

Participation, Collaboration, and Shared Management in El Yunque National Forest: Opportunities and Challenges

Tania López Marrero and L. Annie Hermansen-Báez



Introduction

Shared management approaches to natural resource management emphasize the collaboration and participation of different groups to improve resource or area management processes. This is accomplished through joint discussion and decision-making, power distribution in decision-making, shared rights and responsibilities, social and institutional learning, co-production of knowledge, and problem-solving. As socioecological systems increase in complexity and natural resource management occurs under changing and uncertain ecosystem, environmental, and social conditions, alternatives to centralized management by governmental agencies have been proposed. Shared management approaches will help address such situations and solve complex problems requiring input from different groups of people and resource users.

In 2019, National Forest officials approved the El

Yunque National Forest Revised Land and Resource Management Plan to guide the forest's management for the next 15 years (EYNF 2019). The management plan promotes the inclusion, participation, and collaboration of different groups—community members, landowners, municipal planners, other local government agencies, nongovernmental organizations (NGOs), scientists, and the private sector, among others—in the development of initiatives and projects that promote sustainable use, management, and monitoring of forest resources. It even includes a management area (Community Interface Resource Management Area) to promote community-based collaborative forest management projects and initiatives (**Figure 1**). However, shared management approaches are new to El Yunque National Forest (El Yunque, hereafter) and many forest stakeholders, and thus, information is required to promote these concepts and their applications.

To help encourage appropriate and successful



Figure 1. Community members collaborating in the El Yunque Vegetation Monitoring Project in the Community Interface Resource Management Area.

implementation of El Yunque's management plan, we conducted a literature review and developed an annotated bibliography about natural resource-shared management projects in different parts of the world (Ramos Echevarría and others 2023). From data collected in the literature review, we summarized factors that facilitated the development and successful implementation of shared management projects and, conversely, those that limited or hindered them (López Marrero and others 2024). We took an additional step and interviewed people who collaborated with El Yunque personnel. We asked them about their views and perspectives on opportunities and constraints to stakeholder participation and collaboration, as well as their views on successful implementation of shared management initiatives in the forest. In this factsheet, we provide their input and recommendations.

Assessing perspectives on stakeholder potential to collaborate and participate

Fourteen people from government agencies, non-governmental organizations, community organizations,

and academic institutions who have collaborated with El Yunque in developing management plans, carrying out educational and cultural activities, conducting scientific research, or developing economic activities were interviewed individually by phone or video conference. Data was collected in 2021.

The interviewees were asked about their views regarding interest and willingness of other people to collaborate. Potential collaborating groups included community groups, residents, non-governmental organizations, government agencies, and academia. Specifically, they were asked about factors encouraging participation and collaboration in forest and resource management initiatives. They were also asked what factors they thought could potentially limit or hinder such involvement and collaboration. At the beginning of the interview, they were asked to provide their perspectives based on their collaboration with El Yunque and their observations of the interactions between El Yunque and collaborating groups. After providing their opinions freely, they were presented with the findings of shared management experiences in other parts of the world (López Marrero and others 2024). They were asked to reflect upon those findings and identify instances that could apply to El Yunque. Finally, they were asked to provide suggestions to promote and foster productive participation and collaborations in El Yunque.

Key Findings

Factors that can encourage participation and collaboration in natural resource shared-management initiatives in El Yunque

Most interviewees agreed that, in general, people are interested in getting involved and participating in initiatives related to El Yunque. They saw community participation as essential to the success of shared management initiatives. Among factors associated with this group's potential involvement

and participation, they mentioned that community members and other groups:

- have a special attachment to El Yunque and feel proud of being part of a world-renowned ecosystem (**Figure 2**);
- recognize the importance of El Yunque and the benefits it provides;
- are aware of factors affecting El Yunque and the need for action to minimize negative effects and maximize positive ones;
- recognize the importance of the new management plan, which will benefit the forest and potentially the people involved; and
- acknowledge the importance of different group participation and collaboration, the input of various ideas, and the implementation of different resource use and management initiatives.

Factors that can limit or hinder participation and collaboration in natural resource shared-management initiatives in El Yunque

The interviewees identified factors that could inhibit involvement and collaboration. These factors were mainly related to interactions between the agency (Forest Service) and community groups and residents. The most mentioned factors included:

- limited transfer or distribution of power concerning decision-making, where the agency maintains control over such decisions;
- bureaucracy, lack of flexibility, and institutional obstacles associated with participation and the development and implementation of resource management initiatives;
- existing tensions, distrust, and disappointment, given previous relationships and experiences between communities and the agency;
- agency preference given to some groups (e.g., regional non-governmental organizations) instead of working with local community groups;



Photo: El Yunque National Forest

Figure 2. El Portal de El Yunque receives local and international visitors and provides opportunities to learn about the forest.

- exclusion or unequal treatment between communities by the managing agency, including the disparity in the distribution of benefits among communities or other groups involved;
- lack of stakeholder knowledge regarding shared management initiatives and collaboration opportunities;
- lack of economic resources to develop and provide continuity to projects;
- lack of economic incentives or monetary compensation for community participation;
- lack of, or limited opportunities for, community training or education (e.g., environmental, technical, legal training) needed for project development and implementation;
- inability to address community needs, concerns, or interests in developing management initiatives, along with differences in opinions and priorities among groups regarding the resources to be managed;
- cultural barriers between communities and the agency (e.g., language and how information and knowledge are transferred, including primarily the use of English language and highly technical vocabulary and information in management plans and other documents);
- lack of effective communication between groups

(e.g., between agency and communities) or internally within each group (**Figure 3**);

- lack of agency staff trained to interact and work with communities; and
- lack of knowledge of the agency regarding the resources at the community level (e.g., human knowledge, skills, training, and expertise) that can be useful for developing and implementing initiatives.

Photo: Fundación Amigos de El Yunque



Figure 3. Effective communication is crucial for developing and implementing shared management initiatives.

Recommendations

Interviewees provided various recommendations to enhance participation and collaboration in El Yunque. These included:

- establishing collaboration mechanisms and making sure these mechanisms are clearly communicated to potential collaborators. For example, some people would like to collaborate but do not know how or whom to ask;
- making the different groups aware of collaboration opportunities that exist or that could be developed;
- establishing clear and transparent communication, not creating false expectations among potential collaborators regarding, for instance, decision making and the benefits to be obtained;

- identifying the needs and concerns of communities and their residents and exploring how these needs and concerns can be incorporated into shared management initiatives and projects;
- promoting community integration from the conceptualization of potential projects or resource use or management initiatives;
- making resources available for community capacity building and training equally to all communities and individuals with an interest in collaboration;
- increasing educational efforts about El Yunque to understand better the ecosystem and factors that are negatively affecting it;
- providing information in Spanish and in a varied and engaging way, in addition to English and highly technical and scientific language (**Figure 4**);
- including more historical and social aspects of El Yunque and the community in developing informative material (e.g. the community's oral history and its relationship to the forest could be compiled, from which creative deliverables could be created);
- encouraging a better connection between research (and related scientific knowledge) and management of the forest and its resources;
- getting to know the human resources of the communities that could be useful for developing projects and through initiatives such as conducting community censuses and creating a database with available resources by community;
- having the Forest Service more visible and engaged in the community; and
- monitoring and documenting initiatives developed and implemented with collaborators to reflect on successful practices (or otherwise), being flexible by modifying practices and initiatives as needed.

Conclusion

Different factors were identified by the interviewees that encourage people's participation and collaboration in initiatives related to El Yunque's resource use and management. However, some other factors could



Figure 4. Providing information in Spanish, adapting to the local context (a), and incorporating forest materials (b) are ways to engage people in activities related to El Yunque.

inhibit such involvement and collaboration. These factors were related to historical, cultural, and institutional factors, decision-making, access to resources, equity, communication, trust relationships, and knowledge, among other things.

With the creation of the El Yunque National Forest Revised Land and Resource Management Plan, the road to greater connection with communities (and other groups) has begun. Establishing trusting and mutual working relationships takes time and effort but is needed for effective and fruitful participation and collaboration. Learning about the potential factors that may facilitate or limit such participation and collaboration, and responding to them is necessary.

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For more information

For more information or if you have questions, contact Tania López Marrero at tania.lopez1@upr.edu.