

ANNUAL REPORT 2022



**Water and Environment Development Organisation
(WEDO), NGO, Kozhikode, Kerala, India**

Website: www.wedongo.org

January 2023

Name of the NGO: Water and Environment Development Organization (WEDO)

Address: 28 / 566, Poornima, Ayyappa Nagar, Chevayur, Kozhikode - 673 017 Kerala State, India

Details of Registration: Reg. No. KKD / CA / 1074 / 2015 Dated 15-12-2015 of the Registrar of Society, Dept. of Registration, Kozhikode, Kerala. Renewed during the period 2016-2022.

Office Bearers

President: Dr. K. Madhava Chandran

Vice President: Sri. T. Valsan

Secretary: Sri. P. Jayakumar

Joint Secretary: Sri. V. Aravindakshan

Treasurer: Sri. V. Radhakrishnan

Executive Members:

Sri. E. Balakrishnan Nair

Sri. Jayaprasaad. K. M.

Sri. V. Sundararajan

Objectives

The main objectives of WEDO are to promote water conservation, development and management programs for ensuring adequate water of good quality for people. Awareness programs, rain water harvesting, water management for domestic / agricultural purposes, water purification, establishment and maintenance of water storage / conveyance structures, providing water literacy for children, skill development training on water resources development / management etc. are envisaged for realizing this objective

Other objectives include promotion of sustainable organic farming, scientific environment friendly natural resources management, forestry development, scientific waste management, generation of data bank on water and other natural resources,

promotion of physical and mental development of children, providing assistance to poor for treatment of chronic ailments, promoting voluntary blood donation, women empowerment programs, development of public consciousness on social evils like drug abuse, alcoholism, AIDS etc., promotion of HRD and institution building programs, provision of health awareness programs, promotion of Yoga, Meditation, Art of living and other mind-body relaxation techniques etc.

1. Activities undertaken

The following activities were undertaken by WEDO during 2022-23:

Submission of project proposals

a. The collaborative proposal with CWRDM, Kozhikode entitled “Action research on PIM for improving irrigation efficiency under a minor irrigation project” was submitted through CWRDM to DST, Govt. of India under the Strengthening, Nurturing and Up scaling Innovations for Livelihood (SUNIL) scheme during Feb 2023

b. The collaborative proposal with CWRDM, Kozhikode entitled “Livelihood security of Kattunaikan and Kadar particularly vulnerable tribal groups in Kozhikode, Kerala through conservation of traditional knowledge and managing natural resources” was submitted through CWRDM to DST, Govt. of India under the Accelerated Development of Particularly Vulnerable Tribal Groups scheme during January 2023

c. The proposal entitled “Demonstration and Awareness Creation among Farmers on Low Cost Vermicomposting and Wick Irrigation Techniques” was submitted to NABARD for funding during January 2023

d. The proposal for establishing roof top rainwater harvesting units and conducting awareness programmes in SC/ST colonies was submitted to Awesome Foundation during January 2023

e. The following proposals were submitted to Dhanalakshmi Bank, Thrissur, Kerala for funding during January 2023:

- i. Water quality testing by schools using kits in Kozhikode District
- ii. Rainwater harvesting in Kozhikode District

f. The following proposals were submitted to various Block / Grama Panchayaths in Kozhikode District during January 2023:

- i. Water quality testing programme and remedial measures
- ii. Wick irrigation technique for grow bag based vegetable farming
- iii. Roof top rainwater harvesting and well recharge technique

Accordingly, some of the panchayaths informed WEDO that they are considering some of the above projects for implementation in their 2023-24 programmes.

g. The proposal for conducting “Awareness programme on Life and Energy Saving” was submitted under the Urja Kiran programme of Energy Management Centre, Govt. of Kerala during December 2022. Sanction was obtained for conducting this programme in Kunnamangalam Grama Panchayath, Kozhikode District

h. Based on their request, agreed to be the Project Management and Development Consultant to WAPCOS, Thiruvanthapuram in the proposal on “Performance improvement and accelerated implementation of AMRUT 2.0 in Kerala”, which was submitted by WAPCOS to Govt. of India during September 2022

i. The proposal entitled “Sensitising programme for stakeholders on the impacts of climate change on water resources and its mitigation measures” for implementation among people in Kunnamangalam block was submitted to NABARD for funding during August 2022

j. Requested details of a climate change based project for Civil Society Organizations (CSOs) for mitigating the climate crisis was submitted in Google form to Shakthi Sustainable Energy Foundation, powered by Intellect in July 2022

Projects undertaken

a. *Study on the water quality status of households in various districts of Kerala*

Data collection has been completed and the report is being prepared

b. Study on the effect of yoga practice on psychological and physical health parameters was undertaken for Satyananda Yoga Research Centre, Kozhikode

This study revealed that majority of the yoga practitioners have high to medium level of health. A very high proportion report slight and very much improvement in the psychological and physical health parameters due to yoga practice with or without treatment /medicines, when compared to the base line condition of with or without treatment / medicines alone. Yoga practitioners are found to have very less hostility towards others and maintain good level of calmness, which could contribute to better wellbeing for them. Age and months of yoga practice have significant contribution to the health of the respondents. People who practice “yoga nidra” are found to have a very high chance of maintaining good health than those who do not practice it. Such results assume importance, especially in the context of the uncertainty and anxiety created by the present COVID-19 pandemic, which could also lead to psycho-somatic disorders among people. Further, this is where the print and visual media can play an important role by making available the positive results of studies on yoga, meditation etc., which could motivate more people to practice such techniques and get benefits.

c. Study on the mood of people during the COVID- 19 pandemic

The results showed that the COVID-19 pandemic has influenced the psychology of the respondents negatively. The influence of existing tension of people in creating more tension during the pandemic period is evident from the study. Random Forest technique results show that Enthusiasm, Satisfaction, Loving nature and Peacefulness are the main psychological traits, which influence the personality state score. The characteristics of respondents such as age, education, pre COVID tension and pre COVID tension affecting the tension during the pandemic period are found to influence the personality score statistically through Chi-square test. Odds ratio test shows that respondents with PG qualification have about 4.62 times more chance of maintaining a better psychological state during the pandemic period than less educated people. Males have 1.16 times more chance of maintaining a better psychological state than females

d. Study on the consequences of COVID in India

The COVID consequences score showed that majority of the respondents have faced medium level of consequences due to the pandemic, while some of them faced low consequences only. Negative consequences such as mental stress, income/ job loss, less social interaction, increase in health problems, unrest or quarrel in the family, social interaction/transportation/recreation/capability of old people to support themselves/health care for medical problems being affected, work from home not helpful, and less reduction in family expenses during the pandemic have been observed under the study. Positive consequences of the pandemic such as reduced pollution and better environmental conditions due to lock down, lock down time used for learning agriculture/fisheries, and increase in time spent with family are also evident. Factor analysis shows that age, education, and no. of family members of the respondents explain 69.9% of the variability in their total consequences score. Odds ratio reveals that people aged more than 40 years, with PG and Degree qualifications, and having more than 4 family members faced less COVID related consequences. This is also substantiated by the comparatively higher proportion of people under these categories of the three characteristics giving favourable responses for positive and negative consequences items under the study

e. A study on the *practice and continuation of yoga and meditation* was undertaken for Satyananda Yoga Research Centre, Kozhikode

The study showed that even though a very high proportion of respondents are practicing yoga, only about half of them continue it, mainly attributed to lack of time. Statistically significant difference exists between the yoga continuation / discontinuation score of respondents with different educational backgrounds, with Ph.D. holders getting a comparatively lower mean score due to more people discontinuing than PG, Degree and Diploma holders. Statistically significant difference observed between the age of respondents continuing and discontinuing yoga indicates that yoga continuers are mainly of a higher age than discontinuers. Statistically significant difference exists in the mean score of yoga continuation / discontinuation of married and un-married people also, with more married respondents continuing yoga than those who are not married. However, sex wise statistically significant difference in yoga continuation / discontinuation score was not observed in the study.

Regarding the practice of meditation other than yoga nidra, 42 % respondents only report it. However, among them, about 57 % report that they are continuing it. Similar to yoga discontinuation, a very high proportion of respondents attribute discontinuation of meditation also to lack of time. Statistically significant difference in the meditation continuation score of the respondents was observed between those who are aged up to 50 and those with age of more than 50 years. The mean continuation score of respondents in the former category is slightly less than that of those in the latter category of age. Even though the results of the study reveal that a high proportion of respondents have practiced yoga, the proportion of meditators is less than 50 % only. However, only about 50 % of those who had practiced yoga and meditation are continuing them, primarily attributed by them to lack of time. Actually, this reason can be considered more of an outcome of lack of interest to continue yoga / meditation, since, people who have interest in continuing these practices will try to manage the time to practice such useful relaxation techniques. Further, some of the people who gave such a reason could probably be those who have not faced much problems in life, and hence, may not feel the need to practice yoga / meditation to overcome them.

f. *Study on Improvement in Feelings and Memory Power of Children through the Practice of Meditation* was carried out for Satyananda Yoga Research Centre, Kozhikode.

This study has shown the effect of meditation on the feelings experienced by the children and also on their memory power. It may be noted that the improvement in various positive and negative feelings and memory power has been achieved through meditation by the children just for three minutes per day for a period of one month only at their school. Better results can be expected if they are able to continue meditation for a longer duration each day, as well as for more number of days at the school or at home.

Awareness programmes

a. Awareness classes for the public on artificial well recharge (rainwater harvesting and recharge) in the demonstration plots located at Muvattupuzha in Ernakulam District (which were established earlier by WEDO under the Punjab and Sindh Bank funded project) was conducted in April, 2023. Sri. Babu Mathew, Member WEDO

handled the classes, with the support of Sri Jose, former Technical Officer, TEED, CWRDM who is located at Muvattupuzha

b. Sri Valsan, T, Vice-President, WEDO handled three classes under the national level training course on 'Capacity Building and Strengthening of Water User Associations' organised by CWRDM Kozhikode during 16 -18 March 2023

c. Dr. Madhavan Komath, Member, WEDO delivered a talk on the topic - Water and Health for the students of Govt. High School, Pannippara, Edavanna on 27th February 2023

d. An orientation program was held with farmers at Omassery service co - operative Bank, Omassery, Kozhikode during November 2022 to explain about the proposed project on vermicomposting cum wick irrigation proposed to be submitted by WEDO to NABARD for funding. This was with the objective of getting details of interested farmers to be associated with such a project. NABARD, DDM Malappuram Sri. Mohammad Riyas, Dr. K. Madhava Chandran, President, WEDO, Sri P Jayakumar, Secretary, WEDO and Sri K M Jayaprasad Prasad, Executive member, WEDO attended the programme

e. Dr. K. Madhava Chandran, President, WEDO delivered an invited talk at Satyananda Yoga Research Centre on International Yoga Day- June 21, 2022 on the topic - Research findings on yoga and meditation

f. Various panchayaths in Kozhikode District were approached by WEDO with the offer of providing awareness classes on water and related environmental topics by the members, who have expertise on these aspects

Webinar

Organised an on - line webinar on the topic - Impact of COVID- 19 on Agriculture in July 2022, in association with the Trust of 1977-81 Agriculture batch, College of Agriculture, Trivandrum.

A report of the webinar was prepared.

The following experts presented papers at the webinar:

a. Dr. S. Chandrashekar, Professor, Extension Education Institute, Jayashakar Telangana State Agriculture University, Rajendranagar, Hyderabad

b. Dr. S. Marimuthu, Associate Professor (Agronomy), TNAU, Coimbatore

c. Sri. Pushpangadan V.V. Retd. Additional Director (Agri.), Kerala & Senior Consultant, UPL Ltd.

Internship programme for students

Two B.Tech students from NIT, Kozhikode completed their internship under the guidance of Sri CM Sushanth, Member, WEDO on the topic - Design of Rainwater Harvesting Structure, and submitted the report. A completion certificate was awarded to them by WEDO.

Guidance to school students on scientific project report preparation

i. The students of Karaparamba Govt. High School, Kozhikode with the guidance of Dr. Madhavan Komath, Member, WEDO presented and submitted their report on the topic- 'Monitoring of Water Quality Parameters' during October 2022

ii. The students of Medical College Campus High School, Kozhikode, who were guided by WEDO, presented and submitted their report on 'Soil Health Management for Improving Agricultural Production' in February 2023. This project was carried out under the guidance of Dr. K. Madhava Chandran, President, WEDO

iii. Nadakav Girls High School, Kozhikode students, who were guided by WEDO presented and submitted their report in February 2023 on 'Monitoring of Water Quality Parameters' carried out with the guidance of Dr. Madhavan Komath, Member, WEDO

iv. Providence Girls High School, Kozhikode students who were guided by WEDO presented and submitted their report in March 2023 on 'Monitoring of Water Quality Parameters' carried out with the guidance of Dr. Madhavan Komath, Member, WEDO.

Project completion certificates were provided by WEDO to the schools/students



Certificate distribution by Sri Pradeep Kumar, Former MLA, Kozhikode to a student of Karaparamba Govt. High School, Kozhikode involved in the scientific project report preparation on 'Monitoring Water Quality Parameters'



Dr Madhavan Komath, Member, WEDO and guide of the project orienting the staff and students of Providence Girls High School, Kozhikode on scientific project report preparation on 'Monitoring Water Quality Parameters'



Students / Staff of Providence Girls High School, Kozhikode and WEDO experts involved in the scientific project report preparation on 'Monitoring Water Quality Parameters'



Dr. K. Madhava Chandran, President, WEDO and guide of the project orienting the staff and students of Medical College Campus High School, Kozhikode on scientific project report preparation on 'Soil Health Management for Improving Agricultural Production'



Sri. P. Jayakumar, Secretary, WEDO presenting the certificate of scientific project report preparation on 'Soil Health Management for Improving Agricultural Production' to a student of Medical College Campus High School, Kozhikode involved in the project

2. WEDO Website

The website of WEDO- www.wedongo.org was developed, which shows details such as objectives, thrust areas, activities, publications etc.

3. WEDO Brochure

2000 copies of a multi-coloured brochure of WEDO was printed, highlighting the objectives, thrust areas, activities, expertise etc.

4. Other activities

a. Based on the request from the Head, Land & Water Management Research Group, CWRDM, Kozhikode for implementing a Participatory Irrigation Management (PIM) programme to improve water distribution / efficiency in the command area of a water scarce region, Kizhakumpadam farmer managed minor irrigation project located at

Cherukulathur in Peruvayal panchayath of Kozhikode District was identified by WEDO. The farmers were oriented about the proposed programme. Accordingly, they expressed willingness to associate with the programme to be implemented by CWRDM with the assistance of WEDO. The layout of PVC pipes in the command area for improving irrigation water supply is being presently undertaken by Land & Water Management Research Group of CWRDM

b. The final report of the NABARD funded awareness project on climate change impacts on water resources and its mitigation measures which was conducted in Mavoor and Kunnamangalam grama panchayaths in Kozhikode District was submitted to NABARD. Also sent a copy of the report to the Presidents of the panchayaths, for whom it was conducted. Also sent a copy to the President of Kunnamangalam grama panchayath, under which, comes these two grama panchayaths

c. WEDO became a member of the NGO Confederation, Kerala and WEDO office bearers participated in various meetings of the confederation on-line and the meetings held at Kochi and Kozhikode

d. Collaborated in conducting the national level training course on “Capacity Building and Strengthening of Water User Associations’ organised by CWRDM Kozhikode during 16-18 March 2023. The Programme was sponsored by National Water Mission, Ministry of Water Resources, Govt. of India. WEDO arranged 31 farmer leaders representing various WUAs from Malappuram and Kozhikode Districts for the programme.

Sri Valsan, T, Vice-President, WEDO handled the sessions on the following topics: Roles and Responsibilities of WUAs, Conflict Resolution, and Resource Mobilisation, Accounts and Bookkeeping under the training programme. He was also involved in arranging field visits for the trainees

5. Publications

Reports

GVHSS for Girls, Nadakkavu, Kozhikode (2022). *Project Report on Monitoring Water Quality Parameters*. Prepared by the students of the school under the guidance of WEDO, Kozhikode. June 2022. 13 p.

WEDO (2022). *Report of the Webinar on the impact of COVID-19 on agriculture* – organized by WEDO, Kozhikode in association with the Trust of 1977- 81 Agriculture Batch of College of Agriculture, Vellayani, Thiruvanthapuram on 31st July 2022. August 2022. 20 p.

WEDO (2022). Study on the practice and continuation of yoga and meditation. *Project Completion Report*. Satyananda Yoga Research Centre, Kozhikode and WEDO, Kozhikode, September 2022: 11 p.

WEDO (2022). Study on improvement in feelings experienced by people through yoga practice. *Project Completion Report*. Satyananda Yoga Research Centre, Kozhikode and WEDO, Kozhikode, September 2022: 10 p.

Medical College Campus GHSS, Kozhikode (2022). *Project Report on Soil Health Management for Improving Agricultural Production*. Prepared by the students of the school under the guidance of WEDO, Kozhikode. December 2022. 9 p.

WEDO (2022). Study on improvement in feelings and memory power of children through the practice of meditation. *Project Completion Report*. Satyananda Yoga Research Centre, Kozhikode and WEDO, Kozhikode. January 2023: 9 p.

Providence Girls HSS, Kozhikode (2023). *Project Report on Monitoring Water Quality Parameters*. Prepared by the students of the school under the guidance of WEDO, Kozhikode. March 2023. 9 p.

Research papers

Madhava Chandran, K. and Valsan. T. (2022). Mood of people during the COVID-19 pandemic: Analysis from Kerala State, India. *Sasthra - The Ind. J. Sci & Technol.* (2022) - 3(3): 55-59

Madhava Chandran, K., Naveena, K., Venu Prasad, H. D. and Valsan. T. (2022). Consequences of the COVID-19 pandemic: A study from India. *Psychology J Res Open*, Vol. 4 (1): 1-7

Madhava Chandran, K. Vijayaraghavan, N., Valsan. T., Sreekumaran, C. and Radhakrishnan, N. P. (2022). Practice and continuation of yoga: A study from India. *International Journal of Arts, Humanities and Social Studies*, Vo. 4 (4); July- Aug 2022: 116-119

Madhava Chandran, K., Naveena, K. and Valsan, T. (2022). Analysis of the psychological state of people during the COVID- 19 pandemic. *Neurons and Neurological Disorders*. 1(1); DOI: 10.0810/JNND.2022/0001. 6 p.

Madhava Chandran, K., Valsan. T., Vijayaraghavan, N. and Radhakrishnan, N. P. (2022). Analysis of the changes in feelings and memory power of children due to meditation practice. *Sci. Academique*, 3 (2): 1-05

Madhava Chandran, K., Sangeeth, B., Vijayaraghavan, N. and Radhakrishnan, N. P. (2022). Attitude of people towards meditation: A study. *J Yoga & Physio*. 2022; 9 (3): 555762. DOI: 19080/JYP.2022.09.555762JYP. 5 p.

Madhava Chandran, K., Valsan. T., Vijayaraghavan, N., Radhakrishnan, N. P. and Sreekumaran, C. (2022). A study on improvement in feelings of yoga practitioners.

Indian Journal of Ancient Medicine and Yoga, Vol. 15 (4), October- December 2022:
135-140

Madhava Chandran K., Bijunath, A., Unniraman, P. and Anjana, K.J. (2023). Influence of Yoga in Maintaining a Positive Mental State: Study from Kerala State, India. *Acta Neuropsychiol* 2023, 4(2): 180014. 3 p.

WEDO (NGO), Chevayur, Kozhikode		
RECEIPT AND PAYMENT ACCOUNT FOR THE YEAR ENDED 31 ST MARCH 2023		
Opening Balance		
SL NO	PARTICULARS	Amount (Rs)
	B/F amount at Bank	1,35,752.05
	B/F amount in Hand	Nil
1	Membership fee	10,750
2	Bank interest	3,121
3	Receipts from schools for project guidance	4,000
	TOTAL RECEIPTS (including B/F amount)	1,53,623.05
EXPENDITURE		
1	WEDO registration renewal	200
2	Website design	5,200
3	Brochure printing	8,700
4	Audit fees for FY 21-22	2,500
5	Honorarium for Mr Sushanth	1,200
6	Loan return to treasurer	11,306
7	Report design, editing, scanning ,printing etc.	1,230
8	Paper publication charges	1,500
9	Fuel expenses incurred by WEDO members	5,550
10	WEDO logo re-design	150
11	WEDO letter head printing	1,100
12	Photostat and printing charges	1,390
	TOTAL EXPENDITURE	40,026
CLOSING BALANCE as on 31 ST MARCH 2023		
	CASH IN HAND	19,574.00
	CASH AT BANK	94,023.05
	Total Closing Balance as on 31ST MARCH 2023	1,13,597.05

President

Treasurer