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SKR GOVTNMENT DEGREE COLLEGE
GUDUR

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Certificate

SKR GOVERNMENT DEGREE COLLEGE, GUDUR
DEPARTMENT OF CHEMISTRY

Class: II B.Sc (MZC)

Register No:203129004

CERTIFIED THAT THIS IS THE BONAFIDE RECORD OF COMMUNITY SERVICE PROJECT (CSP) WORK DONE IN WATER FACILITIES AND DRINKING WATER AVAILABILITY AT GANDHI NAGAR, GUDUR, GUDUR MANDAL. BY THE CANDIDATE B.NEERAJA.
B.SC II YEAR/ IV SEMESTER, SKR GDC, GUDUR DURNING THE YEAR 2021-2022.


Mentor


Head of the Institutions
PRINCIPAL
S.K.R. Govt. Degree College
GUDUR - 524 101.
Tirupati Dist.

Submitted for the Community Service Project in Water Facilities
and Drinking water availability at GANDHI NAGAR, GUDUR Mandal.

Valued by

1. 

2. G. Jani Vani .

DECLARATION

I B.Neeraja, B.Sc II Year/ IV Semester, Hereby declare that the project work entitled 'WATER FACILITIES AND DRINKING WATER AVAILABILITY' is a project report of the work done by me under the guidance of **BALABHADRA KRUPA KARUNA VANI**, Lecturer in **CHEMISTRY**. This project work is submitted in partial fulfillment for CBCS (4 years degree). The result embodied this thesis have not been submitted to any other college/Institute.

B. Neeraja

B.Neeraja

B.Sc II Year/ IV Semester
SKR GDC, Gudur.

ACKNOWLEDGEMENT

I would like to express my special thanks of gratitude to my **College Principal Sri Paleti Venkateswarlu** as well as our mentor **Balabhadra Krupa Karuna Vani, Lecturer in Chemistry** who gave me this opportunity to do this wonderful Community Service Project (CSP) on the topic **Water Facilities and Drinking water availability** which also helped me in doing a lot of research and I came to know about so many new things, I really thankful to them.

Secondly, I would also like to thank my **Dear friends** who helped me a lot in finishing this project within time.

THANKS ONE AND ALL.

QUESTIONNAIRE

Below is the Questionnaire format

SKR GOVERNMENT DEGREE COLLEGE, GUDUR .

COMMUNITY SERVICE PROJECT .

TOPIC: WATER FACILITIES AND DRINKING WATER AVAILABILITY.

Name of the student conducting survey:.....

Class:.....Group.....

Regd No.....Mobile number.....

Mentor's Name.....

1. Name:
2. Father's Name:
3. Door No:
4. Village:
5. Marital Status_Married/Unmarried:
6. Spouse Name:
7. Social category:
8. Occupation:
9. Type of family:Nuclear/combined:
- 10.Number of Family Members:
- 11.Nature of House:
- 12.Do you have Ration card?
- 13.Do you have Cooking gas?
- 14.Do you have Television?
- 15.Do you have Refrigerator?
- 16.Do you Basic Mobile/Smart Phone?

17. Do you have Motor cycle /Four Wheeler?
18. Do you have sanitation facility?
19. Do you have Bore well for water?
20. What kind of water you use for cooking?
21. What kind of water you use for drinking?
22. How is the availability of Municipal water?
23. How long you get Municipal water?
24. How you store water in your house?
25. Do you have Agricultural land?
26. How do you manage to water your Agricultural land?
27. Is water you are getting for agriculture is sufficient?
28. How do you store water for your agriculture purpose?
29. How long you have to go to fetch water?
30. Any side affects because of Municipal water?
31. Are there any Impurities in Municipal water?
32. How many water tanks are there in your colony?

Signature of the Mentor

Signature of the Student

House Holder Signature and Name with date



 **GPS Map Camera**

Gudur, Andhra Pradesh, India

4RJM+G9W, Gandhi Nagar, Gudur, Andhra Pradesh 524101, India

Lat 14.131686°

Long 79.833365°

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GPS Map Cam



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GANDHI NAGAR

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Pradesh 524101, India

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Gudur, Andhra Pradesh, India

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Andhra Pradesh 524101, India

Lat 14.131313°

Long 79.833503°

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DATA ANALYSIS

Total number of households-20

Q1.Number of Houses having public Bore-wells-5

Q2.Number of Houses having Municipal water supply-20

Q3. Number of Houses having own bore wells-0

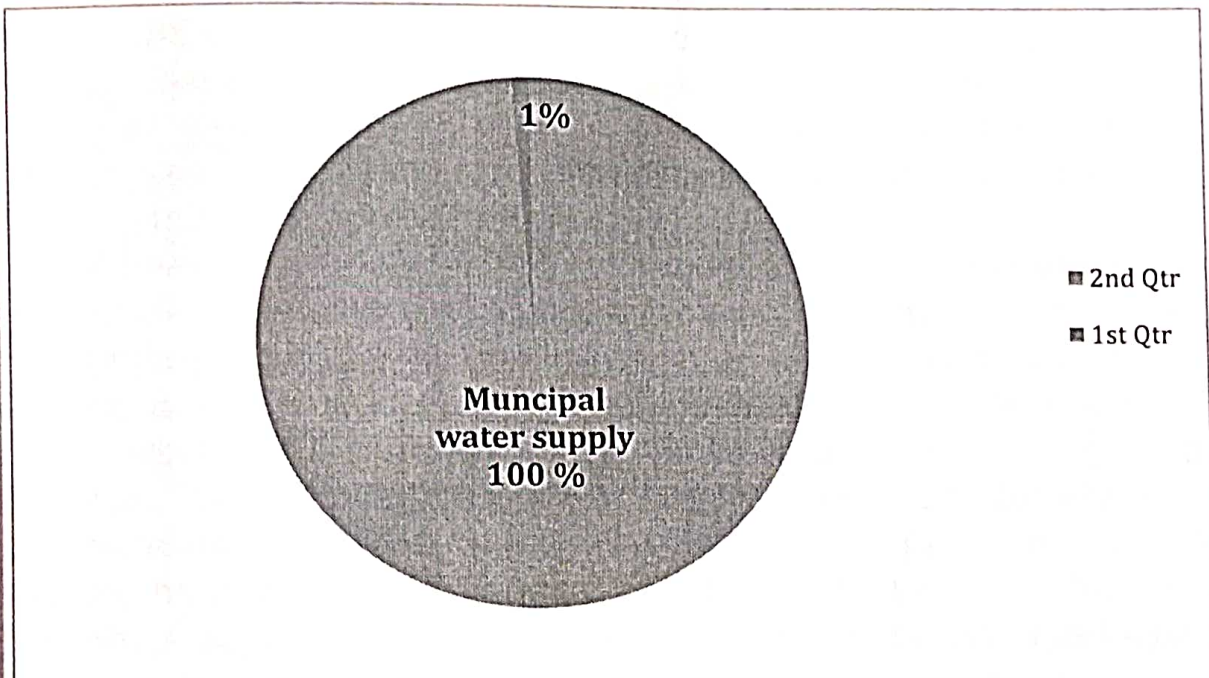
Q4.Number of Houses using Mineral water for Drinking purpose-19

Q5.Number of Houses using Municipal water for Drinking purpose-5

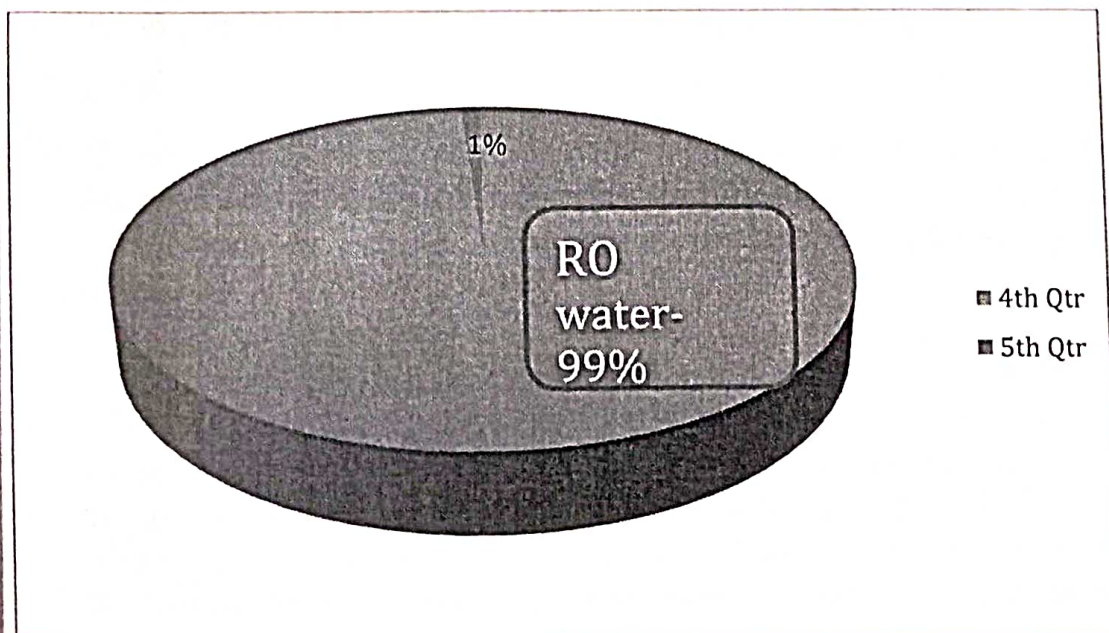
Q6.Number of Houses havin Agricultural land-2

Q7.Number of Land holders having own bore-wells in their field-0 and the remaining are using Telangana canal water.

DATA ANALYSIS –PIE-CHARTS



Pie-Chart showing the number of borewells in Percentage(20).



Pie chart showing the type of water used for drinking by the people(20)

Pie chart showing the percentage of own borewells in the Agricultural fields(0)

CONCEPTUAL MATTER

Rural drinking water supply is a persistent public health challenge in India, but with shifting contours. Pathogenic contamination of surface waters and water in shallow aquifers was sought to be addressed through massive tube-well programs in the 1980s and 1990s.

However, chemical contamination of water in deeper aquifers is now widespread, often associated with irreversible public health damage, and is forcing yet another rethink.

While government policies are still focused on the increasingly scarce "alternative safe sources," there is growing realization of the need to purify water for domestic consumption, even in rural areas. However, access to safe drinking water is largely seen as a government responsibility. But, barring Gujarat, large-scale rural drinking water schemes based on regional water supply have not materialized.

Decentralized solutions face challenges of appropriate technology, management capacity, financing options, and environmental impacts. Models of public-private partnerships, community-managed systems, and social enterprises have emerged under the circumstances.

These models are explored, with the help of case studies, in this chapter to understand what needs to be done, and by whom, for a sustainable and scalable solution.

Disinfection of drinking water supplies with various disinfectants has been integral for maintaining high microbial quality of drinking water.

Disinfectant inactivates disease-causing organisms and effectively reduces waterborne diseases to ensure safe consumption of water. However, an unintended chemical reaction between disinfectants and naturally occurring organic and inorganic precursors or anthropogenic compounds in the source waters results in the generation of a number of disinfection by-products (DBPs) including trihalomethanes, haloacetic acids, and haloacetonitrile in drinking water. Due to potential adverse health effects (from cancer induction to birth defects, etc.) posed by these geno- and cytotoxic DBPs on exposure, they have received great concern worldwide and thus are regulated by the United States Environmental Protection Act in the water industry. The objective of this chapter is to provide an insight into the apprehension of DBP generation in drinking water, occurrence, types of DBPs, and associated adverse health effects.

A safe water supply is the backbone of a healthy economy, yet is woefully under prioritized, globally.

It is estimated that waterborne diseases have an economic burden of approximately USD 600 million a year in India. This is especially true for drought- and flood-prone areas, which affected a third of the nation in the past couple of years.

Less than 50 per cent of the population in India has access to safely managed drinking water. Chemical contamination of water, mainly through fluoride and arsenic, is present in 1.96 million dwellings. Excess fluoride in India may be affecting tens of millions of people across 19 states, while equally worryingly, excess arsenic may affect up to 15 million people in West Bengal, according to the World Health Organization.

Moreover, two-thirds of India's 718 districts are affected by extreme water depletion, and the current lack of planning for water safety and security is a major concern. One of the challenges is the fast rate of groundwater depletion in India, which is known as the world's highest user of this source due to the proliferation of drilling over the past few decades. Groundwater from over 30 million access points supplies 85 per cent of drinking water in rural areas and 48 per cent of water requirements in urban areas.

All children have the right to clean water and basic sanitation, as stated in the Convention on the Rights of a Child. The ultimate aim of UNICEF's work in water, sanitation and hygiene (WASH) is to ensure that all children fulfill this right, and that no child is left behind.

When families do not have a safe and reliable water source, preferably direct to their home, then it is often women and children that are responsible for collecting water.

School attendance in India decreases when children are required to spend hours collecting water. A 22 per cent increase in school drop out rates has been reported in drought-affected states. Close to 54 per cent of rural women – as well as some adolescent girls - spend an estimated 35 minutes getting water every day, equivalent to the loss of 27 days' wages over a year.

(Source: Analysis of the situation of children, adolescents and Women in India 2016) In 2015, India achieved 93 per cent coverage of access to improved water supply in rural areas. However, with the shift from the Millennium Development Goals (MDGs) to the Sustainable Development Goals (SDGs) the new baseline estimates that less than 49 per cent of the rural population is using safely managed drinking water (improved water supply located on-premises, available when needed and free of contamination).

Supporting *Swajal*: Providing clean water to every child in India

In 2019, after Prime Minister Modi's re-election, the Ministry of Drinking Water

and Sanitation (MDWS) was restructured under a new ministerial organogram, under which the MDWS's mandate became one of two pillars under a new ministry named Jal Shakti (meaning "power of water").

While sanitation remains a priority the focus is on the provision of 24/7 piped water supply is on the rise. UNICEF has been the 'development partner of choice' for the Government of India and has played a key role in the revamping and implementation of the Government of India's flagship National Rural Drinking Water Programme.

Thanks to UNICEF's continued advocacy, technical assistance and engagement with Ministry of Jal Shakti, safe drinking water and sanitation remain high on the agenda of India's new government. UNICEF is currently working closely with the Ministry of Jal Shakti on the Jal Shakti Abhiyan and Jal Jeevan Abhiyaan.

UNICEF focuses on community-managed drinking water, including water safety and security planning, in support of the NRDWP. At the institutional level, UNICEF focuses on developing improved water quality monitoring systems and strengthening operation and maintenance of water supply infrastructures.

One current initiative is *Swajal*, which seeks to enable communities to self-manage safe water sources within their habitations, and is supported by UNICEF through policy development, training of trainers, and communication campaigns.

The Ministry of Jal Shakti launched "*Swajal*" as a pilot project that is designed as a demand-driven programme involving the community to provide sustainable access to safe drinking water to people in rural areas. The *Swajal* programme is empowering communities to plan, design, implement and monitor single village drinking water supply schemes, and organize community ownership for operation and maintenance.

The target population for *Swajal* in 117 aspirational districts across 28 states is about 0.5 million a year.

This Programme has helped in prioritizing integrated water safety planning, behaviour change and community participation in most deprived aspirational districts, and Water Quality Monitoring (WQM). This contributed to achieving 18.6 million people gaining access to safe drinking water.

UNICEF is supporting the Ministry of Jal Shakti in strengthening the Swajal and the National Rural Drinking Water Programme

(NRDWP) programme at national and in 14 states. UNICEF will be contributing to reaching about two million population over four years.

UNICEF's technical assistance has focused on facilitating the development of national-level guidelines for implementation of *Swajal* focusing on community participation, technology options, operation and maintenance.

The guidelines give specific emphasis on women participation in the various stages of planning, implementation and management of schemes. For example, the local person responsible for regular operation and minor repairs is preferably a woman from the village who will be trained and engaged through deliverable-based payments.

The learnings from *Swajal* will be upscaled to NRDWP strengthening the community management aspects along with technological options. UNICEF will strengthen the ongoing support to the Ministry of Jal Shakti for community management of water supplies.

The NRDWP, with its revised programmatic approach, has focused on developing the capacity building, which included the development of training content and support in delivering the training. UNICEF is bridging the gaps in the areas of human resources and institutional capacity, technical skills development and community management and behaviour change, ensuring participation of women.