WATER, SANITATION, AND HYGIENE GUIDELINES FOR GLOBAL GRANT FUNDING

These comprehensive guidelines are for Rotary members who want to apply for a global grant from The Rotary Foundation to support water, sanitation, and hygiene activities. You can use the links below to go directly to the section you're most interested in, but we encourage you to read the whole document for a full understanding of the guidelines before you apply for a grant.

WHERE CAN I FIND MORE INFORMATION?

WHAT ARE THE ROTARY FOUNDATION'S GOALS FOR WATER, SANITATION, AND HYGIENE?

Rotary's approach aligns with Goal 6 of the UN Sustainable Development Goals, to ensure the availability of and sustainable management of water and sanitation for all by 2030. We support this by:

- Improving universal and equitable access to safe and affordable drinking water
- Improving water quality and security by protecting and maintaining surface water and groundwater resources, reducing pollution and contaminants, constructing climate-resilient infrastructure, and promoting wastewater reuse
- Improving universal and equitable access to improved sanitation and waste management services in order to achieve open defecation-free communities
- Improving community hygiene knowledge, behaviors, and practices that help prevent the spread of disease and sustain services
- Strengthening the capacity of governments, institutions, and communities to develop, finance, manage, and maintain sustainable water and sanitation services
- Funding graduate scholarships for career-minded professionals related to water, sanitation, and hygiene

HOW DO I CONDUCT A COMMUNITY ASSESSMENT FOR WATER, SANITATION, AND HYGIENE?

Community assessments identify where our support is needed most and the role Rotary members can have in making a difference. An assessment will illustrate a community's strengths, assets, needs, and challenges and will help you work with local residents on solutions. Sustainable projects use the assets in a community to build self-reliance and reinforce local residents' commitment to the project. These assets might be people's skills and talents, as well as resources that local institutions contribute to the community. You can learn more about how to conduct an effective community assessment in Rotary's Community Assessment Tools handbook.

The assessment, coupled with regional or district-level data, can help you identify gaps in water, sanitation, and hygiene services and better understand why they exist. Community meetings, asset inventories, surveys, interviews, focus groups, and community mapping are effective ways to collect information about a community's water, sanitation, and hygiene needs and assets.

All of this information helps you understand the local situation and allows you and the people who'll benefit from the project to make informed decisions about its priorities. By learning in depth about the community, you'll find the best opportunities for service and maximize your ability to make an impact. Project sponsors (often in conjunction with a cooperating organization) need to conduct a community assessment before applying for a grant. If an assessment has already been done, use the relevant data to design your project. **The Foundation will not consider projects without a community assessment.**

Use the community assessment process to:

- Help you define the community you're assessing which can include households, schools, health care facilities, public spaces, or any combination of those.
- Gather perspectives from a broad cross-section of the community, including women, young people, professionals, and the most vulnerable.
- Speak with residents to find out their development goals and what needs they perceive as the most critical. Work with them to identify the long-term goals and expected outcomes of the project. Make sure you speak with specific groups of people for different project types.
    - For projects that involve communities or households, talk to community leaders; women; members of marginalized and vulnerable groups (such as elders, children, and people with disabilities); members of the water, sanitation, and hygiene management committees; direct technicians and engineers; local government authorities
    - For projects that involve schools, talk to teachers; students; parents; school administrators; cleaning and maintenance staff members; local government education officials; members of the school water, sanitation, and hygiene management committee; adjacent community members
    - For projects that involve health care facilities, talk to cleaning and maintenance staff members; hospital administrators; health care staff members; regional health ministry officers; patients; members of the health care facility management committee
    - For projects that involve public spaces (such as markets or bus stops), talk to small business owners; members of market councils or cooperatives; public health officials; people from neighboring communities
- Identify any major water, sanitation, and hygiene initiatives already being implemented in the area and the leaders of those activities (government agencies, nongovernmental organizations, or private groups). Can you align your activities with those to maximize your resources and impact?
- Understand the regional environmental conditions and human activities that will affect the availability and quality of water resources. You can get technical data, such as hydrogeological surveys and environmental assessments, from local and national government offices, environmental firms, and private drillers.
- Understand and align the project with local government initiatives, standards, and policies for water, sanitation, and hygiene.
- Assess the commitment of the community to work, learn, adapt, and take over the operation of the proposed infrastructure and services.
- Assess whether the people involved in the project have the necessary technical and financial skills to sustain the proposed services.
- Understand how much engagement and support the local government offers the community and

the water, sanitation, and hygiene system. Identify gaps in skills, knowledge, and familiarity with water, sanitation, and hygiene policies.

- Use population data and growth estimates to determine future demands for water, sanitation, and hygiene services so that you can design a system that can expand. Work with an engineer or hydrologist to perform these calculations.
- Gather baseline data before the project so you can measure your results.

In your grant application, summarize the results of the community assessment and describe:

- How the project will address the needs prioritized by the community and improve existing assets, such as nonfunctional infrastructure, local government engagement, and water, sanitation, and hygiene management committees
- The measurable changes that you expect by the end of the project
- Who conducted the assessment and the technical water, sanitation, and hygiene experts you consulted
- How you collected the information (e.g., community meetings, focus groups, interviews, asset inventories, or community mapping)
- What groups of people participated in the assessment
- The environmental context relevant to the project, such as:
    - Primary and secondary water sources
    - The availability and quality of surface water and groundwater supplies in the area
    - Geological and climatic factors that would affect water security
    - The identification and size of the watershed where the project will be implemented
    - Significant human activities (such as industry, agriculture, or open defecation) in the watershed that would affect water and sanitation conditions
- The policy context relevant to the project, which includes identifying:
    - National guidelines and standards for water, sanitation, and hygiene
    - Regional and local government authorities who are responsible for water, sanitation, and hygiene services and compliance
- Relevant socioeconomic and demographic information about each community, such as:
    - Average household income
    - Percentage of households that pay for water and sanitation services
    - Population size and makeup
    - Living conditions
- The existing water and sanitation infrastructure for each community and its functionality

- How the community currently manages human waste
- Knowledge, attitudes, and practices in the community, specifying which ones will be the focus for behavior change programs
- Existing water, sanitation, and hygiene promotion, public campaigns, and behavior change communication activities
- The availability of materials and products from local markets to support the operation, maintenance, repair, and replacement of water, sanitation, and hygiene systems

HOW DO I MAKE MY PROJECT IN WATER, SANITATION, AND HYGIENE SUSTAINABLE?

For Rotary, sustainability means providing long-term solutions to community needs that local residents can maintain after the grant funding ends. We focus on the strategic implementation and improvement of water, sanitation, and hygiene services to communities, schools, and health care facilities, with clearly defined objectives and verifiable and measurable outputs and outcomes. Pay careful attention to the following items to increase your project's likelihood of sustainability. **The Foundation will not consider projects without a clear plan for sustainability**.

Materials and technology

Use the community assessment results to determine the infrastructure, material, and technology that will be used in your project. The results will help you guide stakeholders to select affordable materials, infrastructure designs, and technology that will best fit their cultural, technical, financial, and environmental conditions. Consider the benefits and costs of several different options. Discuss the operation and maintenance needs of each system, the associated costs, the technical skills needed in the community, and management expectations.

The grant application should:

- Describe and justify the infrastructure, materials, and technology that are being proposed. Be sure to address how these choices fit into the financial, social, and economic context of the community. When you can, refer to evidence of field efficacy, durability, and any successful adoption of the technology in the region.
- Explain how this equipment or technology is essential or related to the project's objectives.
- Provide an operation and maintenance plan (including regular monitoring) for proposed construction and technology, created with the community's input. Identify the people or entities responsible for these activities.
- Provide a technical training plan for the people or organizations that will be operating, maintaining, and repairing any equipment or infrastructure. When possible, include women in all technical training opportunities.
- Provide a technical appraisal for any technology that will be new to an area or considered

innovative. The appraisal needs to include:

  - A comparative assessment and justification for selecting that technology, undertaken by a qualified and independent local technical adviser or a member of the Cadre of Technical Advisers
  - A formal agreement with the community and the relevant local government authority confirming that they will have the capacity, financing, and technical knowledge to monitor, operate, and maintain the new technology

- Describe whether the materials and technologies will be available locally.
- Describe how the materials, technology, and infrastructure will be secure from theft and vandalism.
- Identify the technical experts you consulted, preferably a locally licensed engineer or the equivalent, who has reviewed and certified all the system designs.
- Confirm that a construction engineer or an equivalent technical professional will assess the construction quality. Include the salary cost in your budget or explain how it will be paid for.

Materials and technology resources:

- Technology Notes from WaterAid
- Decision & Assessment Tools from Akvopedia

Financial planning

The current levels of local financing aren't sufficient to meet the UN targets to achieve universal access to safe and affordable drinking water, sanitation, and hygiene. So on all water, sanitation, and hygiene projects, we need to implement sustainable financing strategies. Work with communities, governments, private enterprises, and other organizations to ensure that local funding sources can pay for the ongoing operation, maintenance, training, and replacement costs of the proposed infrastructure, new technology, training, education, and behavior change programs.

The grant application should:

- Describe activities that the community, government agencies, nongovernmental organizations, or private entities have planned to generate future funding. (The Rotary Foundation and clubs cannot provide indefinite support).
- Document the available support for the project, if applicable, from the relevant government ministry or authority, including funding for current or recurring costs, advocacy, policy implementation, training, education, allocation of personnel, and materials.
- List foundation or private-sector partners that support, or may support, the project and will continue to do so after the global grant is complete.

- Describe any fee-for-service, insurance, or revolving funds that may provide sustained revenue for the project.
- Describe whether households, schools, or health care facilities will be charged a fee to use the water and sanitation services and how those payments will be collected. Explain how the fees were determined by local residents, based upon their ability and willingness to pay. If your project won't be using a pay-for-service model, list other reliable sources of revenue (e.g., government subsidies, microfinance loans, or social entrepreneurship) that the community can seek.
- Use the Financial Sustainability Planning Template to estimate the costs of operating, maintaining, and repairing the proposed water, sanitation, and hygiene systems and estimate the financing needed for one, five, and 10 years after the global grant funding has ended. Consider these items and activities when you estimate the costs:
    - Operation and maintenance
    - Minor repairs, materials, and parts
    - Consumables and supplies
    - Cleaning
    - Education, promotion, and behavior change campaigns
    - Labor (salaries), professional services, management, transportation, or fuel
    - Energy and chemicals
    - Asset replacement and repair
    - Monitoring and evaluation

Consider these factors when you identify and quantify the financing sources for your project:

- Community-based funding sources can include household tariffs and fees, government and public financing, private sector and nongovernmental financing, or income-generating activities.
- For-profit models should include a business plan with projections for at least five years of annual sales, cost per unit, target customers, operation and maintenance costs, and projected revenue. We strongly recommend that you couple the business plan with a market assessment in order to gauge demand for the water and sanitation services.
- Incorporate a pay-for-service system and other cost-recovery mechanisms to ensure sustainability where possible.
- Consider the potential of microcredit options for water use beyond basic needs. If microcredit will be used to fund part of the project, follow the microcredit requirements found in Terms and Conditions for Rotary Foundation Global Grants.
- Assess the financial risks, such as price increases, currency fluctuations, and a reduction or loss of income sources. Include funds for these risks in the project contingency. Attach a copy of all memorandums of understanding or terms of agreement secured for financial commitments or in-kind services to be provided by other organizations and governments.

Training and education

The sustainability of water, sanitation, and hygiene systems relies largely on the education and training component. In order to last, the infrastructure and services need to be managed and maintained by people who have relevant knowledge and skills. The infrastructure and services also need to be supported and used by community members in a responsible and informed way.

Rotary's water, sanitation, and hygiene projects need to work toward strengthening the skills and knowledge among stakeholders and users identified by the community assessment. Therefore, global grant applications need to include these training and education plans:

- For water operators or community-based technicians:
    - Identify any gaps in technical knowledge and skills in the community
    - Identify the training or educational objectives and outcomes
    - Specify what skills and knowledge the participants will acquire
    - Identify the target audience who'll receive the training
    - Specify the training topics and the source of the training materials
    - Include a training schedule (duration and frequency), including review training
    - Identify the people or entities that will conduct the training and explain their qualifications
    - Describe how the skills and knowledge will be transferred to new local technicians
    - Describe the agencies or organizations that will provide advanced technical support for the long term
    - Describe the monitoring and reporting roles and responsibilities for technical operators or community-based technicians
    - Include line items in your budget to support all proposed activities, and if the training or education relies on an external source, identify for each organization the amount of funding to provide it that's specified in the memorandum of understanding
    - Include the costs associated with retraining activities in the long-term financial plan
    - Include a written agreement or memorandum of understanding from stakeholders who are committing expertise, labor, resources, and financing for training and ongoing educational programs
- For management committees:
    - Identify any gaps in the committee's financial and managerial capacity and capability
    - Identify the training or educational objectives and outcomes
    - Specify what skills and knowledge the management committees will acquire
    - Identify training topics, including how to collect tariffs and what to do if someone doesn't pay

- Include a training schedule (duration and frequency), including review training
- Identify the people or entities that will conduct the training and explain their qualifications
- Describe how the skills and knowledge will be transferred to new management committee members
- Include an itemized budget to support all proposed capacity-building activities. If training or education relies on an external source, identify for each organization the amount of funding to provide it that's specified in the memorandum of understanding
- Include the costs associated with retraining and monitoring activities in the long-term financial plan
- Include a written agreement or memorandum of understanding from stakeholders who are committing expertise, labor, resources, and financing for training and ongoing educational programs

Behavior change

Providing infrastructure alone doesn't lead to significant or sustained outcomes for water, sanitation, and hygiene projects. A better strategy is to focus on creating demand for improved water and sanitation by changing people's behavior, which doesn't come from education alone. Our projects need to address the gap between knowledge and behavior change. "For behavior to change, people's mindsets must change, because all behavior is based on processes in people's minds: Knowledge is activated, beliefs and emotions rise to the fore, and an intention to perform a particular behavior emerges, eventually resulting in observable behavior." (Mosler & Contzen, 2016)

Behavior change programs that use standalone educational interventions, such as talks, posters, or pamphlets, are only minimally effective. More effective is to use a combination of multiple, context-specific promotional approaches, based on a thorough understanding of people's behavior and what causes it. Therefore, we strongly encourage you to develop behavior change programs that actively involve the community and that use strategies that target and change the factors influencing a specific behavior in a population.

To create an effective program, you need to first assess and understand people's knowledge, attitudes, and practices related to the water, sanitation, and hygiene intervention you plan to implement. Asking these kinds of questions to a targeted audience can reveal misconceptions or misunderstandings that may be obstacles to the activities that you want to implement and barriers to behavior change. These kinds of questions essentially record people's opinions, which you can compare with the community's actual practices. Once you identify and understand the factors that determine people's behavior, you can address them more effectively through specific techniques and incentives. As an example, people accustomed to openly defecating may not change their behavior based on an increased awareness of the personal and communal health benefits — but they might spend money and change their habits and use an improved toilet in order to avoid embarrassment if it becomes a source of pride among family and friends, or if

doing so is readily adopted by influential households.

This process requires experience in the community. You should seek expertise from local health, water, or sanitation departments or from nongovernmental organizations to assess, design, and implement hygiene promotion or behavior change programs. Use training and educational resources that fit the language and culture where possible.

Global grant applications need to include plans for behavior change programs that include:

- An assessment of the behavioral factors, knowledge, attitudes, and practices in the community. This may include:
    - What people say are the main sources of drinking water for their households
    - Whose responsibility it is to collect water
    - Details about daily water collection, including the distance to water sources and how much time it takes
    - What people say about the availability and physical status of water sources
    - People's attitudes about collecting and handling water and how they store it
    - The community's water treatment practices and rationale for them
    - Whether a water management committee exists, how active it is, and what training the members have
    - Common defecation practices and people's access to and use of functional latrines
    - How feces are disposed of
    - People's handwashing practices at proper times and their understanding of the importance of soap or ash
    - People's understanding of disease transmission and waterborne illnesses
    - People's knowledge of what menstruation is and how to manage it
    - People's willingness and ability to pay for water and sanitation services
    - How much water is used for irrigation and how it is used
- Objectives and outcomes for behavior change that specify which behaviors you'll focus on, such as:
    - Defecating in the open
    - Disposing of feces
    - Washing hands with soap
    - Conserving water
    - Handling and storing water safely

    - Managing menstrual hygiene
    - Using food hygiene practices
    - Practicing personal hygiene
- A description of the behavior change techniques or methods that you'll use:
    - In schools, the training should build the skills of teachers to successfully implement hygiene education and develop healthy habits among students.
    - In health care facilities, the training should promote hand washing, handling water safely, and cleaning.
- A brief description of how the proposed programming will build or improve upon existing programs, campaigns, and behaviors in the community
- An outline or actual materials for the training program or curriculum
- Identified trainers and attestations of their training qualifications and experience in behavior change
- The target audience of the programs and training
- The frequency and duration of the programming
- Plans for how knowledge and behaviors will be reinforced and encouraged beyond the project cycle
- Indicators to track and measure changes in behavior
- A budget to support all proposed activities, listing organizations and their contributions if behavior change programs rely on external sources, and including the memorandum of understanding to confirm what services they are providing
- A long-term financial plan
- A written agreement or memorandum of understanding from stakeholders who are committing expertise, labor, resources, and financing for training and ongoing educational programs

Behavior change resources:

- Mass Behaviour Change Campaigns from WaterAid
- Behavior Change Manual from Helvetas

Governance

Establishing a system of good governance, from policy to service provision, increases the likelihood of effective decision-making and project management, which are critical for success. The governance system will have a significant impact on the design, planning, and delivery of services, so consider carefully how you and your partners will identify and establish a system that's appropriate for the cultural and social setting. Make sure you have the support of the community and other project participants.

The basic elements of good governance include:

- The participation of all stakeholders to reach a broad consensus about what's in the best interests of the community
- Making decisions in a transparent way and according to established rules and regulations
- Ensuring equity and inclusivity for all members of society, particularly women, poor people, and the most marginalized
- Accountability for the decisions that have been made and implemented

For most water, sanitation, and hygiene projects, the community where the intervention is based or the local water and sanitation authority will ultimately become responsible for operating, maintaining, and repairing the new systems. It's important to connect with the local authority while you're conducting the community assessment in order to understand their level of activity, roles, and responsibilities. We advise you to set up a self-assessment with the local authority and those that they're accountable to about their performance. You can work as partners with water, sanitation, and hygiene management committees and community members to identify areas for improvement, create a plan to improve performance, transparency, and accountability, and mobilize any needed resources.

The responsibilities of the local water, sanitation, and hygiene committee will vary by location, but generally include:

- Managing the community water and sanitation systems
- Promoting sanitation and hygiene education in the community, even after behavior change programming has concluded
- Determining the service fees that will be requested from households and institutions to pay for operating, maintaining, and repairing water and sanitation systems
- Providing oversight for financial, administrative, monitoring, and day-to-day operations

When you and your community partners are formulating a governance system, remember:

- The need to strengthen existing local governance systems and management committees in water and sanitation first before creating a new management body
- The importance of training and support to ensure the long-term viability of newly established management committees
- The need to maintain the skills and knowledge within the governing body to ensure succession planning and smooth transitions through changes in membership
- The importance of maintaining strong connections with the community, the government, and other supporting entities. These groups can provide management, financial, and technical support

to help the committee be more effective

- The need to comply with national government standards and guidelines when establishing a water, sanitation, and hygiene management committee

Your global grant application needs to explain how you'll work to strengthen existing governance and management systems for water, sanitation, and hygiene. It should include:

- A brief description of the relevant policies and governance systems in place to make decisions related to water, sanitation, and hygiene in local communities, schools, or health care facilities.
- A description of the function and composition of the local governing and management body, including people's roles and duties, that will be responsible for the proposed system.
- A description of how the project will prepare the committee to be a fully functional governing body that will effectively manage water and sanitation systems, support hygiene promotion activities, and collect user fees. Provide the detailed training plan specified above.
- Details about how the committee will operate, including membership, reporting, means of resolving issues, and the rules for making decisions.
- A letter from the appropriate government or regulatory entity expressing its awareness of, support for, and involvement in the construction, training, and educational activities you proposed. The letter should also state that all activities align with government initiatives, standards, and guidelines.
- Details about the percentage of women on the management committee and their roles.

WHAT TYPES OF PROJECTS AND ACTIVITIES ARE ELIGIBLE FOR GLOBAL GRANT FUNDING?

The Foundation considers the following activities to be within the scope of water, sanitation, and hygiene:

- Improving access to safe drinking water, including projects focused on water supply, storage, purification, treatment, and source water protection.
- Improving access to sanitation, which means collecting, treating, and disposing of human waste through sanitation infrastructure and fecal-sludge management, treatment, and disposal.
- Providing education that promotes healthy behaviors such as hand washing, safe disposal of human waste, safe water storage, and menstrual hygiene. The project needs to identify the barriers that prevent positive behaviors from being adopted and describe how those barriers will be addressed.
- Providing solid-waste management systems, which means collecting, treating, and disposing of solid waste materials.
- Using water resource management approaches, such as water conservation, water source protection, and groundwater recharge.
- Supplying water for crop, livestock, and fisheries production.

- Developing sustainable management practices to support water and sanitation services, including community governance, financing and planning, system maintenance, and delivery.
- Planning for and implementing strategic initiatives that build the leadership capacity of civil society (including rotary members), communities, and local government to advocate for sustainable water, sanitation, and hygiene services and financing.

Global grants commonly fund the following types of water, sanitation, and hygiene projects, and for each type the outcomes need to be quantifiable. Please pay close attention to the eligibility requirements and the information that needs to be submitted with your application.

The Foundation assesses each project individually. If your project type isn't among those described below but is clearly linked to the activities listed above, contact your regional grants officer, the area of focus manager, the Water and Sanitation Rotary Action Group, or a member of the Cadre of Technical Advisers who specializes in water, sanitation, and hygiene early during your planning for help designing the project and applying for a grant.

Water supply

Safe and readily available water is important for public health and can boost economic growth, whether it's used for drinking, domestic use, food production, or recreation. But more than 2 billion people lack safely managed drinking water services, meaning water from an improved source on the premises that's available when needed and free from fecal and chemical contamination.

Improved water sources include piped water, boreholes or tubewells, protected dug wells, protected springs, rainwater, and packaged or delivered water. Stark sociocultural and economic inequalities persist, not only between rural and urban areas but also within towns and cities, where people living in low-income or informal settlements have less access to improved sources of drinking water.

Projects organized by Rotary members are often aimed at supporting UN Sustainable Development Goal target 6.1, working with communities and governments to provide universal and equitable access to safe and affordable drinking water.

For your project to be eligible, you need to provide:

- A community assessment: In addition to meeting the more general guidelines above, for a water supply assessment you should aim to:
    - Learn whether national water, sanitation, and hygiene monitoring systems exist and which government authorities have oversight and responsibility of these services. Gather available local, district, and national monitoring data to gain a broad understanding of the regional

sanitation situation.

  - Consult with public or private environmental institutions for hydrogeological data, surveys, and climate information for regions where water resource management, watershed management, groundwater extraction, or aquifer recharging projects are proposed.
  - Briefly describe the target community as urban or rural and describe the size and density of the population, the level of economic development, the technical capacity in water and sanitation, and the governance systems in place for water, sanitation, and hygiene.
  - Identify the existing water, sanitation, and hygiene infrastructure in the community and whether it works.
  - Identify primary and secondary water sources and water quality.
  - Understand and summarize the principal water uses for each community. Consider and include factors that may influence the water quantity (such as seasonal variations) and quality (such as farming or mining discharges, poor storage practices, or open defecation).
  - Include a root cause analysis in your assessment for any water supply projects that aim to improve service levels and repair water, sanitation, and hygiene systems. Ineffective local policies, poor management practices, insufficient financing, and a lack of capacity are common factors that lead to inadequate water, sanitation, and hygiene services.
  - Identify the specific impact of an inadequate water supply and water of inadequate quality on public health. Corroborate this with evidence from the local community, where possible.
  - Identify the knowledge, attitudes, behaviors, and practices that may present barriers to the successful adoption and use of a safely managed water supply. Understanding the underlying causes of behavior is necessary in order to develop effective behavior change interventions.

- A monitoring and evaluation plan: This is the specific plan to track, measure, and learn from the project and ultimately monitor the long-term performance of water, sanitation, and hygiene services. The desired outcomes need to be realistic for the project's time frame, and key performance indicators should inform how the project is implemented and evaluated. The project needs to attempt to align or integrate with local monitoring systems. Monitoring and managing water, sanitation, and hygiene services are critical for sustainability and should involve local government officials when possible. Select and report indicators that will measure the changes that are the main goal of your project. Recommended water supply indicators include:
  - How many people gain access to basic drinking water services
  - How many people gain access to safely managed drinking water services
  - How many people now have better service quality from an existing basic drinking source or a safely managed water service
- A sustainability plan: Project sponsors should develop this plan with stakeholders to show how the project will continue after the grant funding ends. In addition to the general sustainability requirements listed above, each type of water supply project has specific requirements (outlined below).

Water supply: Wells, boreholes, and groundwater extraction

Grant applications for these projects need to:

- Affirm that a hydrogeological survey has been commissioned and that an assessment of all potentially contaminating land uses for the intended drilling site has been conducted. Use the hydrogeological survey results and those from a pump test to confirm that the volume of groundwater available can likely meet the demand expected by current users (instantaneous yield) and future population growth (sustainable yield). Report consumption per capita per time period in this analysis.
- Identify what entity supplied the hydrogeological survey or will conduct it. These surveys need to be conducted by an expert, such as a hydrologist, geologist, or hydrological engineer. If you can't find a qualified person or local entity, or you lack the data to do a site-specific study, collect and analyze as much data as possible about the regional conditions and topography.
- Report whether ambient water quality meets national standards (or, if there aren't any, World Health Organization guidelines) for drinking water or agricultural use. Once a well or borehole is drilled, take a water sample during the final flushing and have it analyzed for physical, chemical, and microbial contamination. Report the results and how they compare to national standards to your regional grants officer. A payment contingency may be put in place, depending on the results of your hydrogeological survey and water quality testing. Provide plans for treatment if the water quality is likely to be poor, and include any necessary contingency costs for treatment or purification in your proposed budget.
- Explain your plan to rehabilitate or upgrade the existing water infrastructure and increase its structural integrity before you build new infrastructure.
- Include documentation that you've secured formal agreements with landowners or the government about water or land rights.
- Include a letter from the relevant government or regulatory entity expressing its awareness and support of the construction, training, and educational activities that you propose. The letter should also confirm that all the activities align with government initiatives, construction standards, and guidelines.
- Include any systems mapping or technical documentation certified by a local professional (such as a civil or environmental engineer or a hydrologist) who helped design the system.
- Explain whether the water supply and services will be accessible on the premises of a household, school, or health care facility. If not, specify the proportion of the target population that will have access within a 30-minute round trip and the proportion who'll need a round trip of more than 30 minutes.
- Describe how the availability of water services will be improved for the target population.
- Provide an operation and maintenance plan that identifies the person or entity responsible for carrying it out. The plan should specify individual contractors or organizations that can provide more advanced technical support when needed.

- Provide a financial sustainability plan with projections for one, five, and 10 years beyond the end of the project cycle. Refer to the guidelines above about financial planning for more detail.
- Informally assess the risks the project may have on the environment, using the environmental assessment section of the Global Grants Community Assessment Results form. Consider:
    - To what extent the land, ecosystem, or water quality may be harmed
    - What are the greatest current threats to the community's air, soil, and water quality, as well as to its ecosystem and biodiversity

Water supply: Gravity-fed systems, piped-water systems, and reservoir tanks

Grant applications for these projects need to:

- Demonstrate that a professional hydrologist, civil or environmental engineer has reviewed the drainage basin and established whether the sustainable yield will meet the current and projected demand.
- Identify the principal water sources, assess water quality, and confirm that national drinking water standards have been met.
- Include documentation that formal agreements about water or land rights have been secured with landowners or the government, particularly where water will be extracted, infrastructure will be constructed, or pipes will be installed.
- Include detailed schematics and technical documentation (such as system size, tank capacity, and energy sources), prepared by a qualified civil or environmental engineer, that will allow an independent review of the proposed system.
- Explain whether the water supply and services will be accessible on the premises of a household, school, or health care facility. If not, specify the proportion of the target population that will have access within a 30-minute round trip and the proportion who'll need a round trip of more than 30 minutes.
- Describe how the availability of water services will be improved for the target population.
- Provide an operation and maintenance plan that identifies the person or entity responsible for carrying it out. The plan should specify individual contractors or organizations that can provide more advanced technical support when needed.
- Provide a financial sustainability plan with projections for one, five, and 10 years beyond the end of the project cycle. Refer to the guidelines above about financial planning for more detail.
- Informally assess the risks the project may have on the environment, using the environmental assessment section of the Global Grants Community Assessment Results form. Consider:
    - To what extent the land, ecosystem, or water quality may be harmed
    - What are the greatest current threats to the community's air, soil, and water quality, as well as to its ecosystem and biodiversity

Water supply: Rainwater harvesting

Rainwater harvesting is the process of collecting and storing rainwater for human use from rooftops, land surfaces, or rock catchments. This water can then be used for drinking, agriculture, flood control, and as a secondary supply during dry spells, emergencies, or a breakdown of the conventional supply system. Whether you're planning a small, medium, or large harvesting system, you need to carefully consider factors such as cost, climate, technology use, hydrology, social attitudes, and perceptions.

Grant applications for these projects need to:

- Define the catchment area, summarize rainfall data, and calculate the runoff coefficient to quantify and provide the available rainwater supply (in cubic meters per year) that your proposed system will collect. Estimate the average water demand from households, institutions, and agriculture (in cubic meters per year) and take dry seasonal periods into account. Use this information to confirm that the proposed system (including the size of storage tanks) can meet the demand (liters per month) and local conditions.
- Confirm that all systems will be constructed with locally available materials.
- Include any schematics or technical documentation that will help us review your application.
- Describe how the system's design will ensure the safety of water being collected and stored if it's for domestic use. If the water quality is compromised because of collection errors or improper storage, describe how the system can adapt to treat or filter the water.
- Describe how your proposed intervention may benefit the environment, such as replenishing groundwater or surface water supplies or restoring vegetative cover to reduce erosion. Explain how the change you expect will be measured.
- Explain how the improved water supply will be easily accessible to the target population (households, schools, health care facilities, farmers).
- Describe whether water supplies will be available when needed for the target population.
- Provide an operation and maintenance plan that identifies the person or entity responsible for carrying it out. The plan should specify individual contractors or organizations that can provide more advanced technical support when needed.
- Informally assess the risks the project may have on the environment, using the environmental assessment section of the Global Grants Community Assessment Results form. Consider:
    - To what extent the land, ecosystem, or water quality may be harmed
    - What are the greatest threats to the community's air, soil, and water quality, as well as to its ecosystem and biodiversity
- In addition to these standards, include information based on the size of the system that you're proposing:
    - Small or medium-sized systems (rooftop collection for drinking water, runoff gardening, rock catchments, check dams)

- Describe the system you plan to construct and the type of materials you'll use. Describe whether local materials or topographical features will be incorporated into the design.
- For rooftop collection, confirm the cleanliness and condition of catchment surfaces. Basic roof repairs for household rainwater harvesting systems are permitted if they're related to improving the system.
- For check dams, provide an operation and maintenance plan that includes regular inspections of its structural integrity and the removal of accumulated sediment. Identify the entity or people responsible for carrying out the operation and maintenance plan.
- Identify the person or organization that provided the professional expertise used to design and supervise the construction of the rainwater harvesting system.

○ Large systems (dams, bunds, diversion structures, and reservoirs)

- Affirm that a basic environmental assessment has been conducted for small and medium-scale dams (large-scale dams are not supported through global grants).
- Provide schematics of the dam placement in the targeted catchment. Confirm that the dam size does not exceed 6 feet or 5-acre-feet of storage.
- Confirm that a licensed civil or environmental engineer has reviewed all the designs and will supervise construction.
- Include the necessary legal agreements for the right to access surface water, alter landscapes, and build on public or private lands.
- Include letters of endorsement or support for the construction, training, and hygiene promotion activities from relevant government authorities (such as a municipal officer, environment minister, or water and sanitation minister). This letter should confirm that the proposed activities align with national water and sanitation standards or water resource management guidelines and affirm their financial and in-kind commitment to the services provided.

Water treatment or purification

All water supply projects supported by The Rotary Foundation need to aim to improve access to, the availability of, and the quantity of water that meets national or international standards. Improved water supplies need to be free of fecal, arsenic, and fluoride contamination. Refer to national water quality guidelines to determine if additional contaminants need to be assessed. Chlorination, solar disinfection, membrane filtration, and ceramic and sand filtration systems are popular methods to remove fecal and chemical contamination.

Work with community stakeholders to consider these factors when you're selecting technology for water treatment or purification: the type of contamination at the water source, field efficacy, the cost of operating, maintaining, and repairing the technology, what users prefer, energy needs and availability, and the availability of quality supply chains in local markets. Stakeholders also need to decide whether the

water supplies should be treated or filtered at a central location, at the point of use (such as a community source, a household connection, a school, or a clinic), or at both.

When used and maintained correctly, water filtration and treatment systems can make most water supplies safe to drink. But because contamination can occur along distribution lines, at a collection point, or if water is stored in unclean or uncovered containers, it's imperative that hygiene promotion and user training include how to sanitize and protect all points of contact (such as springs, storage tanks, containers, and pipes).

For your project to be eligible, you need to provide:

- A community assessment: In addition to meeting the more general guidelines above, for a water treatment or purification project, you should aim to:
    - Describe the primary water sources that the community uses and summarize water quality data in comparison to national standards or guidelines. Where national standards or guidelines don't exist, refer to the World Health Organization guidelines.
    - Use water quality data to explain why you're proposing a specific technology or intervention. Ideally, you should have water sources tested for biological and chemical contaminants at a certified laboratory. If testing resources and access to a certified laboratory are limited, use environmental data such as land use, geology, industrial, and agricultural activity in the region to determine the likelihood of E. coli or chemical contamination.
    - Gather information about user preferences for water treatment methods, technology, odor, and taste to guide your planning and design. Assess the population density and whether the target population is stationary or transitory to determine whether community or household treatment and filtration is appropriate.
    - Identify primary and secondary water sources and water quality.
    - Understand and summarize the principal water uses for each community. Consider and include factors that may influence the water quantity (such as seasonal variations) and quality (such as farming or mining discharges, poor water storage practices, or open defecation).
    - Include a root cause analysis in your assessment for any water supply projects that aim to improve service levels and repair water, sanitation, and hygiene systems. Ineffective local policies, poor management practices, insufficient financing, and a lack of capacity are common factors that lead to inadequate water, sanitation, and hygiene services.
    - Identify the specific impact of an inadequate water supply and water of inadequate quality on public health. Corroborate this with evidence from the local community, where possible.
    - Identify the knowledge, attitudes, behaviors, and practices that may present barriers to the successful adoption and use of a safely managed water supply. Understanding the underlying causes of behavior is necessary in order to develop effective behavior change interventions.
- A description of the energy source that will power the system (such as an electrical grid, solar

panels, diesel engines, or pumps). Verify that the community can afford to pay for the energy source you selected. For reverse osmosis systems, explain whether the energy source will consistently provide enough power and pressure for the system to perform effectively.

- A monitoring and evaluation plan: This is the specific plan to track, measure, and learn from the project and ultimately assess the long-term performance of the water, sanitation, and hygiene services. The desired outcomes need to be realistic for the project's time frame, and key performance indicators should inform how the project is implemented and evaluated. The project needs to attempt to align or integrate with local monitoring systems and indicators. Monitoring and managing water, sanitation, and hygiene services are critical for sustainability and should engage local or regional government officials when possible. Select and report indicators that will measure the changes that are the main goal of your project. Water quality should be periodically monitored from piped water systems and point-of-use sources (such as hand pumps, dug wells, and protected springs) and compared to national standards for microbial (such as E. coli and total coliform) and priority chemical contaminants (such as arsenic, fluoride, nitrates, or nitrites).
- A sustainability plan: Project sponsors should develop this plan with stakeholders to show how the project will continue after the grant funding ends. In addition to the general sustainability requirements listed above, grant applications for these projects need to:
    - Show that you aren't introducing technology that has been selected or determined in advance by Rotary members or a vendor.
    - List the factors that you considered when you selected a technology or intervention to best address the contamination risk identified at the source and explain the economic and social context in the community. Explain why if you chose a household water supply rather than a community supply.
    - Describe how you have worked with public health, environmental, and engineering professionals to create a monitoring plan for water quality testing that fits the economic and environmental conditions of the community. Make a strong effort to integrate the water quality testing with existing monitoring systems.
    - Show a plan to use materials and technology that are available and affordable locally and are appropriate for the community. If you need to bring in materials or technology, explain how local users will easily access affordable parts and replacements without depending on Rotary members.
    - Include any technical documentation, systems mapping, or schematics that will help us review your application.
    - Describe your plan to provide safe water storage, whether that's in community or household cisterns or individual containers.
    - Describe your planned campaign to promote knowledge and new attitudes, perceptions, and practices that perpetuate healthy habits related to the new water and sanitation services. Any technology or infrastructure that's being introduced through the project should be integrated into hygiene promotion activities.
    - Show that testing has been conducted and the water meets the national quality standards for

drinking water. Describe how future testing will be financed and conducted, noting whose responsibility it will be.

- An operation and maintenance plan that identifies the person or entity responsible for carrying it out. All projects need to provide training (including refresher training) in operating and maintaining the system. The plan should specify individual contractors or organizations that can provide more advanced technical support.
- A financial sustainability plan with projections for one, five, and 10 years beyond the end of the project cycle. Refer to guidelines above about financial planning for more detail.

Water treatment or purification resources:

- Guidelines for Drinking-Water Quality from the WHO
- Household Water Treatment and Safe Storage guidelines from the Centre for Affordable Water and Sanitation Technology
- Guidelines to Planning Sustainable Water Projects and Selecting Appropriate Technologies from the Water, Sanitation, and Hygiene Rotary Action Group
- Water technology portal from Akvopedia

Water resource management and watershed management

Water resources that are protected and effectively managed improve the sustainability of water, sanitation, and hygiene services. We encourage you to integrate water resource management activities into any project design that aims to protect water quality and replenish water quantity. Strategic interventions include recharging groundwater, reforesting watersheds, controlling erosion near waterways, improving drainage, developing infrastructure, mitigating flooding, and protecting springs.

The watershed approach is a coordinated framework that focuses public and private-sector efforts to address the highest-priority problems within a hydrologically defined geographic area, taking into consideration both ground and surface water flow. This approach requires high levels of participation from multiple stakeholder groups, representing regulation agencies, landowners, water users, farmers, industry, and watershed managers.

Because these projects are complex, you should work with a licensed environmental engineer, hydrologist, or water resource manager to design your project. And because many of these projects are large scale and require a substantial financial investment, you should consider designing this kind of project as part of a larger initiative led by a government agency or multiple organizations.

Water resource management and watershed management are interdisciplinary approaches that aim to improve public health and environmental and economic outcomes. These projects should therefore be

classified under both the water, sanitation, and hygiene as well as the environment areas of focus.

For your project to be eligible, you need to provide:

- The community assessment: In addition to meeting the more general guidelines above, for a water resource or watershed management assessment, you should aim to:
    - Identify the drainage basin boundary and major streams, lakes, and reservoirs that serve as water sources. For groundwater systems, the source water protection area is the zone of recharge around a well, determined via hydraulic gradients, analytical modeling, or hydrogeological mapping.
    - Evaluate water quality conditions by comparing the available data on physical, chemical, and biological parameters to the water quality objectives for source protection. Identify any existing and potential contaminant sources that could affect the water quality.
    - Provide pertinent information on a watershed's natural characteristics (hydrology, topography, soils, vegetative cover, erosion potential, wetland and riparian areas, etc.) that affect the water quality and quantity.
    - Describe how the land is being used and who owns the land within a drainage basin.
    - Identify the primary local regulatory agency for water resource management and its main water resource management initiatives.
    - Identify whether a watershed management committee exists and whether they are highly engaged in making decisions and communicating with water and land users.
    - Describe the competing demands for water use within a drainage basin, such as water supply, agriculture, recreation, and protection of aquatic life.
    - Describe the current economic and social conditions of all communities that depend on the water and land resources available within the watershed boundaries.
- A monitoring and evaluation plan: This is the specific plan to track, measure, and learn from the project and ultimately assess the long-term performance of the water, sanitation, and hygiene services and the environmental outcomes. The desired outcomes need to be realistic for the project's time frame, and key performance indicators should inform how the project is implemented and evaluated. The project needs to attempt to align or integrate with local monitoring systems. Monitoring and managing these services are critical for sustainability and should engage local government officials when possible. Select and report indicators that will measure the changes that are the main goal of your project. Water resource and watershed management indicators should always measure biophysical changes in water quality and water yield. Recommended water resource and watershed management indicators include:
    - The change in the groundwater recharge rate
    - The change in priority water quality parameters in targeted surface waters (such as dissolved oxygen, turbidity, phosphates, E. coli, nitrates, or nitrites)
    - The change in the concentration of nutrient and sediment levels in surface waters

    - How many acres became part of a buffered zone
    - How many residents signed a watershed stewardship pledge
    - How many septic systems were installed
    - The change in daily water withdrawal
- A sustainability plan: Project sponsors should develop this plan with stakeholders to show how the project will continue after the grant funding ends. In addition to the general sustainability requirements listed above, water resource or watershed management projects need to:
    - Share the criteria used to select the watershed where the proposed interventions will take place. Some factors may be: the intensity of the problem, the prospects for correcting it, the potential for overall development, the availability of technology and infrastructure, and how likely residents are to accept and take part in the project.
    - Identify the main water quality, water supply, and source water protection objectives that the project will address.
    - Describe the change you expect to happen because of the specific activities you propose. Describe the structural and nonstructural interventions you're proposing and how they align with the broader watershed management initiatives of the current governing authority.
    - Provide a topographical map that outlines the boundaries of the drainage basin where the project will be implemented. The map should highlight the critical areas where the proposed interventions will take place and the major water sources.
    - Provide an estimate of both the average and peak demand (in liters per day) that the project is expected to supply at each intervention location for the next five years.
    - Specify the improvement in yield or water quality that you expect to achieve for each targeted water source.
    - Verify that you have the necessary permits if you plan to divert or withdraw water from a specified source.
    - Describe how reforestation activities align with watershed management plans (if applicable).
    - Describe how a watershed management committee will be established, the stakeholders that will be represented, and the roles and responsibilities. Describe what opportunities on the management team will emphasize the role of women.
- A training and education plan for the community that encourages changes in individual behavior (such as water conservation and land use practices, waste disposal, improved sanitation, or reduction of the use of pesticides or chemicals) that will ensure sustainability and help to achieve overall watershed goals.
- Documentation that outlines the roles, responsibilities, and resources committed by leading government agencies and organizations that will be working with us.
- An operation and maintenance plan for all proposed structural interventions that identifies the person or entity responsible for implementing them and outlines the maintenance tasks, costs, and schedules.

- A financial sustainability plan with projections for one, five, and 10 years beyond the end of the project cycle. Refer to the guidelines about financial planning for more details.

Wastewater management

The growing demand for water has led wastewater to be increasingly seen as a reliable alternative source — moving from a treatment and disposal model to one of reusing, recycling, and recovering resources. Wastewater can also be a cost-efficient and sustainable source of energy, nutrients, organic matter, and other useful byproducts. The potential benefits of effective wastewater management extend beyond human and environmental health to food and energy security, as well as climate change mitigation.

Wastewater management projects include collecting, treating, and managing:

- Domestic effluent consisting of excreta, urine, and fecal sludge (blackwater), as well as kitchen and bathing wastewater (graywater)
- Water from commercial establishments, including hospitals
- Industrial effluent, including stormwater runoff
- Agricultural, horticultural, and aquaculture effluent

Try to develop wastewater projects that incorporate measures to reduce water use and consumption as well as promoting treatment and management options to reuse or recycle residues.

For your project to be eligible, you need to provide:

- A community assessment: In addition to meeting the more general guidelines above, for a wastewater management assessment, you should aim to:
    - Briefly describe the target community as urban or rural and describe the size and density of the population, the level of economic development, the technical capacity, and the system of governance.
    - Identify the water quality issues that may be caused by improper wastewater management, such as nutrient, microbial, and chemical contamination.
    - Identify the knowledge, attitudes, behaviors, and practices with water that may be contributing to poor water quality or poor water use.
    - Describe whether decentralized or centralized wastewater systems exist in or near the community. If they do, briefly describe how effective they are at containing, emptying and removing, transporting, treating, and reusing or disposing of wastewater.
    - Identify the root causes for why a wastewater management system is lacking or ineffective. Common factors include a failure to plan and install collection networks, the installation of inappropriate systems, ineffective regulation and financing, and a lack of technical knowledge and skills to operate and maintain the system.

- A monitoring and evaluation plan: This is the specific plan to track, measure, and learn from the project and ultimately assess the long-term performance of the water, sanitation, and hygiene services. The desired outcomes need to be realistic for the project's time frame, and key performance indicators should inform how the project is implemented and evaluated. The project needs to attempt to align or integrate with local monitoring systems. Monitoring and managing these services are critical for sustainability and should involve local government officials when possible. Select and report indicators that will measure the changes that are the main goal of your project. A recommended wastewater management indicator is liters of wastewater safely treated.
- A sustainability plan: Project sponsors should develop this plan with stakeholders to show how the project will continue after the grant funding ends. In addition to the general sustainability requirements listed above, wastewater management projects need to:
    - Describe the changes that you expect as a result of the interventions you're proposing.
    - Describe the wastewater management approach and technology that will be introduced, which you identified through the community assessment. Note whether the system will be centralized (sewers) or decentralized (on-site treatment), based on the local environment (temperature, rainfall) and the community's socioeconomic status, technical capacity, and resources (human, financial, materials).
    - Describe the wastewater treatment strategy and technology that you'll use and the specific results you expect. Confirm whether the outputs of the treatment strategy align with national wastewater treatment standards (if those standards are available).
    - Describe whether new or improved wastewater management systems align with local wastewater management plans and guidelines, if those are available.
    - Describe whether new community water conservation or environmental health education programs will be implemented or whether existing programs will be strengthened or improved. Explain what knowledge people in the specified community will gain and which attitudes and behaviors will change due to the training and education programs. Be sure to describe how the new knowledge, attitudes, and behaviors will be sustained.
    - Describe how the project will strengthen the technical capacity of the community to monitor, operate, and maintain the wastewater system.
    - Explain how greywater and blackwater will be kept separate, and how each will be controlled at the source.
- An operation and maintenance plan for all proposed structural interventions that identifies the person or entity responsible for implementing them and that outlines the maintenance tasks, costs, and schedules.
- A financial sustainability plan with projections for one, five, and 10 years beyond the end of the project cycle. Refer to the guidelines above about financial planning for more details.
- An informal assessment of the risks the project may have on the environment, using the environmental assessment section of the Global Grants Community Assessment Results form. Consider:

- To what extent the land, ecosystem, or water quality may be harmed
- What are the greatest current threats to the community's air, soil, and water quality, as well as to its ecosystem and biodiversity

Irrigation

It's important to assess many environmental and socioeconomic effects if you're considering using existing freshwater supplies to increase or maximize the productivity of land. At a catchment or subcatchment level, you need to consider how to conserve water for other uses by minimizing evaporation and transpiration as well as unrecoverable losses to salty groundwater, contaminated water bodies, or saline seas.

Whether you're repairing or rehabilitating an existing system or developing a new system, consider the hydrogeology of the catchment or subcatchment and take into account the rainfall, critical growth stages of local crops, soil fertility, location, and weather.

Global climate change may affect temperatures, annual precipitation levels, and regional rainfall distribution patterns — all of which can change the current patterns of irrigation demand. Farmers may face greater climatic variability, which can affect water demand and the growing seasons for crops — all of which you should consider in your proposals.

The socioeconomic effects of an irrigation project rely on the establishment of sound governance and financial planning. Your proposal should demonstrate how the project operation will be able to fund its own routine repairs. Local and regional governments need to be committed to providing financing and assistance for emergencies or catastrophic repairs.

For your project to be eligible, you need to include:

- The community assessment: In addition to meeting the more general guidelines above, for an irrigation assessment, you should aim to:
  - Describe the existing water source (availability, accessibility, and quality), the condition of any irrigation infrastructure, and irrigation practices.
  - Quantify how many hectares are expected to benefit from improved irrigation.
  - Assess the average monthly water demand for irrigation alongside other water demands (such as for drinking, sanitation, laundry, and animal husbandry) if the water source for the project will be shared. Compare these calculations to an assessment of the availability, accessibility, and quality of local water sources being considered for this project.
  - Describe the existing land use, habitat, and ecology in the catchment area or the land areas that will be served by the proposed irrigation system.

- Summarize the baseline income or harvest data that you've obtained. Describe the change you expect as a result of the improved irrigation.
- Assess the knowledge and practices of local farmers about operating, maintaining, and repairing small-scale irrigation systems and practicing water conservation.

- A monitoring and evaluation plan: This is the specific plan to track, measure, and learn from the project and ultimately assess the long-term performance of the water, sanitation, and hygiene services. The desired outcomes need to be realistic for the project's time frame, and key performance indicators should inform how the project is implemented and evaluated. The project needs to attempt to align or integrate with local monitoring systems. Monitoring and managing these services are critical for sustainability and should involve local government officials when possible. Select and report indicators that will measure the changes that are the main goal of your project. Recommended irrigation indicators include:
  - How many irrigation systems were installed or improved
  - How many liters of water were conserved annually because of water-conservation irrigation practices
  - The output per unit irrigation supply
- A sustainability plan: Project sponsors should develop this plan with stakeholders to show how the project will continue after the grant funding ends. In addition to the general sustainability requirements listed above, irrigation projects need to:
  - Provide technical information about the irrigation system being proposed and explain why it's the best solution for the community's needs, culture, farming practices, and socioeconomic conditions.
  - Obtain an agreement from farmers that they're committed to participating in the construction, operation, and maintenance of the irrigation system, as well as in all training and education associated with the project.
  - Describe how the project intends to train and educate farmers about irrigation technologies, farming methods, and water conservation practices. Present your training plan, which should specify who will provide the training and to whom, the methods used to build capacity and more effective practices, and the frequency and duration of the training. Be sure to include how the skills will be reinforced and supported over time.
  - Describe the technical training that will be provided to farmers, farm workers, and those responsible for operating, maintaining, and repairing the irrigation system. Technical training should be practical and reinforced over time.
  - Describe the management committee or cooperative of farmers that will be responsible for operating, maintaining, and repairing the proposed irrigation system; determining fees for access and for using the water supply for production; and resolving water-related disputes. Share any documents outlining the composition, roles, and responsibilities of the committee, as well as any memorandums of understanding between water users, land owners, etc.
  - Include a root cause analysis for any irrigation projects that aim to improve service levels or

repair an existing system. Ineffective local policies, poor management practices, insufficient financing, and a lack of capacity are common factors that lead to poorly functioning irrigation systems.

- A description of how the proposed irrigation plan took into consideration the farmers' Indigenous knowledge, traditional experience, and capacity.
- A description of how you'll measure the economic success of farmers and their agricultural outcomes that are due to the irrigation project.
- Systems mapping and technical documentation that demonstrates the assessments you've completed, which will help us review your application.
- An informal assessment of the risks the project may have on the environment, using the environmental assessment section of the Global Grants Community Assessment Results form. Consider:
    - To what extent the land, ecosystem, or water quality may be harmed
    - What are the greatest current threats to the community's air, soil, and water quality, as well as to its ecosystem and biodiversity
- An operation and maintenance plan for all proposed structural interventions that identifies the person or entity responsible for implementing them and outlines maintenance tasks, costs, and schedules.
- A financial sustainability plan with projections for one, five, and 10 years beyond the end of the project cycle. Refer to the guidelines above about financial planning for more details.

WASH in Schools

Rotary's WASH in Schools guide provides tips, checklists, and step-by-step instructions on how to design, carry out, and evaluate sustainable WASH in Schools projects and advocate for lasting change.

Avoid projects that focus on distributing a single piece of infrastructure or technology to a large number of schools, because these projects are unlikely to be sustained. Instead, improve water, sanitation, and hygiene service levels in a smaller number of schools and make the environment more supportive. This includes activating school management committees and providing them with skills and knowledge about how to manage water, sanitation, and hygiene systems, train teachers, secure reliable financing, improve government engagement, and contribute data to local monitoring systems.

For your project to be eligible, you need to provide:

- The community assessment: In addition to meeting the more general guidelines above, for a WASH in Schools assessment, you should aim to:
    - Identify and describe the leading governing agencies responsible for WASH in Schools (such as the District Education Office and the Ministry of Education) and their assess their level of

engagement with the school. Briefly describe the national standards that exist for water, sanitation, and hygiene infrastructure, management committees, and hygiene curriculum and training in schools.

  - Describe each school's management or staffing arrangements. Does a school management committee exist? Is it functional? Is the committee made up of teachers, students, parents, a headmaster, etc.?
  - Quantify the number of female students, male students, and staff members. Assess whether national standards for water (liters per student), sanitation (such as one toilet plus one urinal per 50 boys and one toilet per 25 girls) and hygiene (such as readily accessible hand washing stations with soap) are being met and note what improvements could be made.
  - Estimate the distance to the nearest improved water source, and characterize the access, availability, and quality of it.
  - Summarize the condition of all the water and sanitation infrastructure already in the school, noting whether each piece is functional. Include a root cause analysis for any WASH in Schools projects that aim to improve service levels and repair water, sanitation, and hygiene systems. Ineffective local policies, poor management practices, poor monitoring, insufficient financing, and a lack of capacity are common factors that lead to inadequate water, sanitation, and hygiene services in schools. Explain how your project will address these factors to maintain the service levels and the functioning system.
  - Consult with teachers to understand what training and resources they need to implement the current hygiene curriculum and help develop healthy behaviors among students.
  - Assess what menstrual hygiene management needs exist in the school environment. Refer to the menstrual hygiene management in schools guidelines for details.
  - Describe the socioeconomic status of the school, whether it is public or private, and whether schools have a separate entry in their operations budget for water, sanitation, and hygiene operations and maintenance.

- A monitoring and evaluation plan: This is the specific plan to track, measure, and learn from the project and ultimately assess the long-term performance of WASH in Schools services. The desired outcomes need to be realistic for the project's time frame, and key performance indicators should inform how the project is implemented and evaluated. The project needs to attempt to align or integrate with local monitoring systems. Monitoring and managing these services are critical for sustainability and should involve local government education officials when possible. Select and report indicators that will measure the changes that are the main goal of your project. Recommended WASH in Schools indicators include:
  - How many schools gained access to a basic drinking water service
  - How many schools gained access to a safely managed drinking water service
  - How many schools gained access to a basic sanitation service
  - How many schools gained access to a safely managed sanitation service
  - How many basic sanitation facilities were provided in schools

- How many school management committees were trained and became functional

- A sustainability plan: Project sponsors should develop this plan with stakeholders to show how the project will continue after the grant funding ends. In addition to the general sustainability requirements listed above, these projects need to:
  - Include a list of the schools you'll be collaborating with and the number of students per school.
  - Specify the criteria you used to prioritize and select schools, such as their proximity to a sponsor club, schools with the greatest needs in the school district, demonstrated strong leadership, etc.
  - Describe the measurable change you expect in terms of water, sanitation, and hygiene services and behavior change in the school. Describe the activities that will be implemented to create that change.
  - Ensure that in the completed project, the number of toilets and water supply per student in each school at least meets national standards and guidelines. If no national standards are defined, use the international standards:
    - One toilet per 25 girls, including provisions for students with disabilities
    - One toilet for female staff members
    - One toilet for male staff members
    - One toilet plus one urinal per 50 boys, including provisions for students with disabilities
    - A safe water supply and readily accessible hand washing stations with soap (or ash if soap isn't available)
  - Describe your plan to strengthen the hygiene curriculum and its implementation in the classroom for current and future students. This usually means training teachers and administrators about how to incorporate hygiene education and behavior change programs into their curriculum and the environmental changes needed to promote healthy behaviors (such as posters, supervised hand washing, or school health clubs). Describe how often the hygiene curriculum will be taught to students and what activities will be included daily to encourage the development of healthy habits.
  - Submit a letter from the Ministry of Education (or an equivalent local governing authority) expressing its awareness and support for the construction, training, and educational activities you proposed. The letter should also state that all activities align with government initiatives, standards, and guidelines. Obtain documentation when financial, monitoring, or technical support is committed to the project now and in the future.
- An operation and maintenance plan for all proposed structural interventions that identifies the person or entity responsible for implementing them and outlines maintenance tasks, costs, and schedules.
- A financial sustainability plan with projections for one, five, and 10 years beyond the end of the project cycle. Refer to the guidelines above about financial planning for more details.

- An informal assessment of the risks the proposed project may have on the environment, using the environmental assessment section of the Global Grants Community Assessment Results form. Consider:
    - To what extent the land, ecosystem, or water quality may be harmed
    - What are the greatest current threats to the community's air, soil, and water quality, as well as to its ecosystem and biodiversity

WASH in Schools resources:

- Rotary WASH in Schools Target Challenge Framework
- UNICEF's Country Profiles for WASH in Schools
- Water, Sanitation and Hygiene Standards for Schools in Low-cost Settings from WHO

Sanitation

About 2 billion people globally lack basic sanitation facilities, and of these, 673 million still defecate in the open, according to the World Health Organization. Poor sanitation is linked to the transmission of diseases such as cholera, diarrhea, dysentery, hepatitis A, typhoid and polio. Inadequate sanitary conditions can also affect people's dignity and well-being (particularly for women and girls), as well as a community's environmental, social, and economic development.

Projects organized by Rotary members are often aimed at supporting UN Sustainable Development Goal targets 6.2.1 and 1.4.1, working with communities, institutions, and governments to provide universal and equitable access to basic and safely managed sanitation services.

Improved sanitation facilities hygienically keep feces separate from human contact and include flush or pour flush toilets connected to piped sewer systems, septic tanks, or pit latrines; pit latrines with slabs; and composting toilets. A sanitation facility is considered safely managed if it isn't shared with other households and feces are treated and disposed of on-site, stored temporarily before being treated off-site, or transported through a sewer with wastewater and treated off-site. People using sanitation facilities where feces aren't safely managed are considered to have basic sanitation service, if they don't share the facility with other households. Rotary supports global grant projects that aim to end open defecation and provide or improve sanitation services to the basic and safely managed levels.

For your project to be eligible, you need to provide:

- A community assessment: In addition to meeting the more general guidelines above, for a sanitation assessment, you should aim to:
    - Gather available local, district, and national monitoring data to gain a broad understanding of the regional sanitation situation. Identify the principal governing entity that supports public

sanitation services.

  - Briefly describe the target community as urban or rural and describe the size and density of the population, the level of economic development, the technical capacity in water and sanitation, and the governance systems in place for water, sanitation, and hygiene.
  - Identify the existing water, sanitation, and hygiene infrastructure and whether it works. Specify the type of sanitation facilities that are available in each household and whether hand washing facilities are easily accessible with soap or a soap substitute.
  - Identify the community's primary water source and whether it's used for the sanitation system.
  - Describe the specific environmental and public health effects that may be caused by the inadequate collection, disposal, management, and treatment of feces, such as nutrient, microbial, and chemical contamination. Corroborate this with evidence, when possible.
  - Identify the knowledge, attitudes, behaviors, and practices that may be contributing to the poor use of sanitation facilities or open defecation. Understanding the underlying causes of behavior is necessary in order to develop effective behavior change interventions.
  - Describe whether decentralized (septic tanks) or centralized (sewer) fecal sludge systems exist in or near the community. If they do, briefly describe how effective they are at containing, removing, transporting, treating, reusing, or disposing of waste.
  - Identify the root causes for why a sanitation system is lacking or ineffective. Common factors include a failure to plan and install collection networks, the installation of inappropriate systems, ineffective regulation and financing, and a lack of technical knowledge and skills to operate and maintain the system.

- A monitoring and evaluation plan: This is the specific plan to track, measure, and learn from the project and ultimately assess the long-term performance of the water, sanitation, and hygiene services. The desired outcomes need to be realistic for the project's time frame, and key performance indicators should inform how the project is implemented and evaluated. The project needs to attempt to align or integrate with local monitoring systems. Monitoring and managing these services are critical for sustainability and should involve local government officials when possible. Select and report indicators that will measure the changes that are the main goal of your project. Recommended sanitation indicators include:
  - How many people have improved access to basic sanitation services
  - How many people have improved access to safely managed sanitation services
  - How many communities have been verified as free from open defecation
  - How many people received improved sanitation service quality from an existing limited or basic service
  - How much new funding has been directed to the sanitation sector as a result of Rotary assistance
- A sustainability plan: Project sponsors should develop this plan with stakeholders to show how

the project will continue after the grant funding ends. In addition to the general sustainability requirements listed above, sanitation projects need to:

- Explain how the project design will address the underlying causes of the problem you identified. This is critical to increase the likelihood of sustainability.
- Include a technical description of the sanitation system that you'll be building, improving, or extending. We strongly encourage you to submit schematics, specifications, mapping, and relevant technical documentation to supplement your description.
- Identify the sanitation system (toilet type, waste collection, treatment, reuse and disposal) that you'll be building or improving and the service level you'll achieve (basic or safely managed). Describe how this system is the best fit for the community, based on local socioeconomic and cultural conditions, the availability of supplies, and user preferences.
- Describe the hand washing facilities that you'll install with the latrines and how water and soap (or a soap substitute) will be continuously available.
- Confirm that latrines and any untreated waste disposal site will be located at least 30 meters from open water channels, wells or boreholes, or any source of drinking water.
- Include a plan for hygiene promotion and behavior change programs. Use what you learned from the community assessment about the causes of people's behavior to set specific behavior change objectives. Identify the practices you want to change, what causes them, and the methods you'll use (messages, products, activities). Align this plan with existing behavior change programs and coordinate with the local water and sanitation authority. Note that:
  - For household sanitation projects, you should focus the behavior change programs on all households that are constructing or receiving their own latrine. Use and train community health promotors when possible. Frequently engage with these households over time to reinforce the knowledge people gained and the new behavior they've adopted.
  - For public toilet projects, you should consider targeting the behavior change programs to adjacent communities and business owners who are likely to use the facilities. Public hygiene promotion campaigns can be effective if they align with the campaigns and methods of the local public health authority.
- Include a training plan to introduce or strengthen technical skills in the community (such as by household members or a basic community technician) or that helps the local water and sanitation authority operate, maintain, and repair the sanitation system. Note that:
  - For household sanitation projects, you should aim to train a community-based technician or equip all households with the skills to use, clean, and maintain their toilet.
  - For public toilet projects, you need to identify cleaners and caretakers for the facility and describe how they'll be trained and compensated. Include documentation from the owners of the public toilet system that confirms their commitment to manage and maintain the facility.
- Include a training plan to introduce or strengthen the management system or committee that has authority over the sanitation system you proposed.

    - Describe the plan to manage fecal sludge. Explain how it will be collected, treated, reused, or disposed of through an existing or proposed system. Treatment and disposal options include dealing with it on-site, storing it temporarily before emptying the container and transporting it to be treated off-site, or transporting it through a sewer with wastewater to be treated off-site. If open defecation exists, provide culturally appropriate behavior change programs to minimize or eliminate it.
    - Include a list of energy sources needed for the proposed system to function properly and specify whether the energy is consistently available and affordable.
- An operation and maintenance plan for all proposed structural interventions that identifies the person or entity responsible for their implementation and outlines the maintenance tasks, costs, and schedules.
- A financial sustainability plan that estimates the costs of operating, maintaining, and repairing the infrastructure as well as for consumables such as soap and other cleaning materials, the cleaning itself, the labor involved, the necessary training, and behavior change programs for one, five, and 10 years beyond the end of the project cycle. Compare these costs with estimates for revenue and financing. Base estimates for any revenue collected from households or individuals on what you learned from the community assessment about their willingness and ability to pay.

Sanitation resources:

- Guidelines on Sanitation and Health from WHO
- The FSM Toolbox from the Faecal Sludge Management Alliance
- Fecal Sludge Management Tools from the World Bank

Menstrual hygiene management

Every month, 500 million girls and women are unable to manage their menses in a dignified and healthy way. Gender inequality, discriminatory social norms, cultural taboos, poverty, and a lack of basic services like toilets and sanitary products can all mean that menstrual health and hygiene needs aren't met. This leads to restricted mobility and personal choices, as well as compromised safety. Ultimately, unmet menstrual hygiene needs result in poor school attendance, less ability to work, and less participation in community life.

We support menstrual hygiene projects that strengthen social supports for women and girls, improve their access to and the privacy of facilities and services, improve their access to absorbent materials and other supplies, and increase their confidence, knowledge, and skills. Global grant-funded projects don't support the development and distribution of sanitary napkins alone. That activity would need to be embedded in an initiative that addresses the other components of a comprehensive menstrual hygiene management approach.

Menstrual hygiene management in communities

For your project to be eligible, you need to provide:

- A community assessment: In addition to meeting the more general guidelines above, for a menstrual hygiene assessment in a community, you should aim to:
    - Examine people's access to safely managed water and sanitation services.
    - Evaluate the existing menstrual hygiene policies, guidelines, and advocacy efforts so that you can address the situation appropriately.
    - Determine people's access to menstrual hygiene materials and supplies and their preferences about what to use.
    - Identify the water, sanitation, and hygiene facilities that exist, how available they are, and what people prefer to use.
    - Describe the prevailing knowledge and sources of information about menstruation. Seek a clear understanding of the norms, beliefs, taboos, and local knowledge, directly from girls, boys, men, and women.
    - Describe the health services that exist (such as health posts or community health workers), how available they are, and if they encourage factual and useful knowledge and practices.
- A monitoring and evaluation plan: This is the specific plan to track, measure, and learn from the project and ultimately assess the long-term performance of the services. The desired outcomes need to be realistic for the project's time frame, and key performance indicators should inform how the project is implemented and evaluated. The project needs to attempt to align or integrate with local education monitoring systems. Monitoring and managing these services are critical for sustainability and should involve local government officials when possible. Select and report indicators that will measure the changes that are the main goal of your project. Recommended menstrual hygiene management indicators include:
    - How many people increased their knowledge or improved their attitudes about menstrual hygiene management
    - How many women and girls have improved their menstrual hygiene practices, such as changing pads more regularly, storing pads safely, using hygienic pads, regularly washing themselves during menstruation, or considering menstrual hygiene needs in constructing or improving the household latrine
    - How many women and girls are using affordable and hygienic sanitary pads
    - How many institutional or public sanitation facilities have been designed or modified to consider menstrual hygiene management
    - How many social enterprises have been established that produce and distribute menstrual hygiene products
- A sustainability plan: Project sponsors should develop this plan with stakeholders to show how the project will continue after the grant funding ends. In addition to the general sustainability requirements listed above, menstrual hygiene projects in communities need to:

- Describe how people will learn about menstruation and how misconceptions about menstrual hygiene will be dispelled. Behavior change programs need to be culturally appropriate and based on proven evidence of success. Note the cooperating organizations and local expertise that will contribute to the project's success. Describe the training any community health promotors will receive and how they'll educate men and women in the community.
- Include menstrual hygiene management training for the community that offers:
  - Facts about adolescence, puberty, and menstruation
  - Personal hygiene considerations during menstruation
  - Information about the sanitary napkins and materials that are available, as well as where to purchase them and how to construct them
  - Information about how to manage menstrual pain
  - Information about how to support adolescent girls and women
- Describe whether the project includes improving household water and sanitation facilities and service levels in the community and disposal options for sanitary napkins. Explain how the design of sanitation facilities and handwashing stations accounts for privacy and disposal needs. If the project doesn't include improving water and sanitation facilities and services, describe when they will be improved and by whom, according to the community action plan. If no community action plan exists, we strongly encourage you to support future water, sanitation, and hygiene planning with the community and local government as a part of your menstrual hygiene management project.
- Describe how hygienic and absorbent material will be made available and accessible. Explain what adequate supply chains for disposable and washable materials are in place to provide affordable materials throughout the target communities, including to remote areas. Projects that distribute disposable and reusable pads without a sustainability plan aren't eligible.
- Provide a five-year business plan for any social enterprise being created to make reusable and washable sanitary napkins and materials for home assembly more available and accessible. Detail the major costs, projected sales, and estimated revenue. Find more details about social enterprises in the Guidelines for Community Economic Development Global Grant Funding.
- Describe how your project will sensitize the community and develop family support for menstrual hygiene management. Explain how community support groups will be started to create awareness and provide information. Explain how traditional and community leaders will receive information about menstrual hygiene management to help dispel misconceptions.

- An operation and maintenance plan for all proposed interventions that identifies the person or entity responsible for carrying them out.
- A financial sustainability plan that estimates the costs of operating, maintaining, and repairing any infrastructure, consumables such as materials for pads, the labor involved, and behavior change programs for one, five and 10 years beyond the end of the project cycle. Compare costs with estimates for revenue and financing.

Menstrual hygiene management in schools

Girls can face an unsupportive social and physical environment at school, where the water, sanitation, and hygiene facilities may be insufficient for them to properly manage their menses. A school may not have codes of conduct to protect girls from bullying and teasing. Girls may also lack access to proper menstrual products. In this kind of environment, girls may have difficulty concentrating, stop participating in class, isolate themselves, or become socially excluded. Some may even avoid going to school at all.

Menstrual hygiene management projects in schools should address the challenges to girls' educational experience by creating a learning environment where they feel confident participating in school during their menstrual cycle and can do so while maintaining their dignity.

For your project to be eligible, you need to provide:

- The community assessment: Privacy and sensitivity to cultural norms are paramount when assessing menstrual hygiene in schools. This is why we strongly recommend that you work with a cooperating organization that has expertise in menstrual hygiene management to help you carry out the community assessment and implement the project. An ideal assessment would include details about the water, sanitation, and hygiene facilities, in-depth interviews and focus group discussions with students of all genders, mothers, teachers, and school administrators. Consider using female facilitators for activities that involve girls and women and using male facilitators for activities with men and boys. In addition to meeting the more general guidelines above, for a community assessment for these projects, you should aim to:
    - Evaluate the existing water, sanitation, and hygiene policies, guidelines, and advocacy efforts so that your project can address menstrual hygiene management appropriately. Note whether schools are familiar with implementing and budgeting for these policies. Understand any menstrual hygiene management curriculum being used and whether teachers have received training and resources that meet local education standards.
    - Report on people's access to menstrual hygiene materials and supplies and their preferences about what to use. When you talk with girls and women, ask whether they have access to reusable or disposable sanitary napkins and clean underwear. Collect data about what people prefer to use when possible. Find out if the school is prepared to provide girls with menstrual hygiene materials and supplies in emergencies.
    - Identify the water, sanitation, and hygiene facilities at the school, how available they are, and what people prefer to use. Evaluate the functionality, accessibility, and condition of the facilities to understand if they enable girls to manage menstruation. Determine whether gender-segregated toilet facilities exist and whether they provide adequate lighting and privacy for girls to manage their menses at school (e.g., private access to waste disposal, changing and washing areas, and private hand washing facilities). Ask female students and staff members for input about water and sanitation facility designs and upgrades.
    - Describe the prevailing knowledge and sources of information about menstruation. Seek a clear understanding of the norms, beliefs, taboos, and local knowledge, directly from girls,

boys, teachers, and mothers.

- A monitoring and evaluation plan: This is the specific plan to track, measure, and learn from the project and ultimately assess the long-term performance of the water, sanitation, and hygiene services. The desired outcomes need to be realistic for the project's time frame, and key performance indicators should inform how the project is implemented and evaluated. The project needs to attempt to align or integrate with local or school-based monitoring systems. Monitoring menstrual hygiene management is critical for sustainability and should involve local government education officials and school administrators. Select and report indicators that will measure the changes that are the main goal of your project. Recommended indicators include:
    - How many schools implemented national menstrual hygiene management guidelines
    - How many school facilities were constructed that took into account menstrual hygiene needs, such as the space, security, and privacy to manage those needs, hygienic ways to dispose of used sanitary materials, inclusive accessibility to and in the facility, having water to wash themselves and reusable pads, and hygienic places to store personal items
    - How many people from different groups (e.g., girls, boys, women, men, teachers) had improved their knowledge and attitude about menstrual hygiene management
    - How many women are using affordable and hygienic sanitary pads
    - How much (in percent) did girls' attendance at school during menstruation improve
- A sustainability plan: Project sponsors should develop this plan with stakeholders to show how the project will continue after the grant funding ends. In addition to the general sustainability requirements listed above, menstrual hygiene management projects in schools need to:
    - Secure support or approval for the project from the Ministry of Education, municipal officials, and school administrators. Some countries and institutions may require parental consent for minors to participate in the community assessment and project activities.
    - Describe how people will learn about menstruation and how misconceptions about menstrual hygiene will be dispelled among students and staff at the school. Share the training plan and menstrual hygiene curriculum to provide teachers and any school nurses with the skills, knowledge, and resources to implement the curriculum to girls and boys.
    - Explain design improvements to school water, sanitation, and hygiene facilities and services that have taken menstrual hygiene management needs into account, including privacy and disposal options.
    - Describe how hygienic and absorbent material will be made available and accessible at school, particularly for emergencies. Projects aren't eligible if they distribute disposable and reusable pads alone in schools where the water, sanitation, and hygiene services and the supportive environment don't meet menstrual hygiene needs (e.g., schools with limited water supplies or a lack of basic sanitation).
    - Provide a five-year business plan for any social enterprise being created to make reusable and washable sanitary napkins and materials for home assembly more available and accessible. Detail the major costs, projected sales, and estimated revenue. Find more details about social

enterprises in the guidelines for community economic development projects.

    - Describe how your project will sensitize the community and develop family support for menstrual hygiene management in schools. Explain how community support groups will be started to create awareness and provide information. Explain how traditional and community leaders will receive information about menstrual hygiene management in schools to help dispel misconceptions.

- An operation and maintenance plan for all proposed interventions that identifies the person or entity responsible for carrying them out.
- A financial sustainability plan, created in conjunction with school leaders and district education officials, that estimates the costs of operating, maintaining, and repairing any infrastructure, consumables such as materials for pads, the labor involved, and behavior change programs for one, five, and 10 years beyond the end of the program cycle. Compare costs with estimates for revenue and financing.

Market-based sanitation

(May be eligible under community economic development)

Publicly financed, donated, or heavily subsidized toilets cannot achieve the worldwide goal of providing improved or safe sanitation to all. Market-based sanitation, in which businesses and other private organizations amplify and extend government programs, is a promising approach. It leverages household investments, builds private-sector investments, and increases the capacity to produce and distribute a broader range of improved sanitation products and services. Government assistance, meanwhile, helps sanitation markets function more effectively to serve all people, including low-income households — achieving our goals of sustainability and scale.

You can develop projects that assist with or lead these private-sector and government collaborations, facilitate community-led efforts to stop open defecation, promote household investment, and encourage the local private sector to provide improved sanitation services. Market-based sanitation can increase sanitation coverage and achieve sustainability and scale.

For your project to be eligible, you need to provide:

- The community assessment: In addition to meeting the more general guidelines above, for a market-based sanitation assessment, you should aim to:
    - Present the results of a market assessment, conducted by a business analyst familiar with the local private sector in water, sanitation, and hygiene. Highlight the assets in the current market system to leverage or strengthen sanitation coverage and identify any gaps.
    - Assess and explain the community's business knowledge and skills. It's important to develop small businesses and eventually markets that align with the local culture and practices.

    - Provide a full description of whether local supply chains could support local water and sanitation businesses.
    - Gather information from people who will use the services about what designs they prefer, as well as their willingness and ability to pay for water and sanitation products or services.
- A monitoring and evaluation plan: This is the specific plan to track, measure, and learn from the project and ultimately assess the long-term performance of the water, sanitation, and hygiene services. The desired outcomes need to be realistic for the project's time frame, and key performance indicators should inform how the project is implemented and evaluated. The project needs to attempt to align or integrate with local monitoring systems. Monitoring and managing these services are critical for sustainability and should involve local government officials when possible.
- A sustainability plan: Project sponsors should develop this plan with stakeholders to show how the project will continue after the grant funding ends. In addition to the general sustainability requirements listed above, market-based sanitation projects need to:
    - Help generate new demand through education, promotions, and bulk purchases
    - Conduct market research and reduce the business risk by developing marketing and sales tools to activate latent demand
    - Train workers to develop or expand the local industry for toilet construction
    - Support waste collection and treatment by public or private enterprises, including franchise models
    - Turn solid waste into marketable products such as fuel or fertilizer
    - Link businesses to households that are ready to purchase products and services
    - Build people's skills and provide market intelligence to help businesses respond to new consumer demand
    - Build a network of equipment suppliers to assure quality products and competition in the market, possibly using open-source product designs
    - Monitor the product quality to protect consumers and public health
    - Collaborate with microfinance institutions or community clubs to provide households with revolving loans to install a toilet

Solid-waste management (including reuse, recycling, and recovery)

Cities and other hubs of economic development and population growth generate significant quantities of solid waste, which needs to be managed every day by collecting, transporting, and safely disposing of it. Where waste isn't adequately managed, uncontrolled dumping or burning can lead to water, land, and air pollution, along with the associated risks to people's health and the environment.

A typical municipal solid waste stream will contain inert (construction) waste, organic (food) waste, and

both hazardous and nonhazardous health care and industrial waste. Not separating the different kinds makes it much harder to recover recyclable or reusable materials or to use sustainable disposal methods.

Solid-waste management projects should first seek to prevent material from becoming waste. When waste is created, make the priority preparing it for reuse, then for recycling, then for recovery, and lastly for disposal (such as in a landfill or by incineration). Because of the complexity and the tremendous amount of resources needed to establish a sustainable solid-waste management system, we strongly encourage you to pursue activities that extend, strengthen, or improve existing solid-waste management systems.

For your project to be eligible, you need to provide:

- A community assessment: In addition to meeting the more general guidelines above, for a solid-waste management assessment, you should aim to:
    - Identify the main public entities and agencies responsible for solid-waste management locally. Describe their capacity to support expanding those services.
    - Summarize the relevant policies and processes that exist (or are absent) for solid-waste management services. Developing a strong relationship with local government officials will make it easier to collect this information and understand the system.
    - Summarize the results from site surveys and investigations, checklist-guided interviews, and open-ended discussions with government officials, community members, and waste disposal workers to identify the gaps in the current system.
    - Analyze the equipment, infrastructure, and services currently available for solid-waste management and recycling. Note how many collection facilities or vehicles there are, as well as the availability of working medical waste incinerators, sorting facilities, composting sites, and existing (and planned) final disposal sites.
    - Describe public consumption and disposal habits and practices.
    - Estimate how much solid waste would be generated per person per month.
    - Assess the composition of the solid waste generated, specifying what percentage is organic material, inorganic material, plastics, etc.
    - Report the waste recycling rate of the community (if applicable), calculated as the amount recycled, reused, or returned divided by the amount that's recyclable.
    - Determine whether community member are paying for solid-waste management services and if so, what percentage of the community is paying and how much each household pays.
    - Report any ambient water and environmental quality monitoring data that reflects the impact solid waste has on local water and land resources.
- A monitoring and evaluation plan: This is the specific plan to track, measure, and learn from the project and ultimately assess the long-term performance of the water, sanitation, and hygiene services. The desired outcomes need to be realistic for the project's time frame, and key performance indicators should inform how the project is implemented and evaluated. The project

needs to attempt to align or integrate with local monitoring systems. Monitoring and managing these services are critical for sustainability and should involve local government officials when possible. Select and report indicators that will measure the changes that are the main goal of your project. Recommended indicators include:

  - The percentage of waste collected by community
  - What percentage of households have access to waste collection services
  - How many local composting programs exist and how much they produce
  - The percentage of community who use and pay for collection services
  - The percentage of user income allocated to waste collection
  - The unit cost of the waste collection service
  - The unit cost of operating the disposal site
  - How much solid waste the community generates, calculated as kilograms per person per day
  - The waste recycling rate, calculated as the amount recycled, reused, or returned divided by the amount that's recyclable

- A sustainability plan: Project sponsors should develop this plan with stakeholders to show how the project will continue after the grant funding ends. In addition to the general sustainability requirements listed above, for solid-waste management projects you need to:
  - Describe the measurable change that you expect as a result of your project.
  - Describe the specific activities that global grant funding will support and how they are part of a larger plan to expand and strengthen the local solid-waste management services.
  - Clearly describe how the project will address waste prevention, reuse, or recycling, and how any residual waste will be recovered or disposed of. Include how you expect the project to:
    - Improve the local environment
    - Promote environmentally sound waste disposal practices by mitigating greenhouse gases, minimizing food loss, reducing waste, diverting organic waste, or adopting treatment and disposal technologies that capture biogas and landfill gas
    - Improve people's health and livelihoods by reducing open burning, mitigating the spread of pests and disease, and reducing crime and violence
    - Minimize hazards for workers who are directly exposed to waste material
  - Provide a budget for the first five years of operation and maintenance, clearly identifying the cost of waste storage, collection, treatment and reuse, recycling, or disposal.
  - Include a behavior change plan, including proposals for education, training, and advocacy that specify how the program will be monitored and evaluated in ways that are consistent with local, regional, and national practices.
  - Outline how you plan to explain the benefits of sustainable waste management practices to government organizations, the public, and school-age children.

- Describe in detail what kind of material-specific storage, transport, treatment, distribution, and residue disposal infrastructure you plan to implement.
- Explain how you chose a partner and include any supporting agreements if operating and maintaining the waste management system relies on establishing partnerships with public or private organizations.
- Provide an assessment specifying how you'll manage any identified risk or harm to the environment, workers, or the public.
- Describe any hazardous-waste training that you'll provide to people who participate in cleanup efforts and specify what safety equipment they'll receive.
- Provide a plan to manage each waste type that will be collected, including an estimate of the quantity and a proposed transport and disposal route.
- Describe how your project will strengthen the capacity of institutions by training people and building their skills. The training could include solid-waste management and financing for local or municipal waste managers or technical training for solid-waste workers, such as sorting, safe clean-up practices, collection, and composting.
- Describe the public campaigns and education aimed at users of the services to promote demand, improve the waste disposal and recycling practices, or increase the number of people paying for the services. Public campaigns should be guided by the results of the community assessment and from current or potential users of the services.

- An operation and maintenance plan for all the technology and infrastructure you're proposing.
- A financial sustainability plan, created in conjunction with municipal solid-waste officials, that estimates the costs of operating, maintaining, and repairing any infrastructure, consumables, cleaning, the labor involved, capacity and behavior change programs for one, five, and 10 years beyond the end of the project cycle. Compare costs with estimates for revenue and financing.

Water, sanitation, and hygiene in health care facilities

Data from the World Health Organization and UNICEF show that major global gaps exist in water, sanitation, and hygiene services in health care facilities: 1 in 3 lack necessary supplies for people to clean their hands where care is provided, 1 in 4 have no water services, and 1 in 10 have no sanitation services.

Basic water, sanitation, and hygiene services in health care facilities are essential to provide quality care and ensure that the facilities can meet their primary health commitments. Water, sanitation, and hygiene projects in health care facilities should aim to create a system of continuous improvement with targeted actions. These actions should be integrated into the facility's existing activities, with the goal of reaching health-based targets and meeting national accreditation and standards.

For your project to be eligible, you need to provide:

- A community assessment. In addition to meeting the more general guidelines above, for a water, sanitation, and hygiene in health care facilities assessment, you should aim to:
    - Use the digital Water and Sanitation for Health Facility Improvement Tool from WHO and UNICEF to identify areas for improvement. It helps you assesses the water, sanitation, health care waste, hand hygiene, facility environment, cleanliness and disinfection, and management situation. Assess these conditions with health facility administrators and, when possible, a monitoring officer from the health ministry.
    - Discuss the health care facility's conditions with administrators, care workers, and cleaning staff to explore the causes of poor water, sanitation, and hygiene services, practices, or skills.
    - Prioritize what needs you'll address with the limited project funding available. Offer to help administrators develop a long-term plan to meet the facility's water, sanitation, and hygiene needs. This will improve the project outcomes and make it more likely to be sustainable.
- A monitoring and evaluation plan: This is the specific plan to track, measure, and learn from the project and ultimately assess the long-term performance of the water, sanitation, and hygiene services. The desired outcomes need to be realistic for the project's time frame, and key performance indicators should inform how the project is implemented and evaluated. The project needs to attempt to align or integrate with local monitoring systems. Monitoring and managing these services are critical for sustainability and should involve local government officials when possible. Select and report indicators that will measure the changes that are the main goal of your project.
- A sustainability plan: Project sponsors should develop this plan with stakeholders to show how the project will continue after the grant funding ends. In addition to the general sustainability requirements listed above, water, sanitation, and hygiene in health care facility projects need to:
    - Describe the measurable change that you expect as a result of the project. Specify what activities being implemented will likely lead to the changes you're seeking.
    - Describe the water, sanitation, and hygiene infrastructure improvements that your project will bring about. Specify the technology that will be implemented and justify why what you propose is the best fit for the socioeconomic, cultural, and capacity situation. Consider whether the facilities will be able to afford the operation, maintenance, and repair costs and whether the facilities are willing to allocate funding in their annual budgets for water, sanitation, and hygiene costs. Consider whether the facilities have management teams that are responsible for infection control procedures and water, sanitation, and hygiene services. Address whether the facilities have trained cleaning staff and whether care workers and staff are trained on infection control procedures and the proper use of safe water and sanitation for health care.
    - Describe how stakeholders such as community members, hospital administrators, clinicians, and cleaning and maintenance staff will be involved in making decisions and in management activities after the grant funding ends.
    - Include a training plans that specifies how the skills and knowledge the people acquired will be institutionalized. Training in these projects could be talking with health care workers to

promote water, sanitation, and hygiene practices in delivering care; working with administrators on evaluating the environmental and health risks as a result of poor water, sanitation, and hygiene services; teaching technical support and cleaning staff about monitoring, inspecting, and maintaining the water, sanitation, and hygiene infrastructure; meeting with staff members to promote hand washing at the proper times; and teaching patients and staff about using sanitation facilities.

    - Describe the plan to ensure that consumables, such as soap and cleansing materials, will be available at all times.
    - Describe how the water, sanitation, and hygiene services you propose will be integrated into the facility's planning, budgeting, and programming to deliver quality services, including COVID-19 response and recovery efforts.
    - Describe how waste management practices will be improved according a plan for this purpose. If no waste management plan exists, help administrators develop one as a first step toward improving how waste is managed at the facility.
    - Include a letter from the Ministry of Health (or the appropriate government authority) expressing its awareness and support for the construction, training, and educational activities that you propose. The letter should confirm that all the activities align with government initiatives, standards, and guidelines, and affirm any financial or in-kind commitments.

- An operation and maintenance plan that specifies how systems and services will be monitored after the project cycle is complete, who will be responsible for doing so, and whether that information will be reported to health monitoring systems.
- A financial sustainability plan, in conjunction with facility administrators and district health officials, that estimates the costs of operating, maintaining, and repairing the infrastructure, as well as for consumables, cleaning, labor, training, and behavior change programs for one, five, and 10 years beyond the end of the project cycle. Compare these costs with estimates for revenue and financing.
- An informal assessment of the risks the project may have on the environment, using the environmental assessment section of the Global Grants Community Assessment Results form. Consider:
    - To what extent the land, ecosystem, or water quality will be harmed
    - What are the greatest current threats to the community's air, soil, and water quality, as well as to its ecosystem services and biodiversity

Water, sanitation, and hygiene in health care facilities resource:

- Eight Practical Steps to Achieve Universal Access to Quality Care from WASH in Health Care Facilities

Water, sanitation, and hygiene advocacy

For water, sanitation, and hygiene services to be sustainable, the public and private sector need to work together to mobilize resources and improve coordination among various sectors. Advocacy is a crucial part of that. Advocacy, UNICEF says, is "the deliberate process, based on demonstrated evidence, of directly or indirectly influencing decision makers, stakeholders, and relevant audiences to support and implement actions that contribute to" your cause (UNICEF, 2021). This means Rotary members, with your influential networks and the ability to mobilize resources and convene stakeholders, can have an important role.

Advocacy projects need to have an agenda. A water, sanitation, and hygiene advocacy agenda can guide your entire project or can be embedded in a project that's addressing other water, sanitation, and hygiene needs, such as infrastructure, skills, or behavior. Water, sanitation, and hygiene advocacy involves working with decision-makers and the people who'll use a service to develop a strategy to engage opinion leaders, facilitate community meetings, conduct media campaigns, raise public awareness, and influence the decisions made by political, economic, and social institutions.

Advocacy agendas should be evidence-based — that is, informed by data collected during the community assessment and from the sector. An advocacy agenda needs to have a plan, just as you would create for a project to improve water and sanitation services. The WASH in Healthcare Facilities Advocacy Toolkit will give you the information and tools to develop and implement an effective advocacy strategy.

For your project to be eligible, you need to provide:

- A community assessment: In addition to meeting the more general guidelines above, for a water, sanitation, and hygiene advocacy assessment, you should aim to:
    - Explain what factors cause the community, school, or health care facility to lack safely managed water, sanitation, and hygiene services. In order to change things, we need to understand why they occur. For example, recent data has shown that WASH in Schools is a severe and overlooked problem in Bole, Ghana because of a lack of funding for WASH in Schools infrastructure, operation, maintenance, and training. A better understanding of the problem will help determine the objectives of your efforts.
    - Determine the specific gaps that need to be filled to achieve your goal, and what needs to change in order to address those gaps.
- A monitoring and evaluation plan: For water, sanitation, and hygiene advocacy to continue to be effective, the advocacy plan needs to be adapted periodically. Reflect on your strategy, track measures of progress, and evaluate your successes and failures. Adjust your plan based on that, or decide if you need a new strategy with different messages, new messengers, or a different approach. Share any updates or modifications to your advocacy plan with your regional grants officer. Select and report indicators that will measure the changes that are the main goal of your project. Recommended water, sanitation, and hygiene advocacy indicators include:

- Any government calls to action, resolutions, or new policies on water, sanitation, and hygiene
- The integration of water, sanitation, and hygiene indicators into Health Management Information Systems or School Management Information Systems
- Dedicated funding for water, sanitation, and hygiene operations and maintenance in a school or health care facility budget
- The percent increase in monitoring visits by local government officials to a community water system
- The amount of public discourse with local decision-makers about water, sanitation, and hygiene services
- How many successful outcomes have been achieved because of meetings with decision-makers
- Percent of schools in the area with a facility management plan that adheres to national guidelines

- A sustainability plan: Advocacy activities aim to encourage actions, practices, and policies that are sustained. Project sponsors should develop a plan with stakeholders to show how the actions, practices, and policies that result from advocacy will continue after grant funding ends. Use the advocacy roadmap in the WASH in Healthcare Facilities Advocacy Toolkit to help you design and present a comprehensive advocacy plan. In addition to the general sustainability requirements listed above, a water, sanitation, and hygiene advocacy project needs to:
  - Specify a water, sanitation, and hygiene advocacy goal and objectives. The objectives are the changes or actions that you want from a decision-maker. Design any activities specifically for your advocacy efforts and base them on what you can reasonably accomplish in the short term (one year) and long term (3-5 years).
  - Identify the opportunities, resources, and risks before you start any advocacy activities.
  - Determine what activities you'll use to achieve change and the communication tools (written, oral, visual, digital) that you'll use.
  - Identify your target audience. Understand who you need to reach in order to achieve your goal, and who has the power to make the changes you're seeking. A target audience can be at the community level (e.g., a school administrator), the district level (e.g., a district education officer), or even the national level (e.g., the Ministry of Education).
  - Develop messages that are based on the changes you're seeking and that will be effective in reaching your target audience. An advocacy message typically includes: a statement outlining the issue, evidence, an anecdotal example, the overall goal, and the action you want the target audience to take.
  - Identify the people who'll carry your message to the target audience. This typically is a person who has access to the decision-maker.

Water, sanitation, and hygiene advocacy resources:

- Advocacy tools and guidance from IRC
- WASH in Healthcare Facilities Advocacy Toolkit

WHAT TYPES OF PROJECTS AND ACTIVITIES AREN'T ELIGIBLE FOR GLOBAL GRANT FUNDING?

The Foundation considers these activities to be outside the scope of the water, sanitation, and hygiene area of focus and therefore **not eligible** for global grant funding:

- Projects that solely construct water and sanitation systems
- Projects that consist exclusively of infrastructure, vehicles, or equipment purchases
- Projects that lack activities to strengthen and sustain local capacity, governance, or management systems
- Projects that lack hygiene promotion resulting in *both* increased knowledge and sustained behavior change. One-time education sessions are not eligible.
- Water, sanitation, and hygiene services that aren't likely to be sustained after the grant funding ends
- WASH in Schools projects that benefit only one cohort of students
- Distribution projects for a particular technology or piece of infrastructure across a large number of sites without a sustainability plan
- River, beach, or habitat clean-ups that do not sustainably address the source of waste/pollution or behavioral change

HOW DO I MONITOR AND EVALUATE A PROJECT IN WATER, SANITATION, AND HYGIENE?

Your community assessment, which contains baseline data about the local water, sanitation, and hygiene conditions, will be the foundation of how you measure and evaluate your project.

Define clear and measurable objectives, or the changes you hope for as a result of the project. These objectives should be specific, measurable, achievable, realistic, and time-based (SMART). Some examples of these SMART objectives in water, sanitation, and hygiene are:

- Improve access to sustainable and safely managed drinking water for [a specific number of] people directly in [a specific community name] by [a month and year].
- Improve access to and the use of safely managed sanitation services in [a specific number of] health care facilities in [a specific county name] by [a month and year].
- Improve access to and the use of basic sanitation services in [specific number of] health care facilities in [a specific county name] by [a month and year].
- Improve the groundwater yield for drinking and production in [a specific name of watershed] by [a specific percentage] by [a month and year].

- Strengthen the governance and local management of water, sanitation, and hygiene services in [a specific community name] by [a month and year].
- Increase financing for water, sanitation, and hygiene services in [a specific district name] by [a specific percentage] by [a year].
- Promote the adoption and practice of key hygiene behaviors in [a specific number of] communities by [a year].
- Promote the adoption and implementation of menstrual hygiene management national guidelines in [a specific number of] schools in [a specific district name] by [a month and year].

Working with a cooperating organization that can offer expertise and support, decide on what data you'll collect to track the changes the project is bringing about. Select at least one standard measure per objective to regularly monitor and report that can be compared to baseline data. Include in your measurements only the people or institutions that will directly receive an immediate benefit from the project activities. Describe the data collection plan and who will collect and compile the information.

The data could include:

- How many people gained access to basic drinking water services
- How many people gained access to safely managed drinking water services
- How many people gained access to basic sanitation services
- How many people gained access to safely managed sanitation services
- How many schools or health care facilities gained access to basic drinking water services
- How many schools or health care facilities gained access to safely managed drinking water services
- How many schools or health care facilities gained access to basic sanitation services
- How many schools or health care facilities gained access to safely managed sanitation services
- How many people benefited from the implementation of activities that improved how water resources are managed
- How many households have soap and water at a hand washing station that's commonly used by family members
- How many water and sanitation committees or local government ministries have been strengthened to manage water resources or water, sanitation, and hygiene services
- How many water operators or technical professionals in water, sanitation, and hygiene have been trained
- The percentage of households in the target population that pay for water, sanitation, and hygiene services
- The percentage of schools that have adopted national guidelines for menstrual hygiene

management

- The percent increase in annual budget allocations from local governments for supportive water, sanitation, and hygiene services

Talk with local stakeholders about how to align your monitoring activities with and use existing resources and indicators. We encourage you to use and strengthen existing systems whenever possible in order to strengthen the local commitment to the project and increase sustainability. You can do this by:

- Making local development and monitoring officials aware of your project activities and what support will be needed from them after the project ends
- Aligning your data collection with the methods and resources available from the local authority responsible for water, sanitation, and hygiene services
- Empowering local communities and institutions with the knowledge and skills needed to track the performance of water, sanitation, and hygiene systems and the changes in hygiene behavior
- Encouraging communities and institutions to share information with local decision-makers about the performance of water, sanitation, and hygiene services and the changes in hygiene behavior

HOW DO I SUPPORT A SCHOLAR IN WATER, SANITATION, AND HYGIENE?

Global grants support graduate-level scholarships for professionals who want to pursue careers in water, sanitation, and hygiene. The Foundation considers these factors for global grant scholarship applications:

- The person's previous work experience in the fields of water, sanitation, and hygiene
- The academic program's alignment with water, sanitation, and hygiene
- The applicant's career plans and how they relate to water, sanitation, and hygiene

Each scholar is considered individually. Typical degrees for scholars planning to work in water, sanitation, and hygiene include:

- Integrated water resource management
- Public health
- Environmental health
- Civil engineering (water and sanitation)
- Environmental engineering
- Hydrology
- Watershed management

Career plans are a major consideration when the Foundation determines the eligibility of a global grant

scholar. Potential future careers include public health specialists in water, sanitation, and hygiene; water resource managers; water and sanitation engineers; professional water operators; and water, sanitation, and hygiene policy advisers to governments and nonprofits.

WHERE CAN I FIND MORE INFORMATION?

Among the best resources are the regional grants officers and the area of focus managers. In addition to their professional expertise and education, they draw on The Rotary Foundation's long experience in funding effective projects to make sure your global grant projects are eligible for funding.

Rotary has an array of other project planning resources to help members find answers at various steps of the process. These resources can help you plan a successful project, find support for your efforts, promote your work, and evaluate its impact.

Other resources for technical expertise, guidance, and experience are the Cadre of Technical Advisers, the Water, Sanitation, and Hygiene Rotary Action Group, the Environmental Sustainability Rotary Action Group, and the Rotary Action Group for Menstrual Health & Hygiene. Cadre members are trained to help clubs and districts plan and evaluate global grant projects. Rotary Action Groups include experienced Rotary members and nonmembers around the world who are dedicated to helping clubs and districts develop sustainable water, sanitation, and hygiene projects.

Consider contacting your district international service chair as well. They serve as the coordinators of local technical resources, partnerships, and expertise in your district.

You can also find information to help you plan for your water, sanitation, and hygiene global grant in:

- A Guide to Global Grants
- Terms and Conditions for Rotary Foundation Global Grants
- Areas of Focus Policy Statements
- Six Steps to Sustainability
- Global Grant Monitoring and Evaluation Plan Supplement
- Global Grant Lifecycle