



# Tips for Engaging Underserved Communities Through EE

Project Learning Tree curriculum and instructional design educates and empowers communities to take action on environmental issues every day. Through citizen science projects ordinary people can also contribute to scientific knowledge to inform and strengthen environmental action. PLT curriculum can not only be used as a tool to implement and design citizen science projects, but also engage underserved communities through EE.

Below are some tips for engaging with underserved communities through EE derived from two case studies.

## Case Study 1:

**Promising Practices for Equity, Diversity, and Inclusion, Cornell University Center for Diversity and the Environment. 2012.**

A team of PPSR (public participation in scientific research) practitioners convened to develop evidence-based recommendations for improving the cultural inclusiveness of PPSR projects. The team based their case studies in efforts to engage communities that have been most marginalized and disenfranchised by the sciences, including communities of color, low income communities, and tribal communities.

*From their case study, they made the following recommendations when working with underserved communities:*

- Be able to and communicate a mutual benefit — understanding the goals of a community can help citizen science projects align with those goals
- Find common ground through asset-based mapping and goal setting
- Participate by speaking and presenting materials written in the languages spoken at home
- Do your research: identify and address barriers
- Develop collaborative partnerships
- Identify local leaders and organizations to be interpreters and liaisons
- Choose content that is relevant to the communities needs and interests — allow communities to define this themselves
- Be flexible and adaptive — provide a variety of ways to participate
- Start small and build relationships — the most productive conversations are equitable and sustained over time.
- Have a point of contact who is both knowledgeable and passionate about the project to facilitate conversations towards a common goal.

## Case Study 2:

**Pandya, Rajul E. A Framework for Engaging Diverse Communities in Citizen Science in the US, Frontiers in Ecology and the Environment 2012.**

In this article, Rajul Pandya reviews case studies regarding disparities in participation of citizen science projects by minority populations in the US. They argue that increased participation from people of color and indigenous populations would not only result in new perspectives, research questions, and meaningful impacts, but also inspire increased participation in STEM careers.

*From their review, Pandya identified the following barriers to participation for minority populations:*

- Lack of access to traditionally defined natural settings and forests
- Lack of familiarity with traditional western science and scientific processes
- Time and connection to the value or benefits of the project
- Limited transportation options
- Unfamiliar with norms at nature/science centers
- Cultural differences
- Language barriers

*Recommendations to limit barriers:*

- Align research and education with community priorities
- Engage the community at every step
- Incorporate multiple modes of knowledge
- Disseminate results widely

