

## **Rain water Harvesting Model Competition – 2023 - Concept submission Form**

### **Guide for Students and Teachers: Steps to Submit Your Concept**

#### **1.Participants Details:**

In this section, please provide all the necessary details about your school and the participants involved in the project. Ensure that the group members remain constant throughout the project. While two teachers can supervise the group, we encourage all teachers and students from your school to support this initiative.

#### **2.Current Water Sources of the School:**

This section requires you to explain the existing water sources at your school. Identify all the water sources used and the activities where water is utilized on the school premises. Include information about the distances to these water sources and their availability during different months. To assist you, we have provided a table for completion. Please discuss this with your team and teachers.

#### **3.Identify Water-Related Issues Faced by the School:**

This is a crucial section where we urge you to identify the water-related challenges your school is encountering. These issues can be apparent, hidden, or invisible. To pinpoint these concerns, discuss the following questions with your team:

- Do we have an adequate supply of water for drinking purposes at school?
- Is the water we are using of sufficient quality for drinking, and has it been tested?
- Are any members of the school experiencing waterborne diseases?
- Is there enough water available for toilet use, especially for girls and women during menstruation?
- Do we have enough water for handwashing purposes?
- Does the school have significant expenses on water bills?
- How does the school cope with droughts or floods to ensure sufficient water availability?
- Are there any other pressing water-related issues that require discussion?

Take the time to understand the water-related challenges your school community is facing.

#### 4. Identify an Appropriate Rainwater Harvesting (RWH) System for the School:

This section entails selecting a suitable Rainwater Harvesting (RWH) system based on available resources, needs, and identified issues. This could involve a roof rainwater harvesting system, groundwater recharge system, surface water runoff system, etc. To make the right choice, discuss the following questions with your team:

- Consider the water demand of your school and determine the water needs that can be fulfilled using rainwater. Calculate the amount of water you plan to collect through this system.
- For what purpose you are collecting rainwater, what should be the required quality?.
- Available space, catchment, storage requirement
- Study the rainfall patterns in your area, considering both months and volume.
- Choose the appropriate catchment surface for collecting rainwater, which could be a roof, floor, road, or any large surface, based on your requirements.
- Think about the delivery system, which involves transporting the collected water to the storage.
- Plan the storage system, including the materials used for construction, size, availability, and budget constraints.

Feel free to research and read more about rainwater harvesting systems on Google, but we encourage you to come up with your innovative ideas. Once you decide on the type of rainwater harvesting system, start designing the system.

#### 5. Design Your Rainwater Harvesting System:

With sufficient resources at hand, it's time to get creative yet practical. Design your rainwater harvesting system and draw a sketch of your planned setup. Remember, your final design will be presented creatively during the competition's final submission. For now, a drawing of your planned design will be sufficient.

## 6. Innovative Solutions:

Your proposed rainwater system should incorporate a new ideas, on components, methods, appropriate water treatment system/ and maintenance system. Consider methods to save water and maximize its utilization, ensuring every drop counts.

## 7. Budgeting:

Create a budget for the construction of your rainwater harvesting system. List down all the items you will need to construct the system and the quantity of each item. Research the market value of items and services you'll need for the project. Remember it has to be available items in the Sri Lankan market.

## 8. Resources

Lanka Rainwater Harvesting Forum (LRWHF) Website – [www.lankarainwater.org](http://www.lankarainwater.org)

Rainwater Harvesting Practitioners Guide for Sri Lanka by Lanka Rainwater Harvesting Forum

Rainwater Calculator - <https://www.lankarainwater.org/rainwater-calculator/>

Please provide as many details as possible for each section. Additionally, think about new projects that you can initiate at your school using rainwater. Emphasize environmental friendliness in your approach, and don't hesitate to think outside the box. We believe in your young minds and your ability to come up with practical and innovative solutions.

Good luck with your project!