

What is the impact of water conservation measures on the groundwater resources?

What kind of irrigated cropping pattern in a given watershed unit sustains the groundwater levels ?

What is the non-revenue water (NRW) (or) wastage (or) losses in a given water supply system ? How to identify and plug them ?

Organizations and individuals involved in water conservation, water supply, groundwater recharge and watershed management are bothered by these questions, even while they carry out their implementation. Donors insist the implementing agencies to quantify the impacts of these projects.

Many NGOs and individuals implementing water conservation projects find the Groundwater Estimation Committee (GEC) guidelines for groundwater budgeting cumbersome to understand and implement. A simple software tool developed by WLF will make this task simpler and automatic. Graphical output is generated as soon as the data is filled in, which may be copied and inserted into the reports.

This apart, the training event differentiates 'water auditing' from 'water budgeting' and introduces methods for its application in rural water supply projects.

Mail any query related to this training course to [wlfoundation@outlook.com](mailto:wlfoundation@outlook.com) (or) call Ramamohan-9440194866

## Details of the Event

### Mode of Training Event ONLINE

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Duration and Date(s)  
3 DAY

Medium : English

04-06 Oct 2021  
(daily 16.00-17.30 hrs IST)

### --- Registration link:

<https://forms.gle/vTMELCPGKCRnRgZ9>

(Web meeting link will be shared to registered participants later)

### --- Last date for registration

Early bird: 05 Sept 2021

Final date: 30 Sept 2021

### --- Registration fee & other details

**Course fee contribution per participant:**

Early bird registration: Rs.1,350

Final date registration: Rs. 1,950


(Includes free software and hand-holding support after the training)

## Groundwater Budgeting and Auditing

Conceptual and hands-on training on the software tool developed by WLF

(For NGO workers & Water sector professionals)

**Groundwater Budgeting Software Tool**  
(For Predominantly Non-command Areas)  
(Ver. 4.0, Aug 2021)

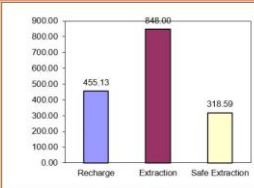
 **R.V.Ramamohan**  
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Telangana, India  
Ph: +91 40 27014467; Mobile:+91 9440194866/

This is a freeware and may be used by a

Number of total functional bore wells in the area: 1 (in MG)  
Number of sample bore wells considered: 1 (in MG)

Sl.No.	Crop	Crops - Monsoon Season (June-Oct)			
		Total Area (Acres)	Water Requirement (mm)	Total Water Consumption (cub.m)	Total Area (Acres)
1	Groundnut	2.50	285	2280	
2	Castor	3.50	450	6300	
3	Sorghum	2.00	175	3500	
4	Blackgram	8.00	175	5600	
5	Sorghum	2.85	285	2280	
6	Millets	1.80	285	1140	
7	Millets	2.85	285	2280	
8	Cereals	2.85	285	2280	
9	Cereals	4.00	400	1600	1.00
10	Vegetables	1.00	400	1600	1.00

1000 cub.m  
1000 cub.m  
1000 cub.m



186.32 %

Safe < 70 %  
Semi-critical 70 - 90 %  
Critical 90 - 100 %  
Over-exploited > 100 %



**Water and Livelihoods Foundation**

12-13-451, Street no.1, Tarnaka

**Secunderabad - 500017, India**

## About WLF

Water and Livelihoods Foundation (WLF) is an NGO based in Hyderabad, India. WLF strives towards achieving water security and livelihoods enhancement of poor through community development initiatives, action research & innovations and skill development.

Contributing to the skill building of NGOs, development workers and researchers is one of the major objectives of WLF. Apart from themes such as, water quality, GIS applications, ground water recharge etc., WLF offers skill building modules on data compilation, analysis and interpretation.

Through its skill-building efforts, WLF would like to improve the quality of service delivery by the participants and make positive impact on the life of poor and deserving communities at large.

## RESOURCE PERSON

R.V. Ramamohan is the developer of the groundwater budgeting software tool and has got more than 20 years of experience in the NGO sector. Ramamohan holds an M.E. in Water Resources Engineering and carries vast professional experience - with uncompromised rigor - in the areas of water resource conservation, groundwater estimation, quality assessment, field methods of recharge evaluation, hydrological assessment of urban floods etc.

The first version of this Groundwater Budgeting tool was released in 2010 and three major revisions were done by 2021. He earlier developed a unique method of testing the recharge capacity of dry bore wells and a software for the purpose. His training sessions on data handling, processing and visualization are the most appreciated by several participants of the previous training courses.

## OBJECTIVES OF THE COURSE

- 1) To equip the participants with basic concepts of water budgeting & auditing, with emphasis on groundwater.
- 2) To introduce the 'Groundwater Budgeting Software Tool Ver.4 (2021)' to the participants for easier integration of quantitative impact assessment into their on-going projects.

## COURSE CONTENT

The training content covers broadly the following aspects:

1. *Groundwater occurrence and movement in different geological formations*
2. *Quantifying groundwater extraction for agriculture and other purposes*
3. *groundwater recharge contribution of rainfall, return flows & artificial storages*
4. *Rainfall-recharge factor method vs. water table fluctuation method*
5. *Methods of sampling the wells for monitoring and groundwater budgeting*
6. *Assumptions and limitations of the groundwater budgeting methodology*
7. *Differentiating water auditing and water budgeting*
8. *Water auditing applications to quantify water wastage, leakages etc.*
9. *Forecasting the groundwater status for different usage scenarios*
10. *Interpreting the groundwater budget output for course correction in project interventions*

## METHODOLOGY

Both conceptual and practical skills are provided, with emphasis on application to various water conservation and groundwater recharge projects. The course methodology includes hands-on demonstration on the software tool.

## EXPECTED BACKGROUND OF PARTICIPANTS

NGO staff, research scholars, students and development professionals involved in water conservation, watershed mgt. and groundwater recharge & efficient use. No additional hardware is required, except a normal Windows OS based computer. Training course will be in English medium.

## COURSE FEE & METHOD OF APPLICATION

- Early bird offer – Applied before 05 Sept 2021 → Rs. 1,350 per participant
- Applied before last date 30 Sept 2021 → Rs.1,950 per participant

Candidates interested to participate may register using the following Google Form:

<https://forms.gle/vTMELCPSGKCRnRg79>

Bank details of WLF for course fee payment are also included in this registration form. Payment through UPI applications (such as, GPay or PhonePe) may also be done to the bank account of WLF, using the 'payment to account' option.

Course fee includes free software tool and possible hand-holding support to those interested to try the tool in their own projects and areas.

Participation certificates will be sent by post after completion of the training course. It is suggested to provide complete postal address with PIN code and correct mobile number in the registration form for this purpose.

For queries & further information, contact:  
Mob: 9440194866, [wlfoundation@outlook.com](mailto:wlfoundation@outlook.com)