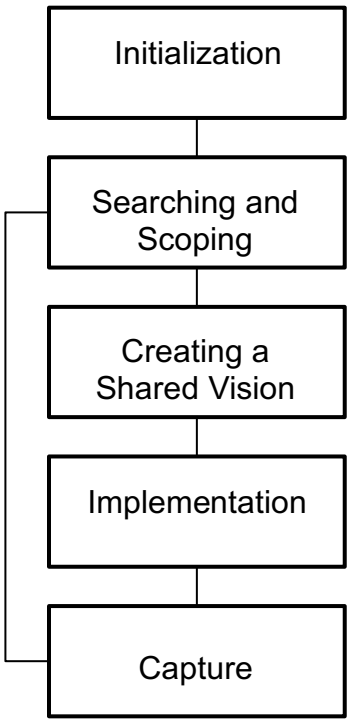
The Learning and Action Alliance Framework

One way to avoid these challenges is to implement the Learning and Action Alliance framework. This framework is designed to facilitate stakeholder workgroups and generate innovative, cross-sectorial solutions. The framework leverages social learning to address wicked problems in complex systems.

Section 2: The Learning and Action Alliance Framework in Theory

LAA Framework Steps

The Learning and Action Alliance framework is organized in five procedural phases: initialization, Searching and Scoping, Creating a Shared Vision, Implementation, and Capture [Figure 1] (Ashley, 2012). These five phases are loosely defined and can be customized to fit varying needs within a workgroup.



1. Initialization

The initialization phase begins by identifying the wicked problem and establishing an initial group of interested parties (Ashley, 2012). Each LAA will require at least two facilitators to organize the workgroup, present the wicked problem, and focus the stakeholder workgroups. Leadership training may be beneficial for facilitators before starting the initialization phase. The process of stakeholder engagement should begin in this phase by mapping stakeholders to ensure all relevant industries and perspectives are included. Once stakeholders are invited to participate in the LAA, the organizing group will be responsible for managing expectations.

2. Searching and Scoping

The searching and scoping phase consists of identifying the political and physical reach of stakeholders and classifying tactical stakeholders (Ashley, 2012). Membership of the LAA should be inclusive and enrich the project with experts knowledgeable about the issue. To map stakeholders, the LAA Membership model is used [Figure 2]. The LAA Membership model differentiates stakeholders by categorizing them into three groups: Organizing, Core, and Wider group. The organizing group is responsible for facilitating meetings, attending meetings, coordinating the workgroup and ensuring

collaboration occurs between workgroup members (O'Donnell et al., 2018). The core group attends regular meetings, shares information, and raises awareness for the given issue (O'Donnell et al., 2018). The wider group attends meetings as needed (typically based on interest or expertise) and participates on an irregular basis (O'Donnell et al., 2018). The role criteria for these LAA membership types is ubiquitous among the LAA literature, however, roles can be tailored based on need and workgroup characteristics. Additionally, tactical stakeholders (stakeholders who can directly access funding or change systems) should be involved.

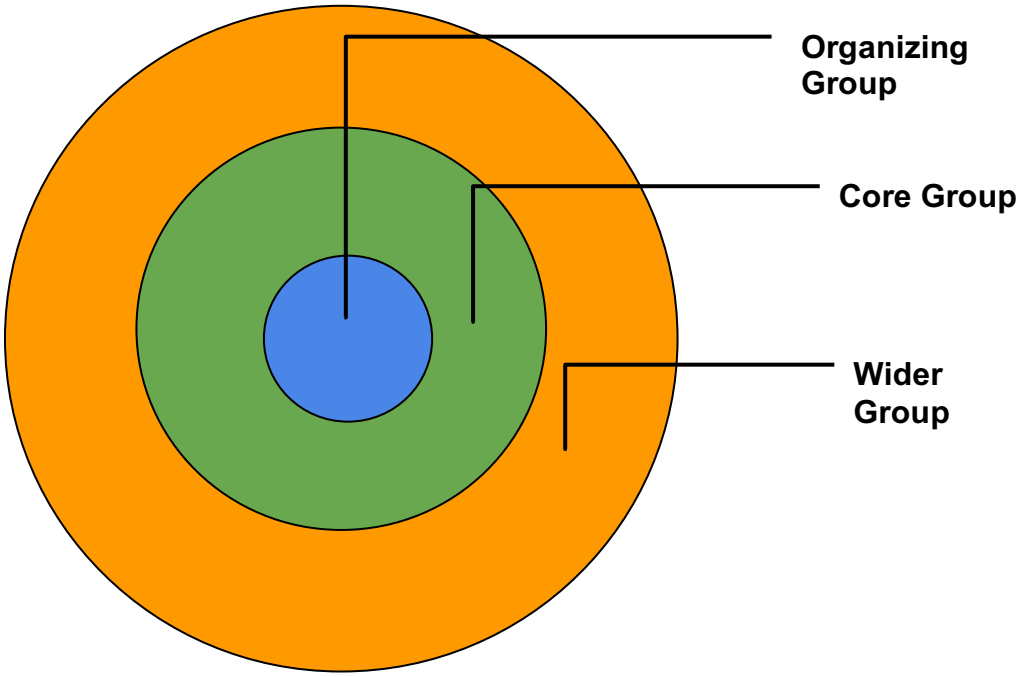


Figure 2. *Adapted from O'Donnell, 2018. LAA Membership Model.*

3. Creating a Shared Vision

The next step is for stakeholders to create a shared vision. A shared vision is created through bartering and negotiation between stakeholders and provides the opportunity for stakeholders to learn from each other's unique perspectives. The visioning process can be completed in a workshop, focus group, or open discussion, however; it is critical in this phase that stakeholders are given enough time to interact, fully discuss, and agree upon the vision. Another component of this phase is the creation of a Terms of Reference and Strategic Objectives. These supplementary materials outline vision elements, the mission of the LAA, responsibilities of members, and objectives to achieve the vision.

4. Implementation

The Implementation phase focuses on exploring and implementing possible solutions (O'Donnell et al., 2018). In this phase, quick wins are key. Delivering a quick win will invigorate stakeholders and encourage continuous progress towards the shared vision. These wins will encourage stakeholders to explore more challenging long-term solutions to wicked problems. Additionally, past LAA case studies have implemented quick wins into existing projects while simultaneously exploring long term solutions.

5. Capture

The last phase is the capture phase. In this phase, the implemented solutions are analyzed to assess whether they achieve the shared vision. If the implemented solutions did not achieve the visionary state, or the stakeholders are dissatisfied with the outcomes, the workgroup can continue working to achieve a different outcome. They would return to Phase 2 of the framework and redefine goals or the scope of work. Additionally, all information is made publicly available so the project and solutions can be studied and replicated.

Section 3: The Learning and Action Alliance Framework Application Plan

For this pilot project, the framework implementation plan was designed using the 5-phase method as outlined by Van Herk (2011) and Ashley (2012). The five phase method is commonly used in LAA literature, other exemplary case study resources can be found in *Section 4: Additional Resources*. When applying the LAA framework, it is important to remember that this framework is accommodating to wicked problems, customizable to fit specific needs, and can be implemented in any environment, including a virtual one. Due to COVID-19 restrictions, the following project using the LAA Framework was conducted remotely.

Background on Energy insecurity in Maricopa County, Arizona

Climate change has created many existential threats for humanity, with one of the most pressing issues being extreme weather events. Extreme weather events disproportionally affect marginalized populations and extensively impact their quality of life. Extreme heat is one of the most prevalent types of extreme weather events and it is the deadliest (Lisa, 2020). Maricopa County, AZ, experiences many extreme heat events. During the Summer of 2020, there were 55 confirmed heat-related deaths and 266 deaths that are still under investigation by the Maricopa County Department of Public Health (Webb, 2020). In 2019, one out of four heat related deaths occurred indoors (AZEIN, 2020). As extreme heat events continue to rise, the dependency on heating and cooling mechanisms will proportionally increase. For low- to moderate- income populations, allocating more income towards energy is not always feasible, thus families become energy insecure. Families are forced to choose between apportioning finite resources towards energy, security, social or household needs.

In summary: energy insecurity is dreadful and very difficult to solve.

In response to the increasing rate of energy insecurity, The American Council for an Energy-Efficient Economy (ACEEE) was granted funding to address energy insecurity in

Maricopa County. The project, *Energy Insecurity and Public Health: Going Further through Cross Sector Collaboration*, aims to improve the health of communities by promoting projects that are community engaged, action oriented, and equity focused (Interdisciplinary Research Leaders, 2020).

Additional considerations for this project:

- The research team and stakeholders met prior to the framework being implemented due to time constraints. Despite this, the framework was implemented effectively.
- I was not able to implement the entire framework. Phases 1-3 were completed successfully and I created a plan to execute Phase 4 and 5.

1. Initialization

In 2020, Maricopa County had the highest amount of heat deaths in the US during the summer. The increased heat deaths signified a public health crisis in the county that experts were not sure how to address. Heat deaths experienced due to energy insecurity are not well understood or documented. Due to the complexity and ambiguity surrounding energy insecurity, it is considered a wicked problem. Wicked problems aren't easily defined or solved.

The core LAA members are interdisciplinary researchers: Dr. Vjollca Berisha, Dr. Lauren Ross, and Dr. Diana Hernandez. In LAA case studies, it has been noted that it's valuable to have university-based researchers as the core members due to academic researchers being seen as less biased by stakeholders. In this project, 2/3 of the project partners are affiliated with academic institutions which is beneficial to demonstrate impartiality.

The research team identified the following key questions to address in the project:

1. *How can local governments measure and track energy insecurity at the community-level (Interdisciplinary Researchers, 2020)?*
2. *What are the strongest energy insecurity and related health indicators at the community-level (Interdisciplinary Researchers, 2020)?*

3. *What are best practices for streamlining health - and energy-related interventions to maximize energy savings and health impacts across the community (Interdisciplinary Researchers, 2020)?*

After defining the scope of the project, local stakeholders were invited to participate in the energy insecurity-focused workgroup. Local utilities, health organizations, housing representatives, interfaith organizations, and city officials were some of the stakeholders involved. Stakeholders were mapped by the interdisciplinary researchers to ensure all vital parties were included, alternatively, there are different established stakeholder mapping frameworks that can be used to ensure all appropriate stakeholders are included. It is imperative to manage stakeholders' expectations and to demonstrate the value of their pro bono work (O'Donnell et al., 2018). In this project, expectations were re-visited throughout Phases 1-3.

2. Searching and Scoping

In phase two, the political and physical reach of the stakeholders were analyzed. To analyze their physical and political reach, the LAA Membership Model was used. The LAA Membership Model differentiated the Organizing Group, Core Group and Wider Group. Organizing stakeholders into this model proved to be very difficult. There is no easy way to communicate to a stakeholder that they are less relevant to this issue than another. We ended up defining roles and responsibilities for each level of membership [Figure 3] and allowed stakeholders to self-organize.

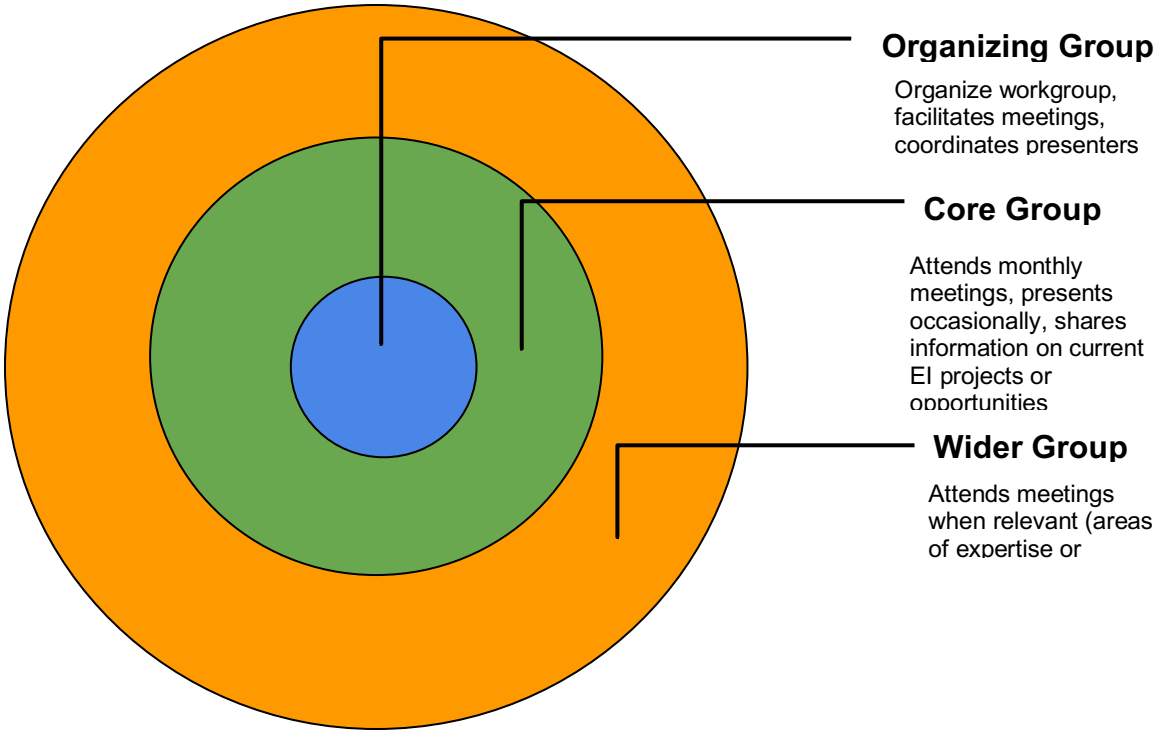


Figure 3. *Adapted from O'Donnell, 2018. LAA Membership Model with Criteria.*

3. Creating a Shared Vision

A vision is a powerful tool that can guide professionals when evaluating and solving wicked problems. A vision exemplifies a "desirable future state or goal to be achieved" (Wiek, 2015). Visioning typically begins after a current state analysis of the wicked problem where the causal structure of the problem is analyzed. A vision transports stakeholders to a desirable and sustainable future state that is more than just wishful thinking. A vision that is sustainable is coherent, tangible, plausible, and motivational (Wiek, 2015). Furthermore, a sustainable vision should be evidence-based and consist of remarkable change. Incremental change is often deceiving and alludes to progress; however, this method of change prohibits the realization of actual transformational future states. Often, Nowtopias (Chris Carlsson, 2008) are relied upon during the visioning process. Nowtopias are exemplary pilot projects that generate transformational changes as described above (Wiek, 2015). Nowtopias can be used to prove that any given vision element is plausible.

The following model [Figure 4] translates when the workshop should intervene in the workgroup model.

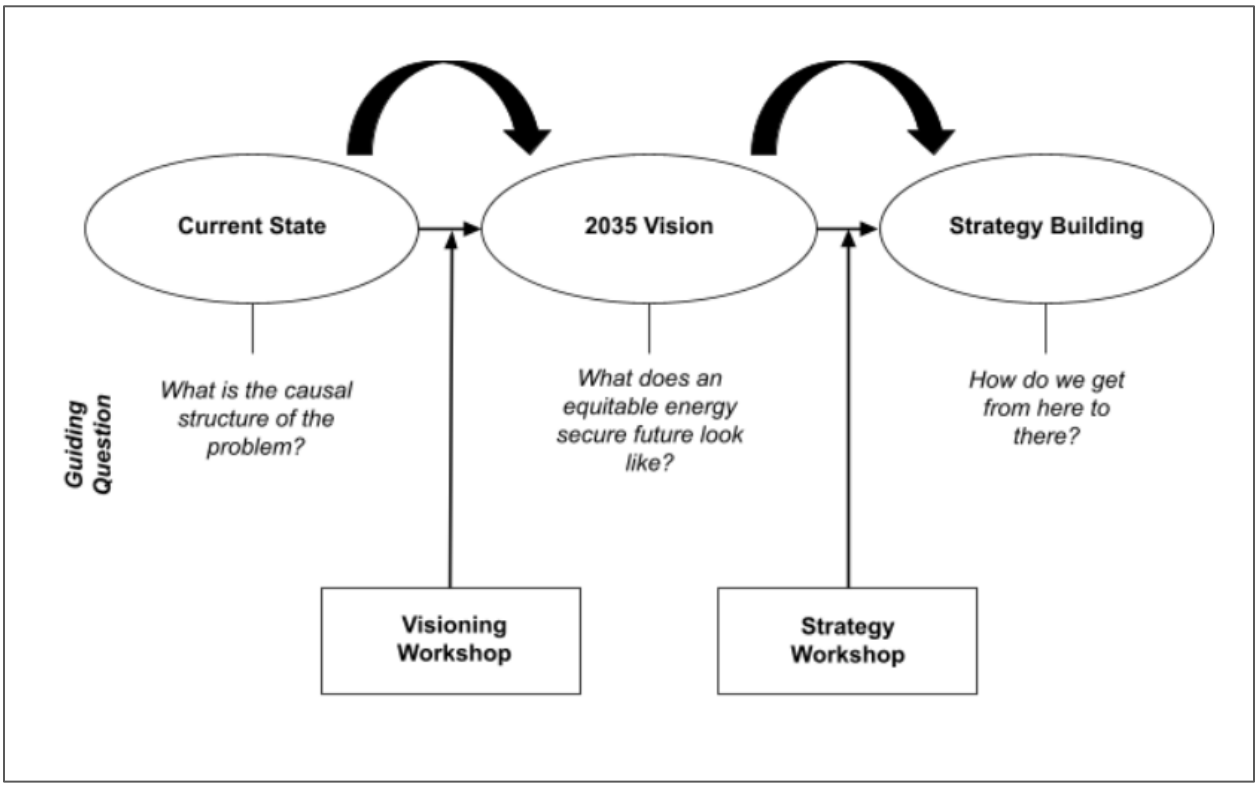


Figure 4. *Adapted from Wiek, 2015. Causal Structure Model.*

The visioning process promotes dialogue between stakeholders and leverages the argumentative process for stakeholders to debate opinions and aspirations. However, creating a shared vision among stakeholders can be quite challenging, especially if stakeholders are polarized or if experiences and knowledge are not shared. To combat these challenges, I designed a visioning workshop to allow space for social learning and creating a plausible vision. The workshop, "Envisioning an Energy Secure Future for Maricopa County, AZ" was conducted to develop a shared vision within the workgroup. The goal of this workshop was for stakeholders to create and agree upon an initial vision for an energy secure Maricopa County in 2035. A month before the workshop, a workshop invitation, RSVP form, consent form, and Pre-Workshop survey was sent to workgroup in preparation for the workshop.

The workshop was designed to assess what stakeholders considered to be a fair and equitable energy future. The process of creating a shared vision began with this workshop; however, many follow up meetings needed to be conducted to further refine the vision using stakeholder input.

4. Searching and Scoping

In Phase 4, strategy building will occur over three-six months and ensue in the three steps as outlined in (Batchelor et. al), n.d.. It is beneficial if someone familiar with the strategy building process facilitates the searching and scoping phase. Additionally, energy insecurity (EI) stakeholders will be engaged in each of the following steps.

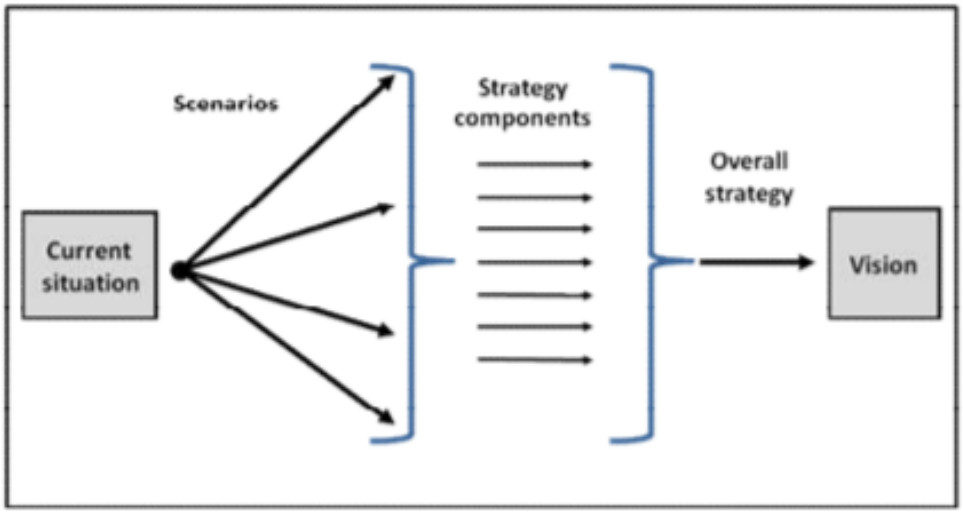


Figure 5. *Adapted from Batchelor et. al, n.d.. Strategy Development Based on Visioning and Scenario Building.*

First, EI stakeholders will identify components of the overall vision (Batchelor et. al, n.d.). This action will occur in two or three conversational brainstorming sessions where all stakeholders are present. Ideas for opportunities that can be integrated into the overall vision will be listed. These strategy suggestions can be inspired by existing common practices or by new and innovative approaches. For example, electric utilities offer programs to alleviate energy burdens on low-income households. Another example is poverty alleviation. Unlimited Potential has a program where

they offer skill-building to individuals lacking skills or formal education. These are examples of existing solutions that can be integrated into the overall vision

Second, "assess the social, technical, political, economic and environmental viability and acceptability of each strategy component especially those that are new to the stakeholders. Once the vision is finalized, stakeholders will develop 3-4 plausible future scenarios" (Batchelor et. al, n.d.). By the time this step is finished, all vision components will have been discussed and either accepted, rejected, or adapted.

Third, barriers and risks will be determined (Batchelor et. al, n.d.). Strategy components developed in the second step will be reflected on to assess the barriers and risks and whether they will interfere with the fulfillment of the vision. After that is accomplished, the synergism between strategy components will be compared to ensure one strategy component did not inhibit another.

Fourth, vision elements, strategy components, and scenarios will be linked and analyzed through a visual method, such as a table as depicted below [Figure 6].

Vision Elements	**Strategy Components**	**Scenarios**			
		I	II	III	IV
Energy equity is a priority.	- Energy policy is mindful of rate increases. - Subsidies are targeted.	?	X	✓	?
…….					

Figure 6. *Adapted from Batchelor et. al, n.d.. Example Provisional Assessment of Strategy Components.*

Fifth, the table created in the previous step will be reviewed [Figure 6]. Then, whether the strategy components have the capability to achieve the vision element in each scenario will be assessed. Findings will be documented with a ?, X, or ✓.

Sixth, any strategy components that do not align with the scenarios will be reviewed. Amending the strategy components to align with scenarios is one option. If that course of action is unsuccessful, the vision element will be amended so that it may be achieved.

Seventh, combine different strategy components to create potential overall strategies. The strategies will be cross-checked with the original vision to ensure cohesion among all of the strategy components. Next, check that strategies are transformational and are considerate of marginalized groups. This step will produce various overall strategies where the cost, benefits, and trade-offs have been analyzed.

Eighth, stakeholders will choose one solution strategy to pursue. This decision will require an argumentative process between stakeholders.

Ninth, the planning process will commence. This process may expose flaws or ideas that hadn't been considered in the strategy building process.

5. Capture

Finally, Capture will be accomplished after evaluating the performance of actions completed to achieve the vision. The effectiveness of the implemented actions will be assessed by stakeholders. If energy insecurity stakeholders believe that the vision has been accomplished, the LAA will disband. If the stakeholders don't think the vision was realized, the workgroup will continue working on energy insecurity and the LAA will redefine the scope and project goals. Regardless of the outcome, all lessons learned, data, process information, and results will be made publicly available and shared with other energy insecurity practitioners.

Section 4: Beyond the Learning and Action Alliance Framework

Solving wicked problems that affect the environment, society or economy is crucial to ensure a sustainable future is possible. The LAA framework is a key piece to achieve an ideal future. Implementing the LAA framework into a workgroup is challenging, but beneficial outcomes have been consistent in the framework literature. LAA's confront common obstacles to effective stakeholder collaboration by removing barriers for information sharing, building capacity in the individual and organization through social and active learning, and creating trust between stakeholders (O'Donnell et al., 2018).

Additional Resources:

Newcastle Learning and Action Alliance
http://www.bluegreencities.ac.uk/research/learning-and-action-alliance.aspx#:~:text=The%20Blue%2DGreen%20Cities%20team,socio%2Dcultural%20and%20economic%20benefits.

MARE Learning and Action Alliance
http://archive.northsearegion.eu/files/repository/20130415141048_WP1LearningandActionAlliances_MARE_NorthSeaRegionProgramme.pdf

The Learning and Action Alliance Framework
https://onlinelibrary.wiley.com/doi/full/10.1111/j.1753-318X.2011.01108.x

https://core.ac.uk/reader/288430196

http://www.switchurbanwater.eu/outputs/results.php?wp_select=17&pubtype_select=1&op2_select=AND&pt=Learning%20Alliance%20Briefing%20Notes&m=0,6,1,1

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Allie McGranaghan is a Master of Sustainability Solutions student at Arizona State University. Previously, she obtained a Bachelor of Science in Sustainability from ASU. She is passionate about energy and optimistic about a decarbonized, energy-just future. For any inquiries or comments, she can be contacted at **Allie.McGranaghan@asu.edu.**

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