

PROJECT SUMMARY

Title of Project	Rain water harvesting Project for the Safi Institute building
Location	Social Advancement Foundation of India (SAFI), East Vazhayoor P.O., Via Ramanattukara, Malappuram Dist., Kerala, South India
Objective	The project aims at constructing a rain water harvesting structure in the campus building.
Duration	One year
Executing Agency	Social Advancement Foundation of India (SAFI) Rasia Nagar, Vazhayoor East P.O Ramanattukara Via Malappuram-673 633 Kerala, S. India
Project Cost	Rs. 4,80,000.00 (Rupees four lakh and eighty thousand only)

Dr. P. Mohamed Ali (Galfar)
Chairman

Mr. T.P. Imbichammad
Secretary

Rasiya Nagar
06.02.08

SOCIAL ADVANCEMENT FOUNDATION OF INDIA

RAIN WATER HARVESTING STRUCTURE ON SAFI BUILDING

Introduction

Social Advancement Foundation of India (SAFI) is a nonprofit charitable trust established in September 2001 for the upliftment and transformation of educationally backward classes, particularly Muslim community into a progressive and advanced society. The trust is constituted by educationists, philanthropists and social activists with the objective of providing for academic and research programmes in frontier areas of science and technology and humanities, maintaining international standards. The vision of SAFI is the transformation of our people into an intellectually and morally advanced society competent and dynamic enough to meet the challenges of the modern world. SAFI envisages the emergence of competent leaders in every field.

SAFI Institute of Advanced Study (SIAS) is the most important institution conceived for the fulfillment of its mission. It is to be developed as a hub for post graduate study and research, a centre of excellence, which should in due course become a University or a deemed university. It requires careful advance preparation and massive investment. We have already acquired about 440 acres of land of which about 150 acres is set-apart for developing a campus and rest for developing a Township. We have already provided a magnificent building for housing the existing post graduate department of study like Biotechnology, Bio informatics, Mass Communication and journalism & Islamic Studies. The investment so far is about Rs. 20 crores. It has been the result of the generosity of our patrons.

For the institution to develop into a full fledged campus, much more facilities are essential and we approach our patrons with the hope that they will support or sponsor this project so that Safi Institute of Advanced Study will evolve into an ideal campus.

Project in detail:-

The acute shortage of water even for drinking became a common phenomenon in our state. The major source of water, rain, must be saved and used to recharge the underground aquifer and also to meet the water demands in the non rainy seasons to solve the problem of water scarcity. Not all the rain water that falls on the ground seeps in to the soil. A surplus of rainwater flows out as stream or as runoff. This runoff water is normally not available either for recharging aquifers or meeting our water demands.

The rainwater harvesting is a scientific technology applied to augment the ground water by artificial recharge and to save water for consumption. Rain water harvesting techniques benefit in several ways such as reducing soil erosion, improving insitu water conservation, increasing soil moisture content, preventing sea water intrusion in coastal regions, replenishing ground water storage etc. Roof water harvesting is one of the major features of rain water harvesting.

The roof tops of building serve as relevant collection centers (catchment) for rainwater. These water, otherwise lost as surface runoff, can be properly utilized to meet water requirement in non rainy seasons. The excess water in the rainy season may be effectively managed to recharge the ground water table either through existing wells or percolation pits or mini artificial aquifer system. Thus the main objective of the project is conservation, management and utilization of rain water effectively to reduce the problems of drought by establishing roof water catchment unit of 1 lakh litre capacity.

At present we are bringing water from an open well dug in a field at Vellayikode which is about ½ Km away from our main building. The continued drought in the area necessitates construction of these type of devices to store rain water which will be helpful to the inmates of our campus. The project proposed is to construct two nos. of 1 lakh litre capacity rain water harvesting structures in the building the plinth area of which is 65166 Square feet.

Objective

The project aims at constructing two rain water harvesting structures very close to the existing SAFI main building.

Location

The harvesting structures will be constructed very close to the campus building.

Design of the Unit

A typical unit consists of following four components

1. Rain water conveyance system.
2. Water storage tank.
3. Distribution system (optional)
4. Recharge Unit

(1) **Rain water conveyance system** : Rain water falls on the roof of building is conveyed through PVC pipes or half round PVC pipes to the to the storage tank. PVC pipes of various sizes and PVC fittings are selected as per the actual site condition.

(2) **Water Storage Tank** : Low cost Ferro cement Tank is used for collection and storage of roof water harvested. A filtering tank is also constructed along with Storage Tank. Broken stone, charcoal and sand are used as filtering materials.

(3) **Distribution system (optional)** : Distribution system consists of a suitable pump set , pipe line and an auxiliary storage tank (500 litre Capacity)

(4) **Recharge Unit** : It consist of an artificial recharge pit/percolation tank. Excess water collected in the storage tank diverted to this pit through pipes.

Project cost

a) Construction of storage tank	Rs. 2,20,000.00 x 2	: Rs. 4,40,000.00
b) Roof water conveyance, distribution system, recharge unit etc.:	Rs. 20,000.00 x 2	: <u>Rs. 40,000.00</u>
	Total	: <u>Rs. 4,80,000.00</u>

(Rupees four lakh and eighty thousand only)

Project implementation and monitoring

The project will be implemented in 6 months. The rain water harvesting structures so constructed will be dedicated in the name of the donor or his nominee.