

**STUDY ON PLANTS BIODIVERSITY IN MRS.A.V.N. COLLEGE
CAMPUS**

BY

UMMIDI

PRAMEELA

REGD.NO:720130805259



Estd : 1860

**PROJECT WORK SUBMITTED TO MRS. A.V.N COLLEGE,
AFFILIATED TO ANDHRA UNIVERSITY, VISAKHAPATNAM FOR
THE PARTIAL FULFILMENT OF DEGREE OF**

BACHELOR OF SCIENCE

2020 – 2023

MRS. A.V.N COLLEGE

VISAKHAPATNAM – 530001
ANDHRA PRADESH



CERTIFICATE

This is to certify that project entitled as " **STUDY ON PLANTS BIODIVERSITY IN MRS.A.V.N. COLLEGE CAMPUS** " is bonafide work done by **UMMADI PRAMEELA** (Regd.no: 720130805259), B.Sc – C.B.Z student under my guidance. I certify that the project work done by him/her is original and has not been submitted to any other information.


(M.Simhadri Naidu)

PRINCIPAL
PRINCIPAL
Mrs. A.V.N. COLLEGE
VISAKHAPATNAM


(L.Naveen)

MENTOR

Program Book for Community Service Project

Name of the Student: UMMAOI PRAMEELA

Name of the College: MYS. A.V.N. COLLEGE

Registration Number: 720130805259

Period of CSP: From: 01/10/22 To: 15/11/22

Name & Address of the Community/Habitation: Study on plant Biodiversity
in MYS. A.V.N. College Campus

Community Service Project Report

Submitted in accordance with the requirement for the degree of.....

Name of the College: MYS A.V.N COLLEGE

Department: BOTANY

Name of the Faculty Guide: L. NAVEEN

Duration of the CSP: From 11/10/2020 to 11/11/2022

Name of the Student: UMMADI PRAMEELA

Programme of Study Study on plant Biodiversity in Mys A.V.N College

Year of Study: 2020-2023

Register Number: 720130805259

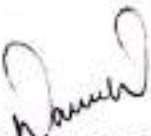
Date of Submission:

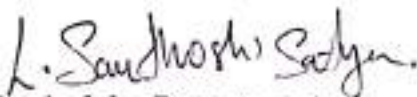
Student's Declaration


I, P. Prameela, a student of CBZ Program, Reg. No. 1203060529 of the Department of Botany M.S.A.V.N. College do hereby declare that I have completed the mandatory community service from..... toin (Name of the Community/Habitation) under the Faculty Guideship of L. Navneeth (Name of the Faculty Guide), Department of Botany...in ...M.S.A.V.N...... College

(Signature and Date)

Endorsements


Faculty Guide


Head of the Department


Principal
PRINCIPAL
MRS. A.V.N. COLLEGE
VISA KHAPATNAM

Certificate from Official of the Community

This is to certify that U. Prameela (Name of the Community Service Volunteer) Reg. No. 720130805259 of M.S.A.V.N (Name of the College) underwent community service in M.S.A.V.N. College (Name of the Community) from 01/10/22 to 15/11/22.

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


P. B. N. Thirumani
(Ward Administrative Secretary)
Authorized Signatory with Date and Seal

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 Present study "Plant Biodiversity in Mrs. S. A. V. N. College" about to list out the flora in Mrs. S. A. V. N. college which have several medicinal, ornamental and edible properties. Though this Institute rich in such useful flora, most of them didn't recognize them till now. My project was about to list out the flora in this Institute.

The whole college was divided into "8" quadrates of shrubs including 100x100 meters. The Trees and shrubs including several "Gymnosperms" and "Angiosperms" listed out in a Tabular form quadrate wisely using this quadrate method we have identified more than 50 species of plants that include medicinal plants like *Azadirachta indica*, *Tridax procumbens*, *Andrographis paniculata* etc, several oil plants like *Picinus communis*, *Terminalia catapa* etc, and also several edible plants like *Coccoloba nucifera*, *Terminalia catapa* etc.

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.

Mrs. A.V.N college founded in 1860, is an arts and science college in Visakhapatnam in the state of Andhra Pradesh, India.

Ankitam Venkata Narasimha Rao, a landlord endowed the amount of Rs one lakh, an 11-acre site and a huge building, besides a building grant of Rs 15,000 in memory of his wife. The college thus came to be known by her name, i.e, Mrs A.V.N college.

Mrs A.V.N college not only an educational Institute. It is rich in biodiversity i.e, both Plant and Animal biodiversity. It contain several kinds of plants herbs, shrubs, and Trees. Most of them are very useful in our daily life that include several properties like, medicinal values, ornamental and other properties. During my project I have identified nearly 50 plant species that has several medicinal values, ornamental properties and some are also edible though this Institute rich in such useful flora, most of them didn't recognize them till now my project was about to list out this flora in this Institute.

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 whole college was divided into 's' quadrates of 100x100 meters. The Trees and shrubs including several "Gymnosperms" and "Angiosperms" listed out in a Tabular form quadrate wisely using this quadrate method we have identified more than 50 species of plants that include medicinal plants like *Azadirachta indica*, *Tribulus terrestris*, *Andrographis paniculata* etc, several oil plants like *Ricinus communis*, *Terminalia catappa* etc, and also several edible plants like *Cocos nucifera*, *Terminalia catappa* etc. During this project I have learned the following skills;

Values:- The plant Biodiversity is one most valuable natural resources that gives medicine, wood, food. They have to conserve it.

Life skills:- we have learnt the value of natural resources and the skills required to conserve this Biodiversity.

Technical skills:- During the study I have learnt the skills required to study the Plant Biodiversity including Quadrate Analysis, Plant Identification etc...

ACTIVITY LOG FOR THE FIRST WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day - 1	Visited the study Area and divided area into '8' quadrates of 100x100 meters.	Learned about quadrate Analysis method	D. Anand
Day - 2	Identity and tabulated the list and number of plant species present in quadrate one and two	studied Plant Biodiversity quadrates 1 and 2	D. Anand
Day - 3	Identity and tabulated the list and number of plant species present in quadrate Three and four	studied plant Biodiversity 3 and 4	D. Anand
Day - 4	Identity and tabulated the list and number of plant species present in quadrate five and six	studied plant Biodiversity 5 and 6	D. Anand
Day - 5	Identity and tabulated the list and number of plant species present in quadrate seven and eight	studied plant Biodiversity 7 and 8	D. Anand
Day - 6	studied the abundance of plants species in whole campus of M.S. Am college using the quadrates.	learned identification of plants by their characteristics	D. Anand

WEEKLY REPORT

WEEK - 1 (From Dt. 11/10/20 to Dt. 18/10/20)

Objective of the Activity Done:

Detailed Report:

visited the study area and divided the area into "eight" quadrates of 100×100 meters. Identify and Tabulated the list and number of plant species present in quadrate one and two.

Identify and Tabulated the list and number of plant species present in quadrate the "3" and "4".

Identify and Tabulated the list and number of plant species present in quadrate "5" and "6". Identify and Tabulated the list and number of plant species present in quadrate

"7" and "8" studied the abundance of plant species in whole.

Campus of MRS. A.V.N COLLEGE using the quadrates.

ACTIVITY LOG FOR THE SECOND WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day - 1	The data obtained in 1st week is tabulated and studied	Learned about Biodiversity in the Community Area.	Darius
Day - 2	Using the data and awareness camp has been conducted in the Community Area	Learned about how to make a Campaign	Darius
Day - 3	By the Campaign creative Awareness about the plants available in Community Area	Learned about uses of plants in the Community Area.	Darius
Day - 4	The Campaign has been continued and created Awareness on value of plants available in the Community Area	Learned about various threats facing by plants in the Community Area.	Darius
Day - 5	The campaign has been continued and created Awareness about decreasing number of plant species in the Area	Learned about various threats facing by plants in the Community Area	Darius
Day - 6	The Campaign has been continued and created Awareness about protective measures of plants in the Area.	Learned about protective measures to be taken to conserve plants	Darius

WEEKLY REPORT

WEEK - 2 (From Dt. 08.11.2020 to Dt. 14.11.2020)

Objective of the Activity Done:

Detailed Report:

The data obtained in 1st week is tabulated and studied. using the data and awareness camp has been conducted in the community Area.

By the Campaign creative Awareness about the plant available in the community Area. The Campaign has been continued and created Awareness on value of plants available in the community Area. The Campaign has been continued about created Awareness about decreasing number of plants available in the community Area. The Campaign has been continued and created Awareness about decreasing number of plant species in the Area. The Campaign has been continued and created of Awareness about protective measures of plants in the Area.

ACTIVITY LOG FOR THE SECOND WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day - 1	The Data obtained 1st and 2 nd weeks is analysed	Learnt about How to Prepare A Data Analysis	Daman
Day - 2	The Analysed data is written on the paper in required manner.	Learnt about methods of data presentation	Daman
Day - 3	The pictures has been collected which were taken during Campaign	Learnt about methods of data presentation	Daman
Day - 4	Pie-charts and Tabular forms were prepared for Data updation	Learnt about preparation of Pie-charts and Tabular forms	Daman
Day - 5	Information obtained is updated in the Data Report.	Learnt about Information updated in the Data Report.	Daman
Day - 6	The Reported Data is verified once Again	Learnt about How to prepare and report data Analysed	Daman

WEEKLY REPORT

WEEK - 3 (From Dt. 15/10/22 to Dt. 21/10/22)

Objective of the Activity Done:

Detailed Report:

The data obtained 1st and 2nd weeks is analysed. The analysed data is written on the paper in required manner. The pictures has been collected which were taken during Campaign. Pie-charts and Tabular forms were prepared for data updation.

Information obtained is updated in the Data Report. The Reported data self-verified once again. It is also described in such useful forms, most of them didn't recognize them till now. My project was about to list out the flora in this Institute.

The pictures has been collected which were taken during Campaign. Pie-Charts and Tabular forms were prepared for Data updation.

ACTIVITY LOG FOR THE THIRD WEEK

DAY & DATE	BRIEF DESCRIPTION OF THE DAILY ACTIVITY	LEARNING OUTCOME	Person In-charge Signature
Day - 1	The community project report programme book were downloaded and print out has been taken	Learnt about How to prepare A report programme.	Dawn
Day - 2	The data obtained and prepared literature were entered in the Programme Book.	Learnt about how to prepare Literature were entered in the Book.	Dawn
Day - 3	The pictures taken during project were printed and fixed in the Programme Book	Learnt about pictures were printed and fixed in programme book.	Dawn
Day - 4	The pictures taken during project were printed and fixed in the Programme book.	Learnt about complete of project in the programme book.	Dawn
Day - 5	The programme book papers are arranged in order and verified once Again	Learnt about Arranged papers in order and verified once again.	Dawn
Day - 6	The programme book has given for binding Role work.	Learnt about How to prepare and report data Analysed	Dawn

WEEKLY REPORT

WEEK - 4 (From Dt. 22/10/24 to Dt. 28/10/24)

Objective of the Activity Done:

Detailed Report:

The community project report programme book were downloaded and print out has been taken. The data obtained and prepared literature were entered in the programme book.

The pictures taken during project were printed and fixed in the programme book. The pictures taken during project were printed and fixed in the programme book. The programme book papers are arranged in order and verified once again. The programme book has given for binding role work. In the entire the community project report programme book were downloaded and print out has been taken.

CHAPTER 5: OUTCOMES DESCRIPTION

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

The present study "Plant Biodiversity in Mrs. A.V.N College" about to list out the flora in Mrs. A.V.N College which have several medicinal, ornamental and edible properties. The whole college was divided into 8 quadrates of 100x100 meters. The trees and shrubs including several "Gymnosperms" and "Angiosperms" listed out in a tabular form quadrates wisely using this quadrate method we have identified more than 50 species of plants that include medicinal plants like Azadirachta indica, Tournefortia procumbens like Ricinus communis, Terminalia catapa etc. and also several edible plants like Cocos nucifera, Terminalia catapa etc. The remaining plant names like Azadirachta indica, Terminalia catapa, Anthocephalus kodhambu, Phyllanthus acidus, Ricinus communis, Murrillia tinctoria, Plectranthus longifolius, Cocos nucifera, Pterocarpus marsupium, Citrus lemon, Psidium, Gynura, Jatropha, Curcuma zerbilla, Ficus religiosa.

Describe the problems you have identified in the community

Though AVN college is rich in plant Biodiversity which have several beneficial values most of the people in the campus don't know their values. Due to this they are refusing to protect them. Due to improper conservation the plant Biodiversity reducing gradually with period of time. The people in this study area losing several valuable plants due to this improper conservation. The present study "plant Biodiversity in MYS. AVN college about to list out the flora in MYS AVN college which have several medicinal, ornamental and edible properties. Due to insufficient knowledge the people in the area are refusing to conserve the plants and loosed several useful plants species like *Azadirachta indica*, *Calotropis alba*, etc. which have very useful values like Dissolution of kidney stones, to treat several skin diseases etc. Due to insufficient knowledge of value of plants and their conservation methods of they are losing such valuable plants.

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.

Since the plants in the studied Area are very valuable and their number is being reduced there is a necessity to conserve these plants by in situ conservation methods like caring them, providing facilities for their growth and planting new plant species etc. The number and abundance of plant species present in the studied Area are to be identified and if possible the decreased plant species should be replanted. The plant species present in the studied Area are to be provided with suitable conditions for their growth and should be protected from threats. If possible the plant species should be provided with name plates that contain their botanical and common names, their family etc. for student references. It gives knowledge to students about plant species and their identification and also their uses. This is necessary for future generations to protect the plant species with a such a wide range of useful values.

Description of the Community awareness programme/ ~~programme~~ #10 100
problems and their outcomes.

The whole college was divided into "2" quadrates of 100x100 meters. The trees and shrubs including several "Gymnosperms" and "Angiosperms" listed out in a tabular form quadrate wisely using this quadrate method we have identified more than 50 species of plants that include medicinal plants like Azadirachta indica, Tardax procumbance, Andrographis paniculata etc, several oil plants like Ricinus communis, Terminalia catapa etc, and also several Edible plants like Cocos nucifer, Terminalia catapa etc. Though be studied such in plant Biodiversity which have several beneficial values most of the people in the campus don't know their values. Due to this they are refusing to protect them. Due to losing plant Biodiversity. By the campaign created awareness in the people of the study area on value of plants available in that Area. The campaign has been continued and created awareness about protective measures of plants in the Area.

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.

An Elusive project report on "Plant Biodiversity in MRS. A.V.N College" about to list out the flora in MRS. A.V.N college. This project report will help you to learn about meaning of Biodiversity and value of Biodiversity. Biodiversity refers to the variety and variability of all types of microbes, plants on the entire MRS. AVN college. The value of plant biodiversity is difficult to define and is of ten impossible to estimate. The whole college was divided into '8' quadrates of 100x100 meters. The trees and shrubs including several 'Gymnosperms' and 'Angiosperms' listed out in a Tabular form quadrate wisely using this quadrate method. During my project I have identified nearly 50 plant species that has several medicinal values, ornamental properties and some are also edible. Though this Institute rich on such useful flora, most of them didn't recognize them till now - my project was about to list out this flora in this Institute.

PLANT BIODIVERSITY IN MRS.A.V.N. COLLEGE CAMPUS

PLANT BOTANICAL NAME	Q ₁	Q ₂	Q ₃	Q ₄	Q ₅	Q ₆	Q ₇	Q ₈
<i>Albizia lebbek</i>	--	--	--	1	1	--	--	--
<i>Alstonia scolaris</i>	--	--	--	--	1	--	1	--
<i>Anthocephalus cadamba</i>	6	2	--	--	--	--	--	--
<i>Annona squamosa</i>	--	2	--	--	--	--	--	--
<i>Azadiracta indica</i>	2	5	6	2	--	--	2	--
<i>Bauhinia purpurea</i>	--	7	--	--	--	--	--	--
<i>Calotropis procera</i>	--	--	--	90	--	--	--	--
<i>Caryota urens</i>	--	--	--	--	--	--	3	--
<i>Cassia fistula</i>	--	--	3	--	--	2	--	2
<i>Citrus limon</i>	--	2	--	--	--	--	--	--
<i>Coccinia cordifolia</i>	--	--	--	54	--	--	--	41
<i>Coccinia graminis</i>	--	--	--	4	--	--	--	--
<i>Cocos nucifera</i>	--	2	--	--	--	--	1	--
<i>Delonix regia</i>	--	--	--	--	5	--	--	--
<i>Euphorbia hirta</i>	30	20	15	8	20	20	17	10
<i>Euphorbia milli</i>	--	--	--	--	2	--	--	--
<i>Euphorbia tirucalli</i>	1	2	--	--	--	--	--	--
<i>Ficus benghalensis</i>	--	--	--	1	--	--	--	2
<i>Ficus religiosa</i>	--	--	--	--	4	--	--	--
<i>Hibiscus rosa-sinensis</i>	--	--	--	--	--	--	1	--
<i>Hymenocalyt litoralis</i>	--	--	--	--	1	--	--	--
<i>Ixora chinensis</i>	--	--	--	--	--	--	10	--
<i>Jatropha curcas</i>	--	1	--	--	--	--	--	--
<i>Leucaena leucocephala</i>	--	--	--	--	8	--	--	--
<i>Mangifera indica</i>	--	--	--	--	1	--	--	--
<i>Mirabilis jalapa</i>	--	--	--	--	--	--	7	--
<i>Morinda tinctoria</i>	1	--	--	--	--	--	--	--
<i>Muntingia calabura</i>	--	--	1	--	2	--	--	--
<i>Phyllanthus acidus</i>	2	1	--	--	--	--	--	--
<i>Phyllanthus amarus</i>	10	12	10	20	10	--	20	--
<i>Phyllanthus emblica</i>	--	2	--	--	2	--	--	--



QUADRATE I



QUADRATE II



QUADRATE III



QUADRATE IV



QUADRATE V



QUADRATE VI



QUADRATE VII



QUADRATE VIII