GLOBAL GRANTS: COMMUNITY EVALUATION RESULTS

Use this form to report to The Rotary Foundation the results of the community evaluation of your global grant application.

Assessing the strengths and weaknesses, needs, and resources of the community you plan to help is an essential first step in designing an effective and sustainable global grant project. See Tools for Identifying Community Needs for instructions and tips.

This form is intended to help you report the results of your evaluation and is required for any grant application involving a humanitarian project or vocational training team. Fill out a form for each beneficiary (e.g., school, health system, or village), using up-to-date, group-specific information. Global grant funds cannot be used to cover the cost of this evaluation (but district grants can fund such activity).

COMMUNITY OVERVIEW

Describe the characteristics (such as geographic data, main sources of income, population size, and access to educational and medical services) of the community in which the project will be carried out.

On March 22, 1996, through Federal Decree No. 1,842, the Committee for the Integration of the Paraíba do Sul River Basin - CEIVAP was established, with the function of promoting, in the scope of water resources management, the technical and economic-financial feasibility of investment programs and the consolidation of urban and regional structuring policies, aiming at the sustainable development of the Paraíba do Sul river basin; and to promote interstate articulation, in order to ensure that regional initiatives of studies, projects, programs and action plans are complementary, integrated and consonant parts with the guidelines and priorities that may be established for the Paraíba do Sul river basin.

Later, on October 1, 2008, by Federal Decree No. 6,591, it was renamed the Paraíba do Sul River Basin Integration Committee - CEIVAP, expanding its area of operation to the current 184 municipalities.

As an Integration Committee, CEIVAP must articulate the management of water resources among the River Basin Committees (CBHs) of the tributaries of the Paraíba do Sul River, which operate in different hydrographic regions of the three states, as shown in the Figure below, integrating policies and programs aimed at the synergy of the actions raised by the committees and by CEIVAP itself.

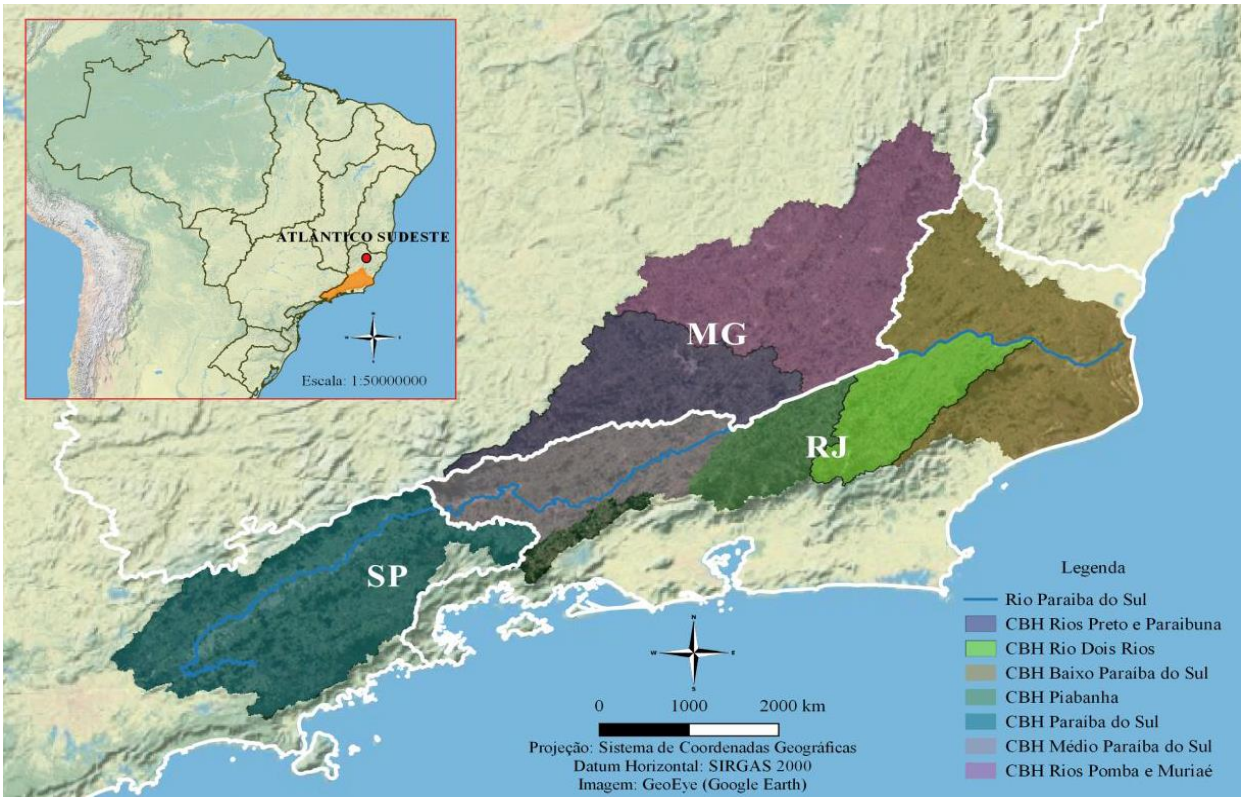

Figure: Area covered by the Hydrographic Basin Committees (CBHs) of the tributaries of the Paraíba do Sul River.

In addition to the function of promoting integration between the CBHs tributaries of the Paraíba do Sul River, CEIVAP is responsible for: defining the framing and reframing of the waters of the rivers in the basin; to propose guidelines for the granting of the right to use water; monitor and direct the actions of AGEVAP, which is the legal figure and executive arm of CEIVAP; approve and monitor the execution of the charge for the use of water in the basin; approve the Integrated Water Resources Plan for the Paraíba do Sul Basin and monitor its execution.

COLLECTING THE COMMUNITY ASSESSMENT DATA

Who did you talk to in the community when you took the assessment? Discussions should include at least two community representatives and beneficiaries who are not involved in Rotary (such as teachers, doctors, or community leaders).

Answer:

The problem was identified after interviews with the actors: (1) Engineer André Luis de Paula Marques, CEO and Technical Advisors of the Association for Water Management of the Paraíba do Sul River Basin - AGEVAP; (2) Environmental Engineer Marcelo Pereira Manara, Founding Partner of WMT Environmental Consulting, with a portfolio of more than 5 million trees from the Atlantic Forest implanted and President (2023/2025) of the Basin Agencies, of the Paraíba do Sul River Basin Integration Committee – CEIVAP; (3) Rural Union of Cruzeiro/SP and Companhia Siderúrgica Nacional - CSN (representing the users of water resources in the basin).

The Basin Plan consists of medium and long-term planning for the management of water resources, and for the Paraíba do Sul River Basin, CEIVAP has chosen as priority lines of action, among others, the recovery and protection of water sources.

When did the discussions take place?

Answer:

Between July 2023 and April 2024

What methods did you use to gather information from community members (e.g., community meetings, interviews, or focus groups)?

Answer:

Interviews.

TARGET POPULATION

Who will directly benefit from the project? List the groups that will benefit (such as schools, hospitals, vocational training centers, cooperatives, or villages).

Answer:

The Paraíba do Sul River basin covers an area of approximately 55,500 km². This river is one of the most important for the Southeast Region, providing water for more than 14 million people. However, the basin has faced challenges related to pollution and water scarcity, arising from population growth, industrial and agricultural activities.

The Paraíba do Sul basin is one of the most explored in Brazil due to its geographical location and economic importance. It supplies large urban centers, industries, and is vital for agriculture in the region. However, decades of inappropriate use, industrial pollution, and the lack of effective water management policies have compromised the quality and quantity of water available.

The **inhabitants of the cities** located in the basin are the first to feel the effects of improvements in water supply. Municipalities such as São José dos Campos, Resende and Campos dos Goytacazes depend on the Paraíba do Sul River for the supply of drinking water. Also included, among the inhabitants of the cities, are the populations of the two metropolitan regions (São Paulo and Rio de Janeiro), which benefited from the transposition of the waters of the Paraíba do Sul River.

Agriculture, especially the irrigation of crops of great economic importance, such as rice and sugarcane, is highly dependent on the availability of quality water. Improved water flow and water purity benefits farmers by ensuring greater water security, improving crop yields, and reducing the impacts of droughts.

The **industrial sector**, responsible for a large portion of the water demand in the basin, is also benefited. Industries installed throughout the basin, such as pulp and paper, chemical and steel, use large volumes of water for production processes.

Finally, in the Paraíba do Sul River basin there are several **hydroelectric plants**, which depend on regular and predictable water flows to ensure the generation of electricity.

Describe the process used to identify beneficiaries.

Answer:

The first step in the process of identifying beneficiaries is to map all water users in the basin. This includes:

- Urban and rural population that uses water for domestic supply and personal consumption;

- Farmers who depend on water to irrigate their crops;

- Industries that use large volumes of water for production processes;

- Sanitation companies responsible for the treatment and distribution of drinking water and sewage treatment;

- Power generation sectors, such as hydroelectric plants that depend on constant water flow;

- Environmental organizations and communities that work to preserve local ecosystems.

This survey is carried out through official records, user registrations and public consultations, allowing a detailed mapping of the different sectors and actors dependent on the basin's water resources.

STRENGTHS, NEEDS AND PRIORITIES OF THE COMMUNITY AND PROJECT DESIGN

Describe what community members said is important to them during the evaluation.

Answer:

Hydrological Impact Analysis: After mapping the users, a hydrological impact analysis is carried out, aiming to understand how improvements in water quality and quantity affect each group. This analysis involves: (1) Hydrological modeling to simulate scenarios for improving the amount of water available, considering factors such as increased flow and regularization of rainfall regimes and (2) Water quality monitoring, using pollution data, physicochemical and biological parameters to identify improvements in effluent treatment, pollutant control and restoration of water bodies.

This data provides a scientific basis for estimating the direct and indirect gains from better water resource management, allowing a clear picture of who benefits in terms of increased water supply and pollution reduction.

Public Consultation and Social Participation: CEIVAP promotes public consultations and discussion forums with representatives of different sectors, ensuring that all water users have the opportunity to express their needs and concerns. These events allow: (1) Survey of user expectations and demands, such as improvements in supply, cost reduction or increased water security and (2) Collection of information on the impacts of improvements, allowing the identification of which sectors perceive the greatest benefits and in which areas there are still challenges to be overcome.

This step is essential to ensure that water management is transparent and participatory, with the inclusion of all sectors, especially the most vulnerable communities.

Describe the strengths and resources of the community.

Answer:

The process of identifying the beneficiaries of the improvements in the Paraíba do Sul river basin proposed by CEIVAP is based on a participatory, scientific and multidisciplinary approach (strengths). The resource involves a detailed analysis of hydrological impacts, consultation with water users and an economic evaluation of the gains, aiming to ensure that water management actions benefit all involved in a broad and sustainable way.

Describe any challenges and gaps in community behaviors, skills, and knowledge.

Answer:

Economic and Social Evaluation: To quantify the benefits of improvements, CEIVAP conducts economic and social evaluations, estimating the gains in terms of: (1) Reduction of water and sewage treatment costs for companies and municipalities; (2) Increased agricultural productivity, due to the greater availability of quality water for irrigation; (3) Improvement in public health, with the reduction of water diseases and reduction of health expenditures, and (4) Preservation of ecosystem services, which benefit not only the environment, but also economic activities such as fishing, tourism, and environmental education.

Continuous Monitoring and Review: Finally, CEIVAP implements a continuous monitoring system to track the results of improvements in water quality and quantity, allowing for periodic reviews in the process of identifying beneficiaries. This involves: (1) regulating the quality of the water at the main points of the basin; (2) Assessment of social and economic impacts** through development and quality of life indicators and (3) Review of policies and investments, ensuring that benefits are distributed equitably and sustainably over time.

What problems does the project aim to solve, and how does the community currently deal with those problems?

Answer:

The Classification of Beneficiaries: Based on the information collected in the previous steps, CEIVAP categorizes the beneficiaries of improvements in water quality and quantity as follows:

Direct beneficiaries, which are those whose activity or well-being depends directly on the quantity and quality of water, such as: (1) Urban population for drinking water supply; (2) Industries that use water in their production processes; (3) Farmers who depend on irrigation.

Indirect beneficiaries, which are those who benefit from the secondary effects of water improvement, such as: (1) The community in general, due to the reduction of water-related diseases; (3) The tourism and leisure sector, which can better exploit preserved natural resources and (4) The environment, with the recovery of ecosystems and increased biodiversity.

Provide the specific details of the project and how it will solve these problems.

Answer:

Through PRISMAs (Participatory Projects for the Enhancement of Environmental Services in the Target Watershed), water-related problems in the Watershed are identified (loss of water quality, seasonal or perennial unavailability, etc.) and intervention measures are planned in the form of works and services (ecological restoration, PES mechanisms, etc.). PRISMA is coordinated by AGEVAP and in the 1st Cycle effectively prepared and kept up to date by the Secretariat of the CEIVAP Watersheds Program and built in a participatory way with the other actors, mainly the Collective of Land Owners of the microbasin.

With resources from the Rotary Foundation Global Grant, Rotary hired the "Executor of Work", responsible for executing the interventions provided for in the PRISMAs. All the works are monitored by the various actors, and Rotary is responsible for the implementation of the works, as follows: (1) Hiring of an institution specialized in providing area isolation services through fencing and fencing in rural properties contemplated in the micro-basins that make up the initial lot of the PRISMAs of the CEIVAP Watersheds Program; (2) Hiring of an institution specialized in the process of ecological restoration, which encompasses (recovery; rehabilitation; recomposition and reforestation (native species),

aiming directly at the recovery of water sources, capable of reducing flood peaks, soil erosion and creating better management conditions for agriculture) and (3) Monitoring of the development and maintenance of planted tree species and Payment for Environmental Services – PES for 36 months.

Describe the long-term plan for the project (e.g., oversight, financial responsibilities, and expected behavioral change) after Rotary completes its involvement in the initiative.

Answer:

Financial Oversight and Accountability:

Hydrographic Basin Committees, such as the Paraíba do Sul River Basin Integration Committee (CEIVAP), play a fundamental role in the integrated and participatory management of water resources. The following are some of CEIVAP's strengths:

Integrated and Sustainable Planning: CEIVAP is premised on the integrated management of the basin, which means that planning holistically considers economic, social, environmental, and water aspects. This results in: (1) Long-term planning, with strategies aimed at the sustainable use of water resources and (2) Coordination between different sectors, such as agriculture, industry, and the environment, ensuring that actions benefit everyone without compromising future resources.

Technical and Scientific Capacity: CEIVAP has qualified technical support, which assists in the development of studies, analyses and diagnoses on the Paraíba do Sul river basin. This allows: (1) Decision-making based on scientific and technical data, ensuring effective solutions to water quality and quantity problems and (2) Continuous monitoring of water resources, with the use of management tools that identify critical areas and monitor water quality.

Investment in Recovery and Conservation Projects: CEIVAP also stands out for financing and supporting projects to recover degraded areas and protect water sources. This includes: (1) River depollution projects, reforestation of riparian forests and erosion control and (2) Environmental education initiatives, which promote the conscious use of water and involve the community in the conservation of water resources.

Expected behavioral changes:

Soil conservation practices: Practices related to the sustainable use of soil in agricultural production and includes practices such as: (1) Crop rotation; (2) No-tillage; (3) Soil correction and (4) Green manure.

Considering that 39.94% (2.4 million ha) of the Paraíba do Sul River basin is occupied by pasture, mostly poorly managed pasture, which contributes to soil degradation and significant loss of ecosystem services, the recovery of water sources will fatefully depend on the recovery of these pastures.

Vegetative soil conservation practices: Practices aimed at maintaining, recovering, or expanding soil cover with an adequate type of vegetation that mitigates the impact of raindrops under the soil, and reduces the speed of surface runoff and increases the infiltration capacity of water into the soil.

These practices have great potential for generating positive externalities that go beyond the direct benefits on water resources, among these, the following can be mentioned: (1) increased soil fertility, with nutrient cycling and favoring soil biological activity; (2) carbon sequestration; (3) increased biodiversity; (4) habitat for pollinators and natural enemies of pests and diseases from local agricultural activities; (5) recovery of aquatic ecosystems; (6) recomposition of the scenic beauty of the landscape and (7) stability of the local microclimate.

ENVIRONMENTAL ASSESSMENT (FOR ALL ENVIRONMENTAL AND WATER, SANITATION AND HYGIENE PROJECTS)

Currently, what are the biggest environmental threats to local soil, air, ecosystem, and water resources?

Answer:

The hydrographic basin of the Paraíba do Sul River, one of the most important in Brazil, plays a crucial role in the supply of water for various purposes, such as public supply, agriculture, industry and environmental preservation. This article analyzes the main beneficiaries of improvements in water quantity and quality in the basin, highlighting the impacts on local population, productive sectors and ecosystems. The study shows that improving the management of water resources brings direct and indirect advantages, promoting environmental sustainability and social well-being.

List any cultural practices relevant to the project (such as farming techniques or traditions).

Answer:

Once the opportunity for "ecological restoration" has been identified in PRISMA, it can be financed by Payment for Environmental Services (PES) arrangements in the target watershed. PES arrangements must have at least one user-payer and one conservator-receiver, duly recognized by the actors that make up this arrangement.

The legal framework and economic sustainability for the proper functioning of this PES market should be considered. It is essential that the PES mechanism is autonomous and does not depend on financial resources from CEIVAP's MANIANCIAL PROGRAM to work in the medium and long term (>/= 3 years).

PES arrangements are contractual transactions, voluntarily agreed between the parties, through which a payer, who is also the beneficiary or user of environmental services, transfers to a provider of these services financial resources or other form of remuneration, under the conditions previously agreed upon and in compliance with the legal and regulatory provisions related to this transaction.

What positive and negative environmental changes do you expect to result from the project?

Answer:

Environment and Biodiversity: The recovery and preservation of the basin's aquatic ecosystems are also fundamental. Local fauna and flora, often threatened by pollution and reduced water quantity, benefit from actions that promote water quality. The improvement in water quality helps in the maintenance of wetlands, the preservation of endemic species and the balance of aquatic and terrestrial ecosystems.

Social and Economic Impacts: Improvements in water management in the Paraíba do Sul River basin also have significant social and economic impacts. In the social sphere, water security guarantees access to drinking water for vulnerable communities, contributing to the reduction of inequality and the promotion of social well-being. In the economic field, productive sectors that depend on water, such as agriculture, industry, and tourism, experience productivity gains and reduced operating costs. In addition, environmental recovery can boost ecotourism, generating jobs and income for the local population.

Challenges and Opportunities: Despite the advances, the management of the Paraíba do Sul river basin still faces challenges. Increasing water demand, climate change, and ongoing pollution require innovative solutions and effective public policies. The involvement of local communities, the use of technologies for water monitoring, and the strengthening of partnerships between governments, companies, and environmental organizations are promising ways to overcome these challenges**.**

Adaptation to Climate Change: Another strength is CEIVAP's ability to integrate measures to address the challenges of climate change into its policies and actions, such as: (1) Adaptation to water variability**, with the creation of policies to mitigate the effects of droughts and floods and (2) Promotion of nature-based solutions, such as the preservation of ecosystems that help regulate the hydrological cycle of the basin.

Transparency: CEIVAP adopts transparency mechanisms, which strengthens society's trust in the committee. The dissemination of reports, data on water quality and the use of financial resources collected by charging for the use of water are important practices that: (1) Strengthen the credibility of the committee** with users and the population and (2) Social participation in decision-making processes and in the monitoring of the committee's actions.

Incentive to Innovation and Sustainable Technologies: Finally, CEIVAP stands out for supporting innovative solutions that promote water sustainability. This includes: (1) Use of water quality monitoring and water management technologies, such as sensors and digital platforms, and (2) Promotion of research in areas related to the recovery of water sources, efficiency in water use and pollutant control.