



GOVERNMENT OF WEST BENGAL

Office of the Principal

ACHARYA PRAFULLA CHANDRA ROY GOVERNMENT COLLEGE

HIMACHAL VIHAR, MATIGARA, SILIGURI, DARJEELING

Email Address:- apcrgc@apcrgc.org, website: www.apcrgc.org

Best Practice I: Sensitization of Students on Eco-friendly Practices and Entrepreneurship Skills

1. Title of the Practice: Sensitization of Students on Eco-friendly Practices and Entrepreneurship Skills

2. Objectives of the Practice: In today's skill-oriented, market-driven society, besides acquiring relevant skills it is also necessary to keep the environment in mind. Eco-friendly practices sustain the earth for future generations and empower individuals to tide over a highly demanding job market. Thus, our objective is to inculcate the idea of sustainable practices and entrepreneurship skills among students.


3. The Context: Eco-friendly practices are conducted in the college to ensure that no more harm is done to the environment, if not to reverse the harm already done. Through these practices, the college tries to sensitize students whereby they develop respect for nature and the environment so that they may carry a sense of responsibility towards their surroundings even beyond the campus. Integrating sustainability into daily practices today forms a moral obligation as well as a strategy for entrepreneurship. In this day and age of cut-throat competition in the job market, along with a regular degree, an extra edge is imparted to the students if they have an added qualification. With this objective in mind, APCR Government College has taken initiative for sensitizing students in eco-friendly practices and entrepreneurial skill development.

4. A. Eco-friendly Practices: To make the students eco-conscious, and the campus eco-friendly, the college has adopted several practices. While focusing on the same, it is also necessary to cultivate diverse skills for the pursuit of eco-friendly entrepreneurship so that a holistic set of skills may enable the students to navigate challenges while creating positive social and environmental impacts. To aid in making the students self-sufficient and also environment-conscious, the college has adopted several measures like:

a. Rainwater Harvesting

Since the institution is located in the foothills of Darjeeling Himalayas, the area receives adequate rainfall during most of the year. Rainwater harvesting is being done since 2018 to maintain the college garden and used for other purposes in the dry season.




Officer-in-Charge
A P C ROY GOVT. COLLEGE
Siliguri



GOVERNMENT OF WEST BENGAL
Office of the Principal
ACHARYA PRAFULLA CHANDRA ROY GOVERNMENT COLLEGE
HIMACHAL VIHAR, MATIGARA, SILIGURI, DARJEELING
Email Address:- apcrgc@apcrgc.org, website: www.apcrgc.org




Fig1: Rainwater Harvesting



Fig 2: Rain Water Storage Tanks




Officer-in-Charge
APC ROY GOVT. COLLEGE
Siliguri



GOVERNMENT OF WEST BENGAL

Office of the Principal

ACHARYA PRAFULLA CHANDRA ROY GOVERNMENT COLLEGE


HIMACHAL VIHAR, MATIGARA, SILIGURI, DARJEELING

Email Address:- apcrgc@apcrgc.org, website: www.apcrgc.org



Fig 3: Rain Water collecting lines




Officer-In-Charge
APC ROY GOVT. COLLEGE
Siliguri



b. Waste Management

The compostable kitchen waste (Fig.4(b)) of college canteen is used as organic fertiliser for gardening and vermicomposting. The waste generated through day-to-day activities in the college is segregated through at source. The waste thus collected is disposed of through a standard disposal procedure (Fig.5).



Fig. 4: (a) Dry leaves


(b) Kitchen waste

(c) Disposal



Fig. 5: Large waste bin for collection of segregated waste materials




Officer-in-Charge
A P C ROY GOVT. COLLEGE
Siliguri



c. Bio-compost and pesticide

(i) Vermicomposting

A vermicomposting unit (as shown in fig. 6, 7 and 8) was started in our college in the year 2021. The organic waste from the canteen is used here. Even the leaves fallen from trees on the campus are used to feed the vermicomposting unit. The compost thus produced is used in fertilising the plants in the college garden. MOUs with Center of Floriculture and Agri-business Management, University of North Bengal have also been signed on 31.03.2023 to upgrade the unit.



Fig. 6: Vermicomposting Unit




Officer-In-Charge
A P C ROY GOVT. COLLEGE
Siliguri



Fig. 7: Collection of vermicomposting manure



Fig. 8: (a) Vermicomposting manure

Fig. 8 (b) Earthworm used for vermicomposting





 Officer-in-Charge
 APC ROY GOVT. COLLEGE
 Siliguri



Fig. 9: Hands on training on Bio-fertilizer, Bio-pesticides and Vermicomposting




Officer-In-Charge
A P C ROY GOVT. COLLEGE
Siliguri



GOVERNMENT OF WEST BENGAL

Office of the Principal

ACHARYA PRAFULLA CHANDRA ROY GOVERNMENT COLLEGE
HIMACHAL VIHAR, MATIGARA, SILIGURI, DARJEELING

Email Address:- apcrgc@apcrgc.org, website: www.apcrgc.org



पश्चिम बंगाल WEST BENGAL 74AB 690936

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (hereinafter called as the 'MOU') is entered into on The 21st DAY of March, Two Thousand and Twenty Three by and between

Acharya Prafulla Chandra Roy Government College (APCRGC), Siliguri
and
Center of Floriculture & Agri -Business Management (COFAM),
University of North Bengal

Acharya Prafulla Chandra Roy Government College and Center of Floriculture & Agri - Business Management (COFAM), University of North Bengal being two Institute of Higher Education learning share common values of interest in the academic circle.

The purpose of this MOU is to promote cooperation in scientific education and research between Acharya Prafulla Chandra Roy Government College (APCRGC), Siliguri and Center of Floriculture & Agri - Business Management (COFAM), University of North Bengal.

Types of Cooperation

Through this memorandum, both Parties affirm the value of collaboration and agree to promote the following activities:

1. Joint entrepreneurship projects in fields of mutual interests;
2. Exchange of academic publications and reports, conducting seminars, workshops etc
3. Opportunities for faculty and staff development and exchange;
4. Exchange of visiting research scholars, including graduate level Students
5. Other activities as mutually agreed.

This Agreement places no financial obligations or supplementary funding commitments on either party. These activities will be defined through separate program agreements that detail the commitment of resources (financial or otherwise) required by each Institution. Subsequent program agreements must be approved in writing by the authorized representatives of each party.

Terms

This agreement will become effective upon the date of signature by both parties. It shall remain valid for a period of five (5) years from the date of the last signature, with the understanding that it may be modified by written mutual consent of both parties. This agreement may be terminated by either party with advance written notice of at least thirty (30) days. Upon notice of termination both COFAM and APCRGC agree to work in good faith to enable visiting scholars to complete their respective research programs unhindered by the termination. The agreement may be extended by mutual consent of the two parties after the five-year period, and it must be renewed in writing.

For Acharya Prafulla Chandra Roy Government College (APCRGC), Siliguri
 Officer-In-Charge
 Acharya Prafulla Chandra Roy Government College, Siliguri

For Center of Floriculture & Agri -Business Management (COFAM), University of North Bengal
 Coordinator
 Center of Floriculture & Agri -Business Management (COFAM), University of North Bengal



Fig. 10: MOUs with Center of Floriculture and Agri-business Management (COFAM), University of North Bengal



Handwritten signature
Officer-In-Charge
A P C ROY GOVT. COLLEGE
Siliguri



(ii) Jeevamrut

Jeevamrut (Fig. 11) is the use of microorganisms for increasing the fertility of the soil. It is derived from the words “Jeeva” and “Amrutha” meaning life and elixir respectively.



Fig. 11: Preparation of JEEVAMRUT & NEEMA STRA


(iii) Neemastra

Neemastra is a residue free pesticide made from neem leaves. Neem leaves, besides being an excellent fertilizer, have anti-microbial and pesticidal properties.

Biocompost offers several benefits, like:

1. **Educational Opportunities:** it is being used as an educational tool. Students involved in the process learn about waste management, environmental sustainability, and biology.
2. **Reduced waste:** Biocompost has helped in diverting organic waste from landfills, reducing the environmental footprint of the college.




Officer-in-Charge
A P C ROY GOVT. COLLEGE
Siliguri



GOVERNMENT OF WEST BENGAL

Office of the Principal

ACHARYA PRAFULLA CHANDRA ROY GOVERNMENT COLLEGE
HIMACHAL VIHAR, MATIGARA, SILIGURI, DARJEELING

Email Address:- apcrgc@apcrgc.org, website: www.apcrgc.org

Partnerships: The College has collaborated with COFAM, NBU and have agreed to promote entrepreneurship in areas of joint interest, exchange of ideas, publications and reports, faculty development and exchange of students.

GOVERNMENT OF WEST BENGAL
Office of the Principal
ACHARYA PRAFULLA CHANDRA ROY GOVERNMENT COLLEGE
HIMACHAL VIHAR, MATIGARA, SILIGURI, DARJEELING
Email Address:- apcrgc@apcrgc.org, website: www.apcrgc.org

Activity conducted under MOU between APC Roy Govt. College, Siliguri and
COFAM (Centre of Floriculture and Agri-Business Management), University of North
Bengal in the Academic Session 2022-23

Hands on Training: Bio-pesticides, Bio-fertilizers and Vermicompost

1. **Venue and Date:** Seminar Hall and College Premises of A.P.C. Roy Govt. college, Siliguri, on
11.05.2023

2. **Participants:** Students of A.P.C. Roy Govt. College

Objectives:
Workshop for the students on Sensitization, Skill Enhancement and Hands on Training for
Entrepreneurship Development, on Bio-pesticides, Bio-fertilizers and Vermicompost by the students
of A.P.C. Roy Govt. College

Activity:
Hands-on training on vermicomposting typically involves a combination of theoretical knowledge and
practical experience in the process of vermicomposting, which is the decomposition of organic waste using
earthworms. During the training, participants usually learn about Understanding the principles and benefits
of vermicomposting, including its environmental impact and potential for waste reduction.

Bio-pesticides involve practical sessions where participants learn about the production, application, and
effectiveness of bio-pesticides through direct engagement with the materials and techniques involved. This
type of training typically includes: Introduction to Bio-pesticides, Understanding the basics of bio-
pesticides, including their definition, types, modes of action, and benefits over conventional pesticides.

Bio-fertilizers typically involve practical sessions where participants learn about the production,
application, and benefits of using bio-fertilizers in agricultural practices. The training usually starts with an
overview of what bio-fertilizers are, their types and their importance in sustainable agriculture. Participants
are guided through the process of producing bio-fertilizers, which may include selecting appropriate
microbial strains, preparing inoculants, and optimizing growth conditions such as temperature, pH, and
nutrient sources.

A. PANDEY
TECHNICAL OFFICER

Officer-in-Charge
APC Roy Govt. College
Siliguri

Fig. 12: Activity report under MoU



Officer-in-Charge
APC ROY GOVT. COLLEGE
Siliguri



(iv) Vermiwash

Vermiwash, the liquid that is drained from a vermicomposting system, is rich in nutrients and can be used as an organic fertilizer for plants. Implementing vermiwash (Fig.13) production in college can help reduce organic waste, provide nutrient-rich fertilizer for campus gardens or landscaping. Additionally, it can serve as an educational tool to teach students about composting, nutrient cycling, and sustainable agriculture.

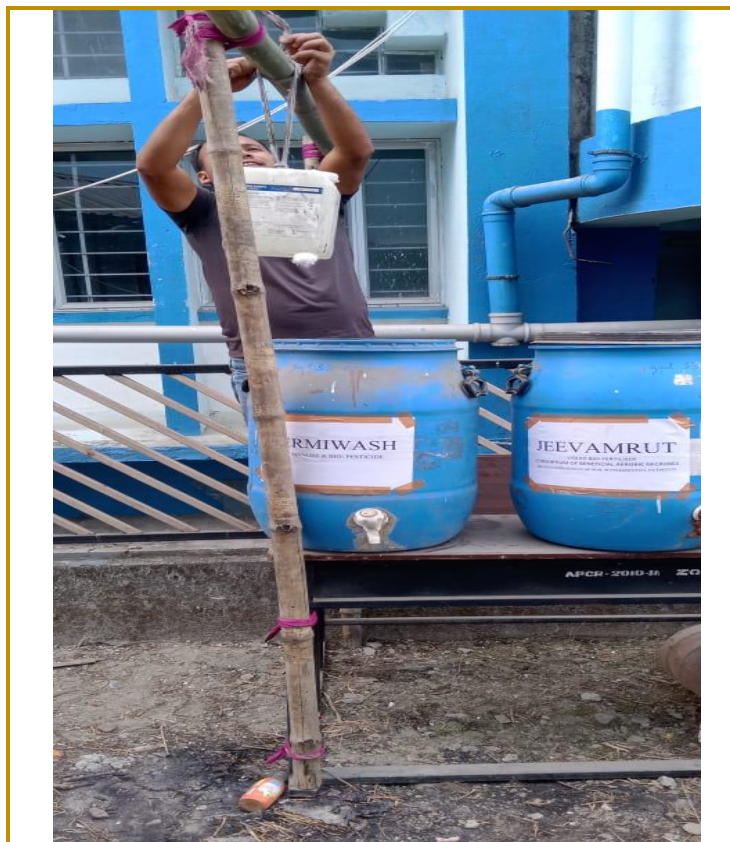



Fig. 13: Preparation of Vermiwash




Officer-in-Charge
A P C ROY GOVT. COLLEGE
Siliguri



B. Entrepreneurial Skill Development


(i) Mushroom Culture

Mushroom as a rich source of protein has a high demand in both domestic and international market. Our college being in the foothills of Himalayas has an ideal environmental condition for mushroom culture. Cultivation of oyster mushrooms has been initiated in the session 2022-23 to encourage the students for a future investment in eco-friendly practices. A room along with requisite set up has been dedicated for the said purpose for hands on training of the students (Fig. 14).



Fig.14: Mushroom Cultivation




Officer-in-Charge
A P C ROY GOVT. COLLEGE
Siliguri



(ii) Training on Colouring of Flowers

A MOU was signed with COFAM (Centre of Floriculture and Agri-Business Management), University of North Bengal, Siliguri on 31.03.2023. Following the signing of the MOU, hands-on training was given to the students who were able to colour different varieties of flowers like white chrysanthemum (Chandramallika) and tuberose (Rajnigandha). As the coloured flowers have a remarkable market value, the students who learned this art would be able to start the practice on a small scale and in due course would be able to start their own business on a larger scale (Fig. 15,16).

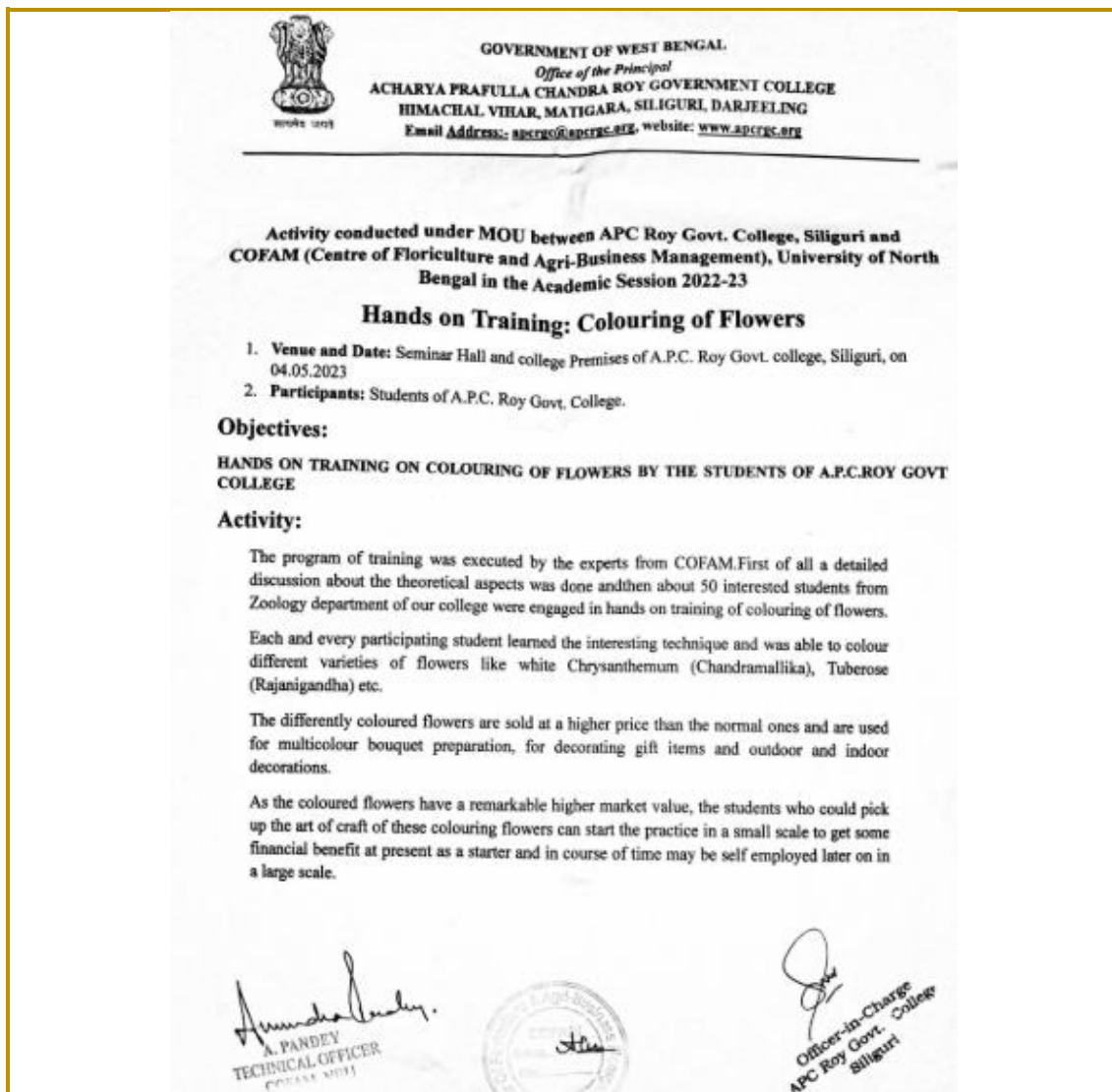


Fig.15: Activity Report: Hands On Training - Colouring of Flowers



[Signature]
Officer-in-Charge
APC ROY GOVT. COLLEGE
Siliguri



Fig. 16: Training on Colouring of Flowers




Officer-In-Charge
A P C ROY GOVT. COLLEGE
Siliguri



GOVERNMENT OF WEST BENGAL

Office of the Principal

ACHARYA PRAFULLA CHANDRA ROY GOVERNMENT COLLEGE
HIMACHAL VIHAR, MATIGARA, SILIGURI, DARJEELING


Email Address:- apcrgc@apcrgc.org, website: www.apcrgc.org

(iii) Cake Baking: A one day workshop on Cake Baking Hours was organised by IQAC, A.P.C. Roy Govt. College February, 2023. The representative member of the Siliguri Bodhi Bharati Vocational Institute beautifully conducted the workshop and practically demonstrates the fundamental techniques and methods involved in baking cakes, including ingredient preparation, mixing, baking, and decorating. Overall, this participants with the knowledge, skills, and confidence to create delicious, visually appealing cakes and to cultivate a passion for the art of baking through skill enhancement (Fig. 17).



Fig. 17: Entrepreneurship program on cake baking by Siliguri Bodhi Bharati Vocation Institute at APCRGC




Officer-In-Charge
A P C ROY GOVT. COLLEGE
Siliguri



GOVERNMENT OF WEST BENGAL

Office of the Principal

ACHARYA PRAFULLA CHANDRA ROY GOVERNMENT COLLEGE

HIMACHAL VIHAR, MATIGARA, SILIGURI, DARJEELING

Email Address:- apcrgc@apcrgc.org, website: www.apcrgc.org

5. Evidence of Success


Evidence of success is seen in the campus which is clean and green. Both students and faculty members are conscious about maintaining the cleanliness and overall health of the environment of the institution and its surroundings. As a part of social responsibility, an awareness campaign was conducted by the college to identify the trees of the neighbouring area.

Besides being responsible graduates, the college aims to make the students self-reliant in future. A One Day state level seminar “**ENTREPRENEURSHIP - DON'T FEAR IT, JUST FACE IT**” was organised by IQAC, APC ROY GOVERNMENT COLLEGE on 10.03.23. Dr. Anjali Prasad, CEO & FOUNDER, ECOPHILIC FARMING SOLUTIONS LLP was the keynote speaker of the program and she covered all aspects of the theme. A web seminar entitled ‘Entrepreneurship - Start-ups to Scale-ups’ by Mr. Sayantan Roy, Credit Card Portfolio Manager, Indusind Bank, Mumbai, Maharashtra was held on 13.05.2023 to sensitize the students for entrepreneurship skill development in future.

6. Problems Encountered and Resources Required

- Rainwater harvesting is in its initial stage and further planning and resources are required for its maximum utilization.
- Finances are required for the maintenance and upkeep of the existing facilities.
- More intensive training programmes are necessary for the development of entrepreneurship skill development.




Officer-in-Charge
A P C ROY GOVT. COLLEGE
Siliguri