

**Proposal presented by:** Puerto Rico Forest Bureau  
Department of Natural and Environmental Resources  
P. O. Box 366147  
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**Project Name:** The Urban Forest Workshops and Community Integration  
**Project Leader:** Edgardo Gonzalez

**Abstract:** The historical land use and rapid economic transformation from rural to urban environment in the history of Puerto Rico has smooth the progress of separate communities and citizens from their forest environment. In the history of the island the residents and communities experience a deforestation pattern that reduce the forest coverage to 6% of the territory with a rapid urban development and reduction of open green spaces. After the drastic reduction in agriculture activity a dense secondary forest has come back to most of the landscape of the island providing Puerto Rico the opportunity of being a case where forest recovery and urbanization has grown together. But urban areas have not recovered as well as the central part of Puerto Rico leaving patches or forest island surrounded by urban development. On the other side, communities have started to identify and conserve those forest remnants in their neighborhoods that create a unique opportunity to re-start a direct contact and use of these spaces in the urban environment. The product of this project includes a planned program to integrate communities and their resident to urban forest and open spaces to promote the conservation and benefits of these areas for healthier communities. The project consider the use of two communities (San Patricio and Piñones) that are located next to a forest area to develop a series of modules and activities that will start with levels of interaction from the schools children to community resident to conclude with a permanent concept preliminary called Urban Forestry Workshop (UFW). The concept includes a development of neighborhood beautification and safety, forest health program and environmental education programs to integrate the forests as school resources and healthy recreational centers for the residents. The main objective is to promote the use and contact of open spaces within communities and neighborhoods because of their history and housing development pattern that has been separated to these alternative producing the reduction and inappropriate use of urban forest and green open spaces. The project wills analysis the consideration of the communities to guide the alternatives and concepts for the UFW. This analysis can be considered and applied to other communities to create urban forest conglomerates or green industries with a series of UFW that will be integrated in municipalities as part urban forest recognition or certification program that will be established as part of the project. The certification will consider other urban programs (Tree City USA, etc.) to integrate a working urban forest certification based on the activities and uses of the UFW developed by each municipality.

**Partnering Agencies and Groups / Individuals:** Corporación Piñones Se Integra (COPI), Comunidad Asociada de Caparra Heights (CACHI), Home Schooling Association, IITF, Department of Education, UPRM – CAS – AES, UMET

**Project Location:** Puerto Rico

**Expected Completion Quarter:** Q4 2010

**Total Federal Funding Request:** 225,000.00

**In-kind:** 250,000

**Total Proposal Budget:** 475,000.00

**Project Description:**

Planning and assessment: During the first year an assessment of the communities of Piñones and San Patricio will be done. The concept will incorporate a management region that consider the forest or major forest patch as the center of a zone surrounded by communities and residents that are linked to the forest area through natural characteristics (hydrology, forest coverage, etc.). The management region will define the communities that will be directly impacted and integrated in the assessment. The assessment will be the first integration step between the community and the forest because it will include a planning committee joining together community members and the forest managers of the Piñones and San Patricio Forest in a process called Forest Dialogues. Through this process we will identify reforestation needs, neighborhood beautification and safety issues presented by the residents, forest health needs to the urban forest and the environmental education programs to integrate the forests as school resources and healthy recreational centers for the residents will be evaluated. This assessment will provide the information for the development improvement of the forest facilities and a system of interpretive trails in the forests to incorporate the community needs. The assessment will also identify reforestation areas, forest health issues and open spaces that can be integrated in the program. The trails will be arranged to be accessible to all audiences including children, people with disabilities and elderly. We are considering a children's area with educational and traditional games of Puerto Rico. Children also learn about aspects of nature and culture, it also may exercise, which has been lost in recent years because of the video games. Having a sedentary child has led to an increase in childhood obesity and thus different health conditions such as high cholesterol, high blood pressure, diabetes and others. Use forests for this purpose helps educate children in terms of protecting themselves at same time they use and protect the open spaces.

Forests and community improvements: Although the assessment will provide additional information potential UFW that will be developed and establish by the second year we have already identify potential by the response of the visitors to some educational activities conducted at the forests. Some of these include: bird identification, flora identification, insect identification, the value of green elements in urban architecture, the impact of urban sprawl in air and water, techniques for redefining urban green spaces and urban landscape gardening. A series of workshops for adults on planting orchards and home will provide an opportunity to learn the skills necessary to develop their own orchards and nurseries or create their own business. The Piñones forest will be working with the Emiliano Figueroa elementary school plus economical options from the open spaces to the community. For San Patricio forest coordination with the Agricultural Extension Service and the Home Schooling Group, will be some initial programs that will be presented. This project offers an opportunity for these children to take their classes in the forest and at the same time an opportunity to socialize with other children.

The project includes a planned program to integrate communities and their resident to urban forest and open spaces to promote the conservation and benefits of these areas for healthier communities. Through a series of modules and activities that will start with levels of interaction from the schools children to community resident to conclude with a permanent UFW program. The third year will be an evaluation year of the program and UFW's to recommend their potential uses and concepts to similar communities and areas. This project will be coordinated with two site project managers and all the personnel at Piñones and San Patricio will be integrated. There will be agreements with universities and professional services contracts.

## **Evaluation Criteria Discussion:**

**National and Regional Relevance:** This project is of great importance in the cultural and educational aspect for children, neighbors and visitors of the forest, to raise awareness on the conservation of forest systems. The development of activities at the open spaces of the communities will promote the exercise to combat childhood obesity and provide tools for the formation of small businesses in community self-management.

**Prioritization:** Promote the use and conservation in urban forests inter phase integrating the needs of the residents. Also internalize that the forests are more than recreational areas and trails and they contribute to physical, mental, emotional and economics improvement.

**Meaningful Scale:** the project will produce significant information for Caribbean Basin and the Southern States because will test the regional management to define critical areas that most be managed in accordance to the protected area. The propose project can also be important to other territories with similar communities and landscapes. The project can also be seen as an alternative to private land owners with forest remnants to consider other options of use for their lands.

**Collaboration:** a series of community groups and organization will be integrated in the project. Some of these area Corporacion Piñones Se Integra (COPI), Comunidad Asociada de Caparra Heights, Department of Education, University of Puerto Rico, Rio Piedras –Mayaguez - campus, Universidad Metropolitana, Health Department, Sport and Recreational Department and Oficina del Procurador de Persona con Impedimentos. The Department of Natural and Environmental Resources already have a management agreement with COPI and has been doing assessment of the San Patricio management activities with the participation of the Agricultural Extension Service and a social science professor from the University of Mayaguez.

**Outcomes:** develop a series of modules, brochures, posters and activities that will start with levels of interaction from the schools children to community resident and conclude with a permanent concept preliminary called Urban Forestry Workshop (UFW). Develop guides to how to work with people with physical and emotional disabilities. Adults needs and options will be also integrated to produce an educational module as a home schooling option for the forests. The main outcome will be the development of a stronger relation between the communities and the forests because they will be using them and the forest will be improved to accomplish those needs.

**Technology:** Historical data will be integrated with a GIS analysis to Field information and visitor's information will be incorporated in the analyses. The use of focus groups through the forest dialogues activities and qualitative evaluation of the social and community aspect present new approaches for urban forestry management.

**Integrated Delivery:** the project will improve the delivery of public benefits from forest with the integration of the community in the responsibility of protecting their forest. This group will integrate communities and students and nonprofits organizations. The project includes community, universities, and other public agencies. The project also considers

the children and adults levels to reach more public providing options through the Urban Forestry Workshops.

**Leverage:** The project integrates multiple partners and the participation of the Agricultural Extension Services, Department of Education and different universities will be a major contribution to the project because of their technical and personnel resources. One of the main leverage in this project is the participation of community volunteers that will be included through out the project.

**Influence Positive Change:** The project can be an example of integrate work because of a series of partners participating and the community integration. Provide the economic, educative, ecologic significance and providing uses of urban forest inter phase we expect to measure qualitative change on the acting on people that participate in the projects and in the community as the project progress.

**Timelines:** The project is schedule for three years because of its multiple tasks and outcomes. Two project managers will work with the project leader to assure the timeliness of the project. The first year will be a planning and assessment year considering some activities that are already in progress. The management region of both forests will be completed in the first three months to identify the critical areas of integration and interaction for the project. The facilities of the forests will be impacted from the end of the first year through the second year of the project. The Urban Forestry Workshops will be formally established and working from the end of the second year and tested through the third year of the project. The project will be the main activity of the San Patricio and Piñones forests through these years providing the necessary personnel and supervision with the participation of the forest managers.