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Agrivoltaics Groundwork

This guide provides an overview of the suggested foundational activities to undertake before building an agrivoltaic system to increase the overall impact, success, and longevity of your project.



Before building your agrivoltaic project, it is important to engage in the activities below.



Community engagement and collaboration

are fundamental in laying the groundwork for successful agrivoltaic projects. This ensures that these initiatives are well-informed, inclusive, and aligned with the needs and priorities of local communities. Effective community engagement begins with actively involving local stakeholders such as farmers, residents, local government, solar developers, and educators—in the planning and decision-making processes about how to design an agrivoltaics project for maximum benefits. This collaborative approach fosters a sense of ownership and support for the project.



Advocacy and representation are vital for ensuring that the voices of diverse stakeholders, including underserved farmers, are heard in the development and implementation of agrivoltaics projects. Information about local policies and upcoming solar and agrivoltaics projects can empower community members to engage in conversations and allow their perspectives to be heard.



Financial exploration can help facilitate more productive conversations with local partners, permitting agencies, and solar industry entities. Learning more about financial considerations of agrivoltaic projects can also lead to more accurate expectations of costs, payback periods, and potential revenue for all partners. Researching available grants, subsidies, and financial assistance programs can help with the upfront costs of installing solar panels and equipment.



Researchers from the National Renewable Energy Laboratory, University of Arizona, and Colorado State University partner with Jack's Solar Garden and Sprout City Farms to study crop, pasture grass, and pollinator habitat production underneath and around solar panels. Colorado Agrivoltaic Learning Center provides tours and educational opportunities to learn about research findings and agrivoltaic opportunities. *Photo by Werner Slocum, NREL* 81432



Training and capacity building programs are crucial for empowering agricultural practitioners, project partners, and community members with practical solutions and innovative technologies, enabling them to effectively implement and manage successful agrivoltaics projects. By integrating hands-on learning experiences and real-world applications, these efforts can foster a deeper understanding and stronger skill set, leading to more sustainable and impactful project outcomes. Examples of useful tools and resources include online webinars and educational programs, onsite agrivoltaics tours and workshops, technical assistance programs, and peer-to-peer learning networks.



Knowledge sharing and mentorship are crucial for empowering historically underserved farmers and ranchers with the information, skills, and support needed to successfully adopt agrivoltaics, fostering sustainable agriculture and community development. Developing a platform or online community for farmers to share experiences, challenges, and best practices related to agrivoltaics facilitates peer-to-peer learning and support. If you develop an agrivoltaics knowledge base, consider becoming a mentor to other farmers interested in agrivoltaics.

Most, if not all, successful agrivoltaics projects have incorporated these groundwork activities at the beginning of the agrivoltaic planning process. Ensuring that there is early and equitable engagement can improve the longevity and community acceptance of your agrivoltaics project. Ongoing training, capacity building, and mentorship can increase the success and overall impact of the project.

For online capacity building and mentorship opportunities, check out:

- Clean Energy to Communities (C2C)
 Expert Match agrivoltaics technical assistance (nrel.gov/state-local-tribal/c2c-expert-match.html)
- AgriSolar Clearinghouse information library (agrisolarclearinghouse.org/ agrisolar-information) and webinars (agrisolarclearinghouse.org/category/ webinars-and-tutorials/)
- Colorado Agrivoltaic Learning Center's webinars (coagrivoltaic.org/past-webinars)