BEST PRACTICE -1:

CO-OPERATIVE FARMING

With the co-operation and co-ordination of the staff and students, we are conducting one of the best practices in the name of "Co-operative farming". Most of our students and staff belong to rural background, all of them know the importance of agriculture in the life of human beings. Especially vegetable farming has the greater role in the regular life for lively hood. In view of this, our college take initiation to cultivate vegetables and leafy crops in the name of "Co-Operative farming".

OBJECTIVES:

- To provide Agri-work experience to the staff and students with the co-operative and co-coordinative orientation.
- To provide healthy and nutritive food by preparing and serving vegetable salads to the students and staff.
- To accumulate funds to provide books and other materials to the students.
- To bring awareness regarding organic farming system among the students, staff, stakeholders and community.
- To utilise the available resources like land, Bio-degradable wastage, water etc. in proper way.
- To create awareness among the students regarding resource management by controlling misuse of sources.

The Context:

- All most of all students of GDC, Huzurnagar are coming from downtrodden background.
- Because of their poor, economic background they are not affordable to purchase quality food.
- Sometimes, most of our students come to college without having any breakfast at least. As they are not bringing lunch boxes, it is becoming very hardship to them to stay afternoons in the college.
- Especially number of girl students of our college are facing iron deficiency problems. If it continuous they may affect by anaemia in their upcoming future.
- Even though, they do not know the significance of Organic farming, most of our students go to agricultural woks for their livelihood whenever they have holidays.
- Even though, the region of Huzurnagar well-known for its agricultural crops like Paddy, vegetables and also for rice mills, the farmers are not interesting in organic farming, which is advanced.

In the above context GDC, Huzurnagar takes initiation to start Co-Operative farming as our best practice.

The Practice:

As per the programme in June /July month of every year we plant vegetable, leafy seeds in the soil of college land. After two or three months we get crop with the organic farming method. We used these organic vegetables to prepare and serve salads to students once in fifteen days. From remaining excess crop, we sell some of crop to the students and staff at minimum cost. That amount of money collected in the form of "**Hundi''.** We meets the expense of books and other material to provide students from that accumulative fund.

Evidence of source:

- Because of serving vegetable salads to the students, they able to spend their evenings in the library to prepare for competitive exams, on that days.
- Now and then by having raw vegetables students are interesting to spend afternoons in the college to participate in games.
- We experienced a lot of changes occurring in the health aspects of the girl students after this best practice.
- Students are spreading awareness regarding organic farming in their respective villages.
- We provided reading table and some books in the library with the help of funds collected from this practice.
- We arranged compost pits in the campus of the college to collect Bio-degradable wastage to use in this organic farming as Bio-compost.

Obstacles faced and problems encountered:

- **T**ime planning to conduct this practice is the main problem. As faculty and students voluntarily allotting their zero time/ before and after college hours to this, we are overcoming the problem of time planning.
- It is becoming the hardship to continue this best practice during long term vacations like summer. But by sharing duties among the staff in the vacations we are protecting this spirit to resume easily in the next crop time.
- In the light of Covid-19 we are facing problems to work collectively. But by fallowing Covid -19 guidelines issued by government of India we are continuing this best practice.

Best practice-2:

SUJALAM-SUPHALAM

Objectives:

- To aware on water pollution problems to the people.
- To know the scientific evidence on water quality.
- To participate students in public awareness programs.
- To compare water quality parameters to health of public.
- To bring the thoughts on lab-to-land concept.
- To provide excess laboratory skills along with curriculum.

The Context:

The water quality of Huzurnagar Constituency based on lakes, bore wells and tap water have a considerable importance for the reason that these water resources are generally used for multiple matters such as: drinking, domestic and residential water supplies, agriculture irrigation.

Studies focusing on quality of water bodies from Huzurnagar region and especially of major bore wells, tap water and Lake water. The water in this area has polluted by continuous paddy crop, wastewater from rice mills which are using excess of water, ultimately change nature of water bodies.

So, this study has a great importance for the reason that it describes the suitability of surface water sources of overall water quality information to the concerned citizens. Most of the studies related to the assessment of the water resources quality use.

The Practice:

Water is more precious segment after air in the environment. We are using it in multiple purposes in all life activities on the Earth. Quality of water is important for health & wealth of the Nation.
Quality of water can be decided by estimation of parameters like
P^H , TDS (Total Dissolved Solids), Hardness (Total, Permanent & Temporary), Alkalanity, Chlorides (Cl^-), Sulphates (SO_4^{-2}), Phosphates (PO_4^{3-}) , Ca^{+2}, Mg^{+2}. Based on estimated parameters can be compared with Permissible Limitations suggested by Central Pollution Control Board (CPCB) in India.
Our institution undertook the project with the help of department of chemistry to practice on "Comparison of Quality Parameters of Water in Huzurnagar Region, Telangana & Remedial Methods of Better usage of Water" as Sujalam-Suphalam.

In this study, we took the following villages randomly around Huzurnagar town, where more students are coming to this institution, Government Degree College. They are:

1. Rayanigudem
2. Bakkamanthulagudem
3. Karakkayalagudem
4. Burugugadda
5. Singaram
6. Amararam
7. Matampally

In these villages, 3 types of water samples collected based on source,

1. Tank water (TKW)
2. Bore water (BW)
3. Tap water (TPW)

Along with these, 7 bore water samples are studied where public usage is more. They are:

1. Bore well beside Town hall (H1)
2. Bore well near Ravichettu Bazar (H2)
3. Bore well at Lakkavaram Road (H3)
4. Bore well at Muthyalama Temple (H4)
5. Bore well at Mutton Market (H5)
6. Bore well at Parlakottam Bazar (H6)
7. Bore well at Srinivasa Theatre (H7)

With these, total number of water samples is 29. These are collected, analysed and reported under the guidance of Dr. A. Sreenivasulu in the chemistry lab. These data made use to the people who use it.
It is becoming a practice since 2018. Now we are showing it as one of the best practices in the institution.

Evidence of Source:

After the careful study of analysis, interpretation and discussions of the numerical data following conclusions have been drawn for the ground water, tap water and tank water of Huzurnagar city & its surrounding villages which are under study as random manner.

The groundwater & tap water are crystal clear, odorless, and palatable. Most of the bore wells yield potable water with moderate mineral or dissolved salts. Water is soft in almost all the sampling points except villages near to Cement industry. But Tank water parameters deviated from drinking water limits.

As there is no considerable increase in chloride and sulphate, it shows that there is no possible contamination of groundwater due to percolation of polluted surface water near to industries.

The hardness is reported, it is by calcium itself, which is also little higher than the permissible limits.

The water quality index (WQI) falls in the Excellent Range and hence the ground water of Huzurnagar city is as considered as Excellent.

The analysis reveals that the groundwater of the area, needs certain degree of treatment before consumption (at least disinfection), and it also needs to be protected from the perils of contamination.

Obstacles faced and Problems encountered:

In getting the scientific data from undergraduate students have undoubtedly encountered obstacles: But surmounting these obstacles can sometimes lead to greater understanding, a stronger design, and better results.
The following are common challenges for broader implementation of this practice by students at undergraduate level.

- Time involved in collecting, testing and reporting water quality parameters.
  - ✓ **Zero hours in a day and vacation days are used to do this work**.
- Concerns about ensuring students are given proper methods of analysing water quality parameters.
  - ✓ **Methods of analysing water quality parameters trained with proper assistance**.
- Concerns about students in understanding water testing method and its effect on overall water quality parameters.
  - ✓ **Always guided them to get correct results.**
- Proper collection of water samples from source by students
  - ✓ **Practically shown to the students how to collect and carry to the college.**
- Concerns about students' enthusiastic participation in the project work.
  - ✓ **Motivated them to understand the importance their water quality data.**
- Concerns about different strategy from normal practical work to serious research work done by students.
  - ✓ **Alerted them to know the importance of the correct of data.**
- Proper laboratory facilities
  - ✓ **Lab was designed to use maximum extent based on available infrastructure.**
- Undergraduate course schedule to Project schedule is a big task for students.
  While departmental and institutional support is desirable and helpful, Instructions to individual students can still adopt and advocate for research-based strategies even without the active involvement of their department or institution.
  - ✓ **Maximum support is given from the department as well as institution.**

OTHER BEST PRACTICES

There are some other best practices also conducting by our college. They are as bellow.

- Department of History organises two best practices. Among those two one is named "Histo Vision", to aware students regarding glimpses of our history. Another one named as "Geo-History" to aware students regarding maps related to history as well Geography. Hence this can be considered as inter disciplinary best practice.
- Department of Botany organizes one best practice in the name of "Herbal Shampoo", with the help of medical plants located in the college zone. This Department preparing this shampoo and distributing among the girl students of the college for their health and hygiene of hair.

- Department of Zoology organizes one best practice by diagnosing Blood groups of the students. With this best practice, Department of Zoology encourages the spirit of Blood donation among the students.
- Department of Chemistry organise one best practice in the name of "Leafy relief". With the help of medical leaves and seeds available from medical plants located in the college campus, this department preparing this knee pain relief oil and distributing among the local needy at free of cost.
- Department of Physics in the part of its best practice encouraging students for their "Pencil drawings' of the images of the scientists to enhance artistic values among the students.

Remaining Departments also organizing innovative and best practices for the academic excellence and benefit of students.

Conclusion:

By conducting so many best practices, innovative activities and Distinctive practices GDC, Huzurnagar try to bring all round development among the students and other stake holders.