Fostering education and awareness on water

# ABSTRACT

Citizen engagement in water-related issues is vital for securing future water supplies and protecting waterways. In this paper we explore elements of engagement in water related issues – what people know, what they value and their actions, and describe how these cohere in ways that can inform planning and interventions**.**

# INTRODUCTION

Water is one of the vital Natural resources in all living creatures. Everyone needs water to survive. Clean water is a very important component of our life, so we need to conserve water for future safety. It the only solution to save water that water should not waste it unnecessarily. If we save water; we will save life and save whole world on the earth. We should join our hands together and make a promise of using water according to need only without contaminating it. Fresh, clean water is a limited resource. While most of the planet is covered in water, it is salt water that can only be consumed by humans and other species after undergoing desalination, which is an expensive process. Occurrences such as droughts further limit access to clean and fresh water, meaning people need to take steps to reduce water use and save as much water as possible. In some areas of the world, access to water is limited due to contamination. Conserving water now allows cities and regions to plan for more efficient use of the water resources in the future. If most of an area's clean water is wasted, there will not be water for future generations to use, meaning the city will need to come up with new ways to produce clean, fresh water, which will ultimately be at the taxpayers' expense.

# OBJECTIVE

for the education and awareness programme were set based on the target group and types of systems installed. These included:

1. Increasing awareness on the proper use and management of water and sanitation systems in rural and urban (formal and informal) areas.
2. Reducing the misuse and wastage of water in urban areas (formal and informal)
3. Reducing the levels of non-payment
4. Promoting water conservation
5. Improving community participation and interaction to ensure sustainability of systems
6. Including water and sanitation aspects into school curricula
7. Preservation and protection of a natural water body.
8. Saving money for our citizens and our community
9. Insuring the Reliability of our Water Supply
10. To sustain the natural water resources to the future generations
11. The changing habits of water consumption help to conserve the natural water
12. Energy conservation
13. Reason of Water Conservation
14. It minimizes the effects of drought and water shortages
15. It guards against rising costs and political conflict
16. It helps to preserve our environment
17. It makes water available for recreational purposes
18. It builds safe and beautiful communities

# Review of Literature

# **1. Jal Shakti Abhiyan: Catch the Rain**

# Ministry of Jal Shakti is taking up a nation-wide campaign “Jal Shakti Abhiyan: Catch the Rain”(JSA:CTR) focusing on saving and conserving rainwater with the theme “Catch the rain, where it falls, when it falls” from 29 March 2022 to 30 November 2022 in the pre-monsoon and monsoon periods of 2022, covering both urban and rural areas of all the districts in the country. ([JALSHAKTI ABHIYAN](https://jsactr.mowr.gov.in/))

# **2.Awareness Programme on Water Conservation and Rainwater Harvesting(ICAR)**

# ICAR-National Rice Research Institute, Cuttack in association with ICAR Eastern Region Pensioners Association (IERPA) has organized an awareness programme under Central Government’s Jal Shakti Abhiyan on 31 July 2019. The theme of the programme was “Water Conservation and Rainwater Harvesting” which was attended by about 200 participants from Institute and Pensioners. Dr. SK Ambast, Director, ICAR-IIWM was invited chief guest of the programme and Dr. H. Pathak, Director, NRRI was Chairman for the session. Dr Narayan Sahu (President, IERA), Sh. SK Nayak (Working president, IERPA), Er. B. Mohapatra and Sh. N. Gupta have also participated in the programme from Pensioners side along with others. ([ICAR AP and WC](https://icar-nrri.in/awareness-programme-on-water-conservation-and-rainwater-harvesting/))

**3.CRS project by nestle India limited**

To help improve access to clean drinking water, the Company began constructing drinking water facilities in schools around all its factories in 1999. The Company constructs clean drinking water facilities in schools directly and through NGO partner Enable Health Society. The Company also conducts periodic water quality checks to ensure clean drinking water, while involving the school and surrounding community through joint ownership of the water tanks, which helps to establish better upkeep and maintenance of the tanks. The Company partnered with the Department of Medical and Health, Government of Rajasthan to offer access to clean drinking water at 12 Public Health Centres where the Company provides clean drinking water through its NGO partner, Enable Health Society as a part of the Adarsh Public Health Center Yojana established by the Government. Till the year 2018, the Company has constructed over 260 water tanks across 7 states benefitting more than 136,800 students. The Company conducts Water Awareness Programs aimed at ensuring hygienic and sustainable water use, reaching out to over 112,700 students. ([Nestle](https://csrbox.org/India_CSR_Project_Nestle-India-Limited-Clean-Drinking-Water-and-Water-Awareness-Programs-Delhi_10510))

**4. National Institute of Hydrology, Roorkee(Awareness programme)**

Awareness Activity on ‘Water Conservation and Environment’ for the School Children under ‘75th Azadi Ka Amrit Mahostav’ organized on 23-02-2022 at Jain Inter College, Sherpur, Roorkee. Debate Competition on ‘Water Conservation and Security’ for the School Children under ‘75th Azadi Ka Amrit Mahostav’ organized on 22-11-2021 at Scholars Academy, Roorkee. Awareness Activity on ‘Water Conservation and Security’ for the School Children under ‘75th Azadi Ka Amrit Mahostav’ organized on 17-11-2021 at Govt. Higher Secondary School, Bharapur, Haridwar. Debate Competition on ‘Water Conservation and Security’ for the School Children under ‘75th Azadi Ka Amrit Mahostav’ organized on 08-09-2021 at Arya Kanya Inter College, Roorkee. Workshop on “Climate change impact and Adaptation in the Water sector in India'' organized at NIH, Roorkee on October 25, 2021. Brainstorming Workshop on “Preparation of Guidelines for Management of Glacial Hazards & Risks especially GLOF & LLOFs” jointly with NDMA, Delhi during June 23-24, 2020 (Online). Brainstorming Session on “Perspectives on Water Management in India and future directions” on 15th December, 2018 on the occasion of Foundation Day of NIH. Modellers Meet during 26-27 Sep., 2018 at New Delhi under NHP Brainstorming Session on "From Drought Research to Decision-Making: Experiences from the UK (and beyond)" by Dr Jamie Hannaford, CEH, Wallingford, UK on May 1st, 2018, in society room of NIH, Roorkee. Two days Exhibition on “The river Ganga: Iconic Water Machine” organized by Columbia Global Centre, Mumbai during 25-26 April, 2018 at NIH Roorkee.

One day Stakeholder's Brainstorming Session on “Integrated Water Resources Management (IWRM) project on Tawi Catchment" on April 16th, 2013 at WHRC, Jammu. Management of Financial and Administrative Workflow’ March 13, 2013. RCC and Stakeholders’ Meeting for Pilot Basin Studies on Tawi River at WHRC, Jammu on 05/09/2012. ([NIH Roorkee](http://nihroorkee.gov.in/scientific-divisions/water-resources-systems/awareness-programme))

# **5. Jeevika plan for small and marginal farmers**

The Indian meaning of Jeevika is Water. The main objectives of this project were to harness the untapped perennial sources and thereby increasing the irrigation potential through innovative water harvesting structures, to promote efficient water use for irrigation by means of micro irrigation-drip method. To create livelihood opportunities for small and marginal farmers of the district by following an integrated farming system approach, to mobilize masses for larger participation in water conservation in the district. ([JEEVIKA](https://www.jeevika.org.uk/))

**6. JALDOOT**

Several efforts are being made to ensure availability and supply of adequate water in all parts of the country. Since the groundwater level is decreasing significantly in many parts of the country due to continuous groundwater withdrawal, it becomes important that we can constantly monitor its impact, so that we can improve the groundwater level by making the right plan. Systematic measurements of the existing depth of groundwater level on a broad basis are necessary to improve groundwater level. Realizing this need, the Ministry of Rural Development and the Ministry of Panchayati Raj, Government of India have jointly developed an App “Jaldoot App” for measuring the water level in a Gram Panchayat through 2-3 selected open wells.([JAL DOOT](https://mnregaweb4.nic.in/jaldootweb/Home.aspx))

**7. Department of Drinking Water and Sanitation**

The Department of Drinking Water and Sanitation provides technical and financial assistance to the States to provide safe and adequate drinking water to rural India with focus on service delivery. The Department’s Centrally Sponsored Scheme, the National Rural Drinking Water Programme (NRDWP),was restructured and subsumed into Jal Jeevan Mission (JJM) to provide Functional Household Tap Connection (FHTC) to every rural household i.e., Har Ghar Jal, by 2024. The kinds of works/ schemes which are proposed to be taken up under JJM include In-village water supply (PWS) infrastructure for tap water connection to every household; reliable drinking water source development/ augmentation of existing sources; transfer of water (multi-village scheme; where quantity & quality issues are there in the local water sources); technological intervention for treatment to make water potable (where water quality is an issue, but quantity is sufficient); retrofitting of completed and ongoing piped water supply schemes to provide FHTC and raise the service level; grey water management and capacity building of various stakeholders and support activities to facilitate the implementation. ([DDWS](https://jalshakti-ddws.gov.in/)**)**

# Research Design /Methodology

Category based water awareness programme :-

In this programme we are going to make an application interface in which we are going to categorize citizens on the basis of their age, profession etc.

On the basis of the categories we will implement the awareness programme accordingly.

Citizens are categorised into following categories on the basic of the below facts:

1. Individual Based Model :-

In this model people are categorized according to their age.

|  |  |  |
| --- | --- | --- |
| Level | Age | Content Type |
| Level 1 | 5-10 years | Rhymes and Animated Videos |
| Level 2 | 11-18 years | Memes, animated clips, Short videos |
| Level 3 | 19-25 years | Memes, short lectures, |
| Level 4 | 26-60 years | Memes, documents, literatures |
| Level 5 | 60+ years | Short videos related to mythology domain |

1. Sector Based Model :- In this model the awareness will be implemented on the basis of the type of sectors.

|  |  |
| --- | --- |
| Sector | Content Type |
| Agriculture | Agricultural based guideline material |
| Industrial | Industrial based guideline material |
| Service Sector | Service based guideline material |
| Unidentified | Guideline material accordingly |

# Proposed Method

1.Mobile Application

2.Street theatre: Street theatre is used regularly to explain and demonstrate the correct use of water and sanitation systems, hygiene, and pollution. These street theatres have been carried out at taxi ranks, shopping centre, clinics, hospitals, councilor ward meetings and schools.

3.Schools programme

4.Workshops and community groups

5. Movie theatre :- awareness short videos before the start of the movie

6. Sustainability 🡪

It is important that the programme is sustainable and these aspects have been taken into account in the development and implementation of the education and awareness practices. Social, economic, environmental, and cultural sustainability have been addressed. All communities have been targeted with the programmes with a focus on poor communities, women, children (schools) and educators. Continuous feedback is sought and programmes are re-evaluated on a regular basis. Investment in education material is recovered through the savings made in the reduction in water use, illegal connections and an increase in revenue from previously non-paying consumers. Through increased awareness and improved practices, pollution of rivers and land has decreased. The traditional beliefs and indigenous knowledge were incorporated into all educational material developed to ensure acceptance by the targeted communities.

technical an Diagnostic Test\_ Re-take (Cognitive and Technical)