



Program Book

Community Service Project

AP STATE COUNCIL OF HIGHER
EDUCATION

(A STATUTORY BODY OF GOVERNMENT OF ANDHRA PRADESH)

**Program Book
for
Community Service Project**

Name of the Student: S. Prakash

Name of the College: Mrs. A.V.N. college

Registration Number: 720130805204

Period of CSP: From: 13/08/22 To: 16/9/22

Name & Address of the Community/Habitation:

Akkayya palam, visakapatnam.

Community Service Project Report

Submitted in accordance with the requirement for the degree of

Name of the College: Mrs. AVN college
Department: B.Sc statistics
Name of the Faculty Guide: ch. Mallika
Duration of the CSP: From 13/6/22 To 10/9/22
Name of the Student: S. Prakash
Programme of Study: Water pollution
Year of Study: 2020-2023
Register Number: 720130805204
Date of Submission:

Student's Declaration

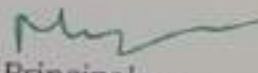
I, S. Prakash a student of Community Service Program, Reg. No. 20130805204 of the Department of Statistics Mathematics, Mrs. AVN College do hereby declare that I have completed the mandatory community service from 23/12/22 to 16/1/23 in (Name of the Community/Habitation) under the Faculty Guideship of Ch. Mallika (Name of the Faculty Guide), Department of Statistics in Mrs. AVN College Mathematics

(Signature and Date)

Endorsements

Faculty Guide Ch. Mallika

 R. GANDHI, M.Sc, M.Phil
Head of the Department
Department of Mathematics & Statistics
Mrs. AVN College, Visakhapatnam


Principal
MRS. A.V.N. COLLEGE
VISAKHAPATNAM

Certificate from Official of the Community

This is to certify thatS. Prakash..... (Name of the Community Service Volunteer) Reg. No. 720130805204 of Mrs. AVN College (Name of the College) underwent community service in (Name of the Community) from 13/8/22..... to16/9/22.....

The overall performance of the Community Service Volunteer during his/her community service is found to be ...Good..... (Satisfactory/Good).

Authorized Signatory with Date and Seal

ACKNOWLEDGEMENTS

It is really matter of pleasure for me to get an opportunity to thank all the persons who contributed directly or indirectly for the successful completion of the project report "WATER POLLUTION" with special reference to Nax Junction, Dumplavampalem Visakhapatnam District of andhra pradesh.

I wish to express my gratitude to all the members of Dumplavampalem colony for giving the proper responses which has been instrumental in completion of the project. I am thankful to my mentor S. JYOTHI lecture in statistics M.S.R.S SIDDARDHA DEGREE Visakhapatnam for her support and encouragement throughout the tenure of the project.

I would also like to extend my gratitude to the principal for providing me all the facilities that are required.

In the end, I wish to thank my parents as well for their support and encouragement with out which I could not have completed this project in the limited time frame.

CHAPTER 1: EXECUTIVE SUMMARY

The community service report shall have only a one-page executive summary. It shall include a brief description of the Community and summary of all the activities done by the student in CSP and five or more learning objectives and outcomes.

Water pollution is the contamination of water sources by substances which make the water unusable for drinking, cooking, cleaning and other activities. Pollutants include chemicals, trash, bacteria and parasites. All forms of pollution eventually make their way to water.

In my survey I have observed that many of the people are affected with water diseases like diarrhoea, typhoid etc. To control this situation we have to take some objectives. The Water Act 1974 is enacted with the object of prevention and control of pollution in India.

Objectives :-

- * Identify the ways in which human waste water can cause water pollution.
- * Identify contaminants that are non-chemical pollutants.

Outcome :-

- * Facility should be increased.
- * Awareness should be created.

CHAPTER 2: OVERVIEW OF THE COMMUNITY

- About the Community/Village/Habitation including historical profile of the community/habitation, community diversity, traditions, ethics and values.
- Brief note on Socio-Economic conditions of the Community/Habitation.

Here Houses are placed on mountain the people are too friendly with each other.

The houses are placed with in no place there are street lights for each line of the area people are using municipal water for drinking and other use.

Some people are buying water cans for drinking purpose. The roads are very clean and clear. Some places are filled with dust and waste of houses which is mixed with drinking water.

Some people are using ground water for drinking. The water of the area is not purified. People are suffering from some skin diseases, throat diseases and long term diseases.

CHAPTER 3: COMMUNITY SERVICE PART

Description of the Activities undertaken in the Community during the Community Service Project. This part could end by reflecting on what kind of values, life skills, and technical skills the student acquired.

The Activities undertaken in the Community during the Community service project.

- (1) Survey on socio economic
- (2) House hold survey.
- (3) Report Writing
- (4) Awareness created
- (5) Awareness programme
- (6) Submit the project
- (7) Report the project.

Values, Life skills, And Technical skills:

1. Team work and problem solving skills.
2. The ability to communicate effectively with others.
3. The collaborative nature of project also reinforces the social and emotional learning programs.
4. People in learning environments have a wider and more diverse social circle.
5. Those whose learn readily and continually are better able to pass learn along what they have learned and act.
6. When people learn they gain confidence for trying new things and stretching themselves.

ACTIVITY LOG FOR THE FIRST WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day - 1	Few houses are using municipal water.	Drinking municipal water	
Day - 2	Many houses getting water from bore	Facilities should be increased	
Day - 3	Few houses getting water from outside but many people are getting road water.	Abscesses should be created here	
Day - 4	Many people are drinking mineral water due to low water quality	Quality of water should be increased	
Day - 5	Some municipal water is having repellents in water	Facilities should be increased	
Day - 6	Many people are drinking bore water and using it for cooking too.	Water supply should be increased	

WEEKLY REPORT

WEEK - 1 (From Dt. 13/8/22 to Dt. 19/8/22...)

Objective of the Activity Done:

Detailed Report:

In ----- the water supply is too low some people are getting water with mixed water pollutants pesticides and soil in the water. The water is tested for drinking purpose

people are suffering from joint pain, fevers, colds, cough and some long term diseases. Some people are not getting required amount of water for drinking and usage.

In the colony, the water quality is bad and most of the people are susceptible of diseases they are getting from drinking this type of water.

Water with bad quality - Kidney diseases and liver problem are noticed in the people who are above 60.

ACTIVITY LOG FOR THE SECOND WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day - 1	In ----- few people are suffering from water diseases	Awareness should be provided	
Day - 2	Few people are suffering from joint pain and long term diseases	Facilities should be increased.	
Day - 3	In ----- some people are getting mud water with soil	Water supply should be increased.	
Day - 4	In ----- people are getting water with mixed pesticides	Quality of water should be increased	
Day - 5	Some people are drinking bore water due to low water supply	Water supply should be increased.	
Day - 6	many people are not getting water from municipal corporation	supply of water should be increased.	

WEEKLY REPORT

WEEK - 2 (From Dt 20/8/22 to Dt 26/8/22)

Objective of the Activity Done:

Detailed Report:

Some people are getting water from outside due to mixing of drinking water with drainage water pollution they are getting low quality water. Some people are depending on ground water due to low quality of water.

In some season people are drinking water with mud and dust particles people are suffering from fever, joint pain and some kidney problems.

Finally there is no proper water supply, quality of water is too low people are unaware of disease they are getting. Some people are not using municipal water and they are depending on ground water for drinking.

20% percent of people are working, so they are not getting water from municipal corporation they are getting water from outside and for drinking they are getting mineral water.

ACTIVITY LOG FOR THE SECOND WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day - 1	Many house holders are suffering from joint pains and long term diseases.	Quality should be increased.	
Day - 2	Few people are drinking bore water and using for cooking	Awareness should be created in people	
Day - 3	In people are getting water with mixed putrids	unaware of the problems from the water	
Day - 4	many people drinking water with mixed bleaching powder	Quantity of mixed bleaching powder should be decreased	
Day - 5	Most of the people are getting water from outside due to water quality	Quality of water should be increased	
Day - 6	Few people are drinking bore water and some suffering from joint pains.	Water supply should be increased	

ACTIVITY LOG FOR THE THIRD WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day - 1	Many house holders are suffering from joint pains and long term diseases	Quality should be increased.	
Day - 2	Few people are drinking bore water and using for cooking	Awareness should be created in people	
Day - 3	In people are getting water with mixed pesticides	awareness of the problems from the water.	
Day - 4	many people drinking water with mixed bleaching powder	Quantity of mixed bleaching powder should be decreased	
Day - 5	Most of the people are getting water from outside due to water quality.	quality of water should be increased	
Day - 6	Few people are drinking bore water and some suffering from joint pains	Water supply should be increased.	

WEEKLY REPORT

WEEK - 3 (From Dt. 27/8/22 to Dt. 2/9/22)

Objective of the Activity Done:

Detailed Report:

Agricultural, medical and pesticides waste is mixed with local drinking water. Because of this they are getting water from outside like mineral water etc. Water quality is also very low.

In simple words, people are getting water with mixed bleaching powder with in high quantity. Due to this some people are getting long term diseases fever, cold, liver problems, kidney problem etc..

An _____ people are unaware of diseases they are getting. Quality of water is too low. The water supply is low and people with large family are not getting required amount of water. People are buying water from outside and is with high amount.

ACTIVITY LOG FOR THE FOURTH WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day - 1	Most of the peoples are getting mineral water in	people in using mineral water to drink	
Day - 2	Few people are drinking municipal water in their areas.	Facilities should be created.	
Day - 3	Some people are drinking under ground water and using it for cooking purposes.	Awareness should be created in	
Day - 4	Few people are affordable to get filter water	people are in using filter.	
Day - 5	In their are drinking polluted water	Some people are suffering with diseases due to drinking of pollutant	
Day - 6	Some people are affordable to get filter water.	people are of possible to drinking municipal water.	

WEEKLY REPORT

WEEK - 4 (From Dt. 3/9/22 to Dt. 9/9/22)

Objective of the Activity Done:

Detailed Report:

In

People are drinking municipal water some people are drinking mineral water and few people are drinking ground water by heating.

They are not getting proper drinking water. polluted water mixed with the drinking water some people are getting water with mud particles which is not used for drinking by for normal usage.

Water supply is not supplied properly in required amount of time people are suffering with some skin diseases throat diseases and some long term diseases.

people are not aware of diseases they are getting from drinking the polluted water.

ACTIVITY LOG FOR THE FIFTH WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day - 1	Most of the people are drinking municipal water and suffering joint pains	An awareness should be created.	
Day - 2	many people are getting low water supply and getting water from outside	water supply should be increased	
Day - 3	most of the people are drinking mineral water and having good water facilities	water supply should be increased	
Day - 4	many people are getting municipal water with high mixed bleaching powder.	people unaware of diseases they are getting	
Day - 5	Few people drinking bore water and using it for cooking too.	Awareness should be created	
Day - 6	People getting joint pains and some long term diseases due to low water quality.	Awareness should be created and quality of water should be increased	

WEEKLY REPORT

WEEK - 5 (From Dt. 10/9/22 to Dt. 16/9/22)

Objective of the Activity Done:

Detailed Report:

In

They are not using municipal water and they are getting water from outside like bore water mineral water and some quality water.

The quality of water is not good, some pollutants are mixed with drinking water it is also in found that some residential areas NAD Junction

Suburjupalem including a couple of slum areas like poor market area contains aquifer with high degree of hydrogeologic vulnerability.

most of the sectors of the NAD colony and the residential areas in the study area have a high degree of vulnerability in the range $120 < \text{or DRASTIC}$
 < 160 Due to this people are getting some health diseases.

CHAPTER 5: OUTCOMES DESCRIPTION

Details of the Socio-Economic Survey of the Village/Habitation. Attach the questionnaire prepared for the survey.

1. Name of the person?
2. Name of the village (or) town?
3. Gender and age of the person?
4. Type of Family (Nuclear / Joint / extended)
5. What is your Post number.
6. Which sources of drinking water are available in your neighbourhood?
7. Which sources of does your house hold use?
8. Is their frequency sufficient for your needs?
9. Any water born disease in your house.
10. Is any of your family members suffering from joint points
11. Name of the medicine frequently used in the family
12. Quality and drinking water source
13. How is drinking water purified?
14. What impact do humours have on the aquatic life zones?
15. Water born disease is common in the last few years.

Describe the problems you have identified in the community

Contaminated water and poor sanitation are linked to transmission of diseases such as cholera, diarrhoea, dysentery, hepatitis A, typhoid and polio. Absent, in a desolate or inappropriately managed water and sanitation services expose individuals to preventable health risks. This is particularly the case in health care facilities where both patients and staff are placed at additional risks of infection and disease when water, sanitation and hygiene services are lacking. Globally 15% of patients develop an infection during a hospital stay, with the proportion much greater in low income countries.

Inadequate management of urban industrial and agricultural waste water means the drinking water of hundreds of millions of people is dangerously contaminated or chemically polluted. Natural presence of chemicals particularly in ground water can also be of health significant including arsenic and fluoride, while other chemicals, such as lead may be elevated in drinking water as a result of leaching from water supply components in contact with drinking water.

Short-term and long term action plan for possible solutions for the problems identified and that could be recommended to the concerned authorities for implementation.

Possible solution for the problem, identified

- > Waste water treatment
- > faster waste reduction
- > water conservation
- > Install a water efficient toilet in your home.
- > septic tanks
- > Avoid using the toilet as a waste basket
- > storm water management.
- > green agriculture.

Solutions :-

- > Before raw sewage can be safely released back into the environment it needs to be treated correctly in a water treatment plant. In a water treatment plant, sewage goes through a number of chambers and chemical processes to reduce the amount and toxicity of the waste.
- > The final stage of treatment is the tertiary phase. This stage must be done before the water can be released. Almost all solid particles are removed from the water and chemical and sometimes additives are supplied to get rid of any left over.

Report of the mini-project work done in the related subject w.r.t the habitation/village.

A mini-project work in the related subject w.r.t the habitation/village. (For ex., a student of Botany may do a project on Organic Farming or Horticulture or usage of biofertilizers or biopesticides or effect of the inorganic pesticides, etc. A student of Zoology may do a project on Aquaculture practices or animal husbandry or poultry or health and hygiene or Blood group analysis or survey on the Hypertension or survey on the prevalence of diabetes, etc.

The Report shall be limited to 6 pages.

Water pollution :-

Water pollution (or aquatic pollution) is the contamination of water bodies usually as a result of human activities, so that it negatively affects its uses. Water bodies include lakes, rivers, oceans, aquifers, reservoirs and ground water. Water pollution results when contaminants are introduced into these water bodies. Water pollution can be attributed to one of four sources: sewage discharge, industrial activities, agricultural activities, and carbon runoff including stormwater. It can be grouped into surface water pollution & groundwater pollution. For example, releasing an inadequately treated waste water into the natural water can lead to degradation of these aquatic & ecosystems. Water pollution can also lead to water borne diseases for people using pollution.

Water for drinking, bathing, washing or the irrigation water pollution reduces the ability of the body of water to provide to ecosystem services (such as drinking water) that it would be otherwise provide.

Sources of water pollution are either point sources (or) non-point sources. Point sources have one identifiable cause, such as a storm drain, a wastewater treatment plant (or) an oil spill. Non-point sources are more diffuse such as agriculture. Runoff pollution is the result of the cumulative effect when low pollution may take the form of toxic substances (eg. oil, metals, pesticides, pesticides, persistent organic pollutants, industrial waste products), beneficial conditions (eg. changes of pH, hypoxia or anoxia, increased temperatures, excessive turbidity, unpleasant taste or odor and change of salinity) or pathogenic organisms. Contaminants, many include organic and inorganic substances heat can also be a pollutant and this is called thermal pollution. A common cause of the thermal pollution is the use of water as a coolant by power plants and industrial manufacturing.

Control of water pollution requires appropriate infrastructure and management plans as well as legislation. Technology solutions can include improving sanitation, sewage treatment, industrial water waste treatment, agricultural water waste treatment, erosion control, sediment control and control of urban runoff (including stormwater management). Effective control of urban runoff includes reducing speed and quantity of runoff.

CONTAMINANTS WITH AN ORIGIN IN SEWAGE

The following compounds can all reach water bodies via raw sewage or even treated sewage discharges:-

- Various chemical compounds found in personal hygiene and cosmetic products
- Disinfection by products found in chemically disinfected by products water (while these are the chemicals can be a pollutant in the water distribution network, they are fairly volatile and therefore not usually found in environmental waters)
- ⇒ Hormones and synthetic materials such as the phytoestrogens that mimic hormones in their action.

→ Insecticides and herbicides, often from agricultural runoff.

Of the water pollution stems from sewage the main pollutants are: suspended solids biodegradable organic matter, nutrients and the pathogenic organisms.

Organic compounds

Organic substances that enter water bodies are often toxic.

→ petroleum hydrocarbons, including fuels (gasoline, diesel, fuel, jet, fuels and fuel oil) and lubricants (motor oil) and fuel combustion products, from oil spills or storm water runoff.

→ Volatile organic compounds, such as improperly stored industrial solvents. problematic species are organochlorides such as polychlorinated biphenyl (PCBs) and tetrachloroethylene, a common solvent. Per and polyfluoroalkyl substances (PFAS) are persistent organic pollutants.

Types of surface water pollution

surface water pollution includes pollution of rivers, lakes and oceans. A subset of surface water pollution is marine pollution which affects the oceans. Nutrient pollution refers to contamination by excessive inputs of nutrients.

Globally about 4.5 billion people do not safely managed sanitation of 2017, according to an estimate by the joint monitoring programme for water supply and the sanitation.

Marine pollution:-

marine pollution occurs when substances used or spread by humans, such as industrial agricultural and residential waste, particles, noise, heat, carbon dioxide or massive populations enter the ocean and cause harmful effects there.

Nutrient pollution:-

Nutrient pollution a form of water pollution refers to contamination by excessive inputs of nutrients.

Thermal pollution:-

Thermal pollution sometimes called thermal enrichment, is the degradation of water quality.

by any process that changes ambient water temperature. Thermal pollution is the cause of a fall in the temperature of a natural body of water caused by human influence.

Biological pollution:

The introduction of aquatic invasive organisms is a form of water pollution as well. It is caused by human influence.

Impacts:-

→ ecosystems:

Water pollution is a major global environmental problem because it can result in the degradation of all aquatic ecosystems, fresh, coastal and ocean waters.

→ Public Health and Water Borne Diseases:

polluted water spreads gastrointestinal diseases and parasitic infections and killed 1.8 million people. These are also referred to as water borne diseases.

→ ocean Acidification:

ocean acidification is another impact of water pollution. ocean acidification is the ongoing decrease in the pH values of the world's oceans caused by the uptake of carbon dioxide.

Ground Water pollution

Ground Water pollution occurs when pollutants are released to the ground and make their way into ground water. This type of water pollution can also occur naturally due to the presence of a mass and unwanted constituent, contaminant or impurity in the ground water in which case it is more likely referred to as contamination rather than pollution.

When these ground waters supplied to people, they get diseases like cholera, diarrhea, joint pain, kidney problem, liver diseases, and throat diseases, skin allergies.

Ground Water pollution poses a hazard to the well being of people and ecosystems. One quarter of the world's population depends on groundwater for drinking.

When polluted water can be tested in many ways the following diagram represent the water pollution test.

CHAPTER 6: RECOMMENDATIONS AND CONCLUSIONS OF THE MINI PROJECT

Recommendations :-

- small water enterprises (swats): employ kiosks to complement piped water supply.
- piped water supply: pilot 2917 water supply initiative and build local capacity.
- Digital Tools: Improve E-governance for V. gov. encouraging digital tools.

CONCLUSIONS :-

only a few of which are discussed here rivers and streams demonstrate some capacity to recover from the effects of water pollutants, but lakes, bays, ponds, sluggish rivers, and oceans have little resistance to

the effects of water pollution

- There is need to identify a water conservation and demand strategy for entire municipality
- There is need for research and development in potential water use saving practices and appropriate technologies.

Student Self-Evaluation for the Community Service Project

Student Name: S. Prakash
Registration No: 720130805204
Period of CSP: From: 13/6/22 To: 16/9/22
Date of Evaluation:
Name of the Person in-charge:
Address with mobile number:

Please rate your performance in the following areas:

Rating Scale: 1 is lowest and 5 is highest rank.

1) Oral communication	1	2	3	4	5
2) Written communication	1	2	3	4	5
3) Proactiveness	1	2	3	4	5
4) Interaction ability with community	1	2	3	4	5
5) Positive Attitude	1	2	3	4	5
6) Self-confidence	1	2	3	4	5
7) Ability to learn	1	2	3	4	5
8) Work Plan and organization	1	2	3	4	5
9) Professionalism	1	2	3	4	5
10) Creativity	1	2	3	4	5
11) Quality of work done	1	2	3	4	5
12) Time Management	1	2	3	4	5
13) Understanding the Community	1	2	3	4	5
14) Achievement of Desired Outcomes	1	2	3	4	5
15) OVERALL PERFORMANCE	1	2	3	4	5

Date:

Signature of the Student

Evaluation by the Person in-charge in the Community/Habitation

Student Name: S. prakash
Registration No: 220130805204
Period of CSP: From: 13/6/22 To: 16/7/22
Date of Evaluation:
Name of the Person in-charge:
Address with mobile number:

Please rate the student's performance in the following areas:

Please note that your evaluation shall be done independent of the Student's self-evaluation

Rating Scale: 1 is lowest and 5 is highest rank

1) Oral communication	1	2	3	4	5
2) Written communication	1	2	3	4	5
3) Proactiveness	1	2	3	4	5
4) Interaction ability with community	1	2	3	4	5
5) Positive Attitude	1	2	3	4	5
6) Self-confidence	1	2	3	4	5
7) Ability to learn	1	2	3	4	5
8) Work Plan and organization	1	2	3	4	5
9) Professionalism	1	2	3	4	5
10) Creativity	1	2	3	4	5
11) Quality of work done	1	2	3	4	5
12) Time Management	1	2	3	4	5
13) Understanding the Community	1	2	3	4	5
14) Achievement of Desired Outcomes	1	2	3	4	5
15) OVERALL PERFORMANCE	1	2	3	4	5

Ch. Mallika
Signature of the Supervisor

Date:

PHOTOS AND VIDEO LINKS

