



# **Program Book**

## **Community Service Project**



**AP STATE COUNCIL OF HIGHER  
EDUCATION**

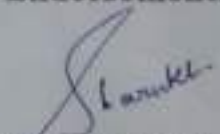
**(A STATUTORY BODY OF GOVERNMENT OF ANDHRA PRADESH)**

### Student's Declaration

I, ~~Harshavardhan~~ <sup>Sri</sup> student of ~~B.Sc.~~ <sup>B.Sc.</sup> Program, Reg. No. ~~720130801023~~ of the Department of ~~Mathematics~~ <sup>Mathematics</sup> ~~Mass.~~ <sup>Mass.</sup> A.V.N. College do hereby declare that I have completed the mandatory community service from ~~19/01/23~~ to ~~19/02/23~~ in Velampeta. (Name of the Community/Habitation) under the Faculty Guideship of MA. Sheila, Sheela (Name of the Faculty Guide), Department of Mathematics in Mass., A.V.N. College

(Signature and Date)

### Endorsements

  
Faculty Guide

Head of the Department

Principal

## ACKNOWLEDGEMENTS

I wish to express My gratitude to those who extended their Valuable Co-operation and Contribution towards the project

I would like to thank My project mentor Mr. Sheik Sharukh sir, Mors. A.U.N College for his Valuable time and Continued Assistance for the Successful Completion of the project.

I would also like to express gratitude to Mr. Sheik Sharukh sir, Mors. A.U.N. College management for facilitating this project and providing his guidance throughout the duration of the project.

I would also like to thank the faculty and staff of the Institute, and all my team members for their support.

## 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.

The stress on our water environment as result of increased industrialization, which aids urbanization, is becoming very high thus reducing the availability of clean water. Polluted water is of great concern to the aquatic organism, plants, humans, and climate and indeed alters the ecosystem. The preservation of our water environment, which is embedded in sustainable development, must be well driven by all sectors. While effective waste water treatment has the tendency of enlarging the water environment, integration of environmental policies into the actor firms core objectives coupled with continuous periodical enlightenment on the present and future consequences of environmental/water pollution will greatly assist in conserving the water environment.

Since water forms a base of the existence of human and living things, its preservation and sustainable availability cannot be overemphasized. The availability of clean water is greatly threatened by various human activities and of interest is pollution which in turn affects the ecosystem and causes various climatic changes. While various waste water treatment methods are being explored by industries and various treatment plants, untreated waste water is still being discharged into the water bodies by some industries.



## 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.

One town also called the "Old Town", is the located in ~~the~~ Visakhapatnam city, India. The area falls under the local administrative limits of Greater Visakhapatnam municipal Corporation.

One town area has more than 300 years of history is British era. the business of whole city was located here including the administration of Vizagapatnam District. There are many old monuments built here like Town Hall Visakhapatnam (1904), Kupam market (1914), Europe's cemetery (1617), Queen Victoria pavilion (1904), St John's Church (1844), Queen Victoria pavilion (1904), St John's Church (1844), Queen Mary's School (1800), Bhagmadina Jaggi (1706), St Aloysius Anglo-Indian High School (1847) and the light house (1903).

The old town area runs from Turner Chantry to End of Visakhapatnam port. It has many historical Educational Institutions These are a so many middle class students are learning education here. The area is Administered by Greater Visakhapatnam municipal Corporation.

### 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.

## Activities Undertaken in the Community during the Community Service Project.

- \* Study On Water Pollution
- \* Preparing Questionnaire
- \* Study about the location to be ~~Survey~~ Survey
- \* Survey with our Questionnaire
- \* Analysing the Survey data
- \* Finding Solutions for the problem
- \* Explaining the people how to solve these water problem

ACTIVITY LOG FOR THE FIRST WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day - 1 29/8/22	Few houses are using Municipal water	Drinking Municipal water	
Day - 2 30/8/22	Many houses getting water from bore	Facilities should be increased	
Day - 3 31/8/22	Few houses getting water from outside but many people are getting mud water	Awareness should be created here	
Day - 4 1/9/22	Some Municipal water is having repellents in water	Facilities should be increased	
Day - 5 2/9/22	Many people are doing mineral water due to low water quality	Quality of water should be increased	
Day - 6 3/9/22	Many people are drinking bore water and using it for cooling too	Water supply should be increased.	

## WEEKLY REPORT

WEEK - 1 (From Dt. 29/12/22..... to Dt. 31/12/22.....)

Objective of the Activity Done:

Detailed Report:

In Velampeta Colony the water supply is too low. Some people are getting water with mixed water pollutants. Pesticides and soil in the water. The water is heated for drinking purpose.

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

In this colony, the water quality is low. And most of the people are getting from drinking this type of water. Water with bad quality. Kidney diseases and liver problems are serious 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 5/9/22	In Velampeta colony Colony few people are suffering from water diseases	Awareness should be provided.	
Day - 2 6/9/22	Few people are suffering from joint pains and long term diseases	Facilities should be increased	
Day - 3 7/9/22	In Velampeta colony Some people are getting mud water with soil	Water supply should be increased	
Day - 4 8/9/22	In Velampeta colony <del>for</del> Some people are getting mud with mixed pesticides	Quality of water should be increased	
Day - 5 9/9/22	Some people are drinking bore water due low water supply	Water supply should be increased	
Day - 6 10/9/22	Many people are not getting water from Municipal Corporation	Supply of water should be increased.	

## WEEKLY REPORT

WEEK - 2 (From Dt. 2/9/22..... to Dt. 10/9/22....)

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 rainy season people are drinking water with mud and dust particles people are suffering from fever joint pains and some kidney problems

Finally, there is no proper water supply, quality of water is too low people are unaware of diseases 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 THIRD WEEK**

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day - 1 12/9/22	Many house holders are suffering from joint pains and long term diseases.	Quality should be increased.	
Day - 2 13/9/22	Few people are drinking bore water and using for cooking	Awareness should be created in people	
Day - 3 14/9/22	In Vetampeta Colony people are getting water with mixed pesticides	Unaware of the problems from the water	
Day - 4 15/9/22	Many people drinking water with mixed bleaching powder	Quantity of Mixed bleaching powder should be decreased.	
Day - 5 16/9/22	Most of the people are getting water from outside due to water quality	Quality of water should be increased	
Day - 6 17/9/22	Few people are drinking bore water and some suffering from joint pains	Water supply should be increased.	



## WEEKLY REPORT

WEEK - 3 (From Dt. 12/9/22 to Dt. 17/9/22)

Objective of the Activity Done:

Detailed Report:

Agricultural Medical and factories 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 bleeding powder with in high quantity. Due to this some people are getting long term diseases like, cold, liver problems, kidney, problems etc.

In Velampeta colony, people are unaware of diseases they are getting. Quality of water is too low. The water supply is low and ~~for~~ people with large family are not getting regulated 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 19/9/22	Most of the peoples are getting Mineral water in Velampeta	People in Velampeta using mineral water to drink	
Day - 2 20/9/22	Few peoples are drinking Municipal water in their areas	Facilities should be created	
Day - 3 21/9/22	Some people are using under ground water in their using it for cooking purpose	Awareness should be created in Velampeta	
Day - 4 22/9/22	Few people are affordable to get filter water	People are in Velampeta using filter	
Day - 5 23/9/22	In Velampeta their are drinking polluted water	Some people are suffering with disease due to drinking of polluted water	
Day - 6 24/9/22	Some people are affordable to get filter water	People are affordable to drinking municipal water	

## WEEKLY REPORT

WEEK - 4 (From Dt. 19/9/22.. to Dt. 24/9/22)

Objective of the Activity Done:

Detailed Report:

In Velampeta 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. Pollutant were mixed with the drinking water. Some people are getting water with Mud particles, which is not used for drinking but 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 26/9/22	Most of the people are drinking municipal water and suffering joint pains	In Velampeta awareness should be created	
Day - 2 27/9/22	Many people are getting bore water supply and getting water from outside	Water supply should be increased	
Day - 3 28/9/22	Most of the people are drinking mineral water and having good water facilities	Water supply should be increased.	
Day - 4 29/9/22	Many people are getting municipal water with high mixed bleaching powder.	People unaware of diseases they are getting	
Day - 5 30/9/22	Few people drinking bore water and using it for cooking too	Awareness should be created	
Day - 6 1/10/22	People getting joint pains and some long term diseases due to low water quality	Awareness should be created Quality of water should be increased	



## WEEKLY REPORT

WEEK - 5 (From Dt. 26/9/22 to Dt. 1/10/22)

Objective of the Activity Done:

Detailed Report:

In Velampeta They are not using Municipal water and they are getting water from an 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 feared that some residential areas NAD Junction. Burhijayupalem including a couple of slum areas like poosana Market area contains aquifers with high degree of hydrogeologic vulnerability.

Most of the sections of the NAD Colony and other residential areas in the Study area have a high degree of vulnerability in the range  $120 < D < 160$ . 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.

- \* Are you aware of water pollution?
- \* What do you think about water pollution?
- \* Did water pollution affect your life?
- \* How does water pollution affect your life?
- \* What kind of water do you use as the main source of your drinking water?
- \* Do you pay attention to local drinking water quality?
- \* Are you satisfied with your drinking water quality?
- \* Do you have any problem with your tap water quality?
- \* Do you think any factors affect the quality of your tap water?
- \* Do you pay attention to the pollution events reported on TV or in the newspaper?
- \* Do you have a municipal or panchayat tap water facility?
- \* Which months do you face scarcity?
- \* Are you taking any precautions to prevent water pollution?

Describe the problems you have identified in the community

### \* Problems Identified in the Community

⇒ Lack of awareness on water pollution

⇒ There is no proper municipal or panchayat taps water facility

⇒ There is no proper main source of drinking water.

⇒ ~~Not~~ Facing water scarcity

⇒ Health issues due polluted water

⇒ Factories affecting the quality of drinking water waste of drinking water.

⇒ No proper storage for saving water.

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

While there are many things that need to be done in order to protect the environment, one highly important method of maintaining the health of the environment is to reduce water pollution, of which there are many effective solutions that can assist with this goal. Water pollution results from harmful substances contaminating any body of water. These substances typically include microorganisms and chemicals like oil. When pollution gets into a body of water, it will lower the water quality to unsafe and eventually become toxic to humans and the surrounding environment.

- \* Wastewater Treatment
- \* Plastic Waste Reduction
- \* Water Conservation
- \* Install a Water-Efficient toilet in Your Home
- \* Septic Tanks
- \* Avoid Using the Toilet as a wastebasket
- \* Stormwater Management
- \* Green Agriculture
- \* Sanitization

Description of the Community awareness programme/s conducted w.r.t the problems and their outcomes.

## Awareness about water

Public Water Conservation Campaigns create awareness in all levels of society about the importance of saving water to cope with its scarcity and ensure sustainability. The aim is to change citizens attitudes and behaviour to improve water use efficiency. Awareness programmes

S.No	Name of program	Mode	Date
1.	Awareness program on water conservation	Radio news paper, phone in programme	27/10
2.	Community based water resource Management	Koushadharshan Chandana Nalini Phone in Programme	
3.	On occasion of world water day Jalada malya Jagada Kantavya	Koushadharshan (Chandana Nalini) Phone in programme	



**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 groundwater. Water pollution result when contaminate are introduced into these water bodies water pollution can be attributed to one of four sources. Sewage discharge, industrial activities agricultural activities, and urban runoff including storm water. It can be grouped into surface water pollution [either fresh water pollution or marine pollution] or groundwater pollution. For example, releasing inadequately treated waste water into the natural waters 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, bathing, washing or no 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 an identifiable cause, such as a steam boiler, a wastewater treatment plant (or) an oil spill. non point source are more diffuse. such as agricultural runoff. pollution is the result of the Cumulative Effect over time pollution may ~~also~~ take the form of toxic substances (eg; oil, Metals, plastics, pesticides, persistent, organic pollutants, industrial waste products) Stressful 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 manufacturers.

Control of water pollution requires appropriate infrastructure and management plans as well as legislation. Technology solutions can include improving Sanitation, Sewage treatment, industrial wastes

Water treatment, Agricultural Wastewater treatment,  
Erosion Control, Sediment Control and Control of  
Urban runoff (including Stormwater Management)  
Effective Control of urban runoff includes reducing  
Speed and quantity of  $Q$  flow.

### CONTAMINANTS WITH AN ORIGIN IN SEWAGE

The following compounds can all reach water bodies  
via raw sewage & even treated sewage discharge.

- ⇒ Various Chemical Compounds found in personal hygiene  
and Cosmetics 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  
plasticizer the mimic hormones in their action.
- ⇒ Insecticides and herbicides, often from  
agricultural runoff

If 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 byproduct, 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 trichloroethylene, a common solvent. Per. and polyfluoralkyl substance (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 have safely managed sanitation, of 2017, according to an estimate by the joint maintenance 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, excess carbon dioxide or invasive organisms 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 or 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 as it causes by human influence biological pollution.

## IMPACTS:-

### ⇒ ECOSYSTEMS:-

Water pollution is a major global Environmental problem because it can result in the degradation of all aquatic Ecosystem fresh, Coastal and Ocean waters.

### ⇒ PUBLIC HEALTH AND WATER BORNE DISEASES:-

Polluted water spread 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 value of the worlds 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 minor 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 groundwaters supplied to people, they get diseases like cholera, diarrhoea, joint-pains, kidney problem, ~~lower~~ lower diseases, And throat diseases, Skin allergies.

Ground water pollution poses a hazard to the wellbeing of people and ecosystems. One-quarter of the world's population depends on groundwater for drinking.

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



Since water forms a core of the existence of human and other living things, its preservation and Sustainable availability cannot be overemphasized. The availability of clean water is greatly threatened by various human activities and of interest is pollution which in turn affects the ecosystem and causes various climatic changes. While various wastewater treatment methods are being explored by industries and various treatment plants, untreated wastewater is still being discharged into the water bodies by some industries. Thus, effective environmental protection policies Compliance drive will be of immense benefit to the environment and by extension to human. Factoring these environmental protection policies into the goals and objectives of various actors involved in environmental deterioration will help policies performance. This will serve as a step forward in the direction of ameliorating water pollution.



PHOTOS AND VIDEO LINKS

