

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnana Sangama, Belagavi- 590018



Social Connect and Responsibilities (BSCK307)

Report On: Activity-3

“Organic Farming and Waste Management”

*Submitted in partial fulfilment of the requirements for the **Third Semester** degree of **Bachelor of Engineering in Computer Science Engineering** of Visvesvaraya Technological University, Belagavi*

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OBJECTIVES

The Major objective of the activity is to create awareness and educate the students, local community regarding “**Organic Farming and Waste Management**”. It involves not only the environmental but it also concerned with integration to local, regional and National socio-economic development.

- ❖ To produce of high nutritional quality food.
- ❖ To work with natural system rather than seeking to dominate them.
- ❖ To maintain and increase long term fertility of soil.
- ❖ To maintain the genetic diversity of agricultural system and its surroundings, including the plants and wild life habitats.
- ❖ The main objective of waste management is to reduce the environmental and health hazards that arise from indiscriminate dumping of waste and pollution of natural resources like the land, sea and air.

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INTRODUCTION



Organic farming and waste management are two interconnected practices that play critical roles in sustainable agriculture and environmental conservation. Organic farming emphasizes the use of natural methods to cultivate crops and raise livestock without the use of synthetic fertilizers, pesticides, or genetically modified organisms. On the other hand, waste management focuses on minimizing, reusing, recycling, and properly disposing of waste generated from agricultural activities to reduce environmental pollution and promote resource conservation.

Organic farming promotes biodiversity, soil health, and long-term sustainability by employing techniques such as crop rotation, composting, biological pest control, and cover cropping. These methods enhance soil fertility, reduce erosion, conserve water, and minimize the negative impact on ecosystems compared to conventional farming practices.

Waste management in organic farming encompasses various strategies to manage organic waste, including crop residues, animal manure, and food scraps. Composting is a common practice in organic agriculture, where organic waste materials are decomposed into nutrient-rich compost, which can be used to fertilize soil and improve its structure and moisture retention capacity. Additionally, anaerobic digestion can be employed to convert organic waste into biogas, a renewable energy source, and nutrient-rich digestate, which can be used as fertilizer. Effective waste management in organic farming not only helps in reducing greenhouse gas emissions and mitigating climate change but also contributes to the circular economy by closing nutrient loops and reducing reliance on external inputs.

USEFULNESS OF ORGANIC FARMING

The usefulness of organic farming extends beyond mere agricultural practices; it encompasses a range of benefits that impact environmental, social, and economic aspects of society. Here are some key points highlighting the usefulness of organic farming:

- ❖ **Environmental Benefits:** Organic farming methods prioritize soil health, biodiversity conservation, and reduced chemical pollution. By eschewing synthetic pesticides and fertilizers, organic farming minimizes contamination of soil, water, and air, thus safeguarding ecosystems and promoting overall environmental health. Additionally, organic practices such as crop rotation and cover cropping enhance soil fertility, water retention, and carbon sequestration, contributing to climate change mitigation.
- ❖ **Healthier Food:** Organic farming typically produces food with lower pesticide residues and higher levels of beneficial nutrients such as antioxidants and vitamins. Consumers often choose organic produce for its perceived health benefits, including reduced exposure to harmful chemicals and potential support for overall well-being.
- ❖ **Biodiversity Conservation:** Organic farms tend to harbor greater biodiversity, including a variety of plants, insects, birds, and microorganisms. By avoiding chemical inputs and preserving natural habitats within and around farms, organic farming supports wildlife and ecosystem resilience, promoting biological diversity and ecological balance.
- ❖ **Soil Conservation:** Organic farming practices prioritize soil conservation and regeneration. By minimizing tillage, employing cover crops, and incorporating organic matter through composting and mulching, organic farmers improve soil structure, reduce erosion, and enhance soil fertility over the long term.
- ❖ **Water Quality and Conservation:** Organic farming methods emphasize water conservation and reduce the risk of water pollution. By avoiding synthetic fertilizers and pesticides, organic farms minimize runoff of harmful chemicals into water bodies, thereby protecting water quality and aquatic ecosystems. Additionally, practices like mulching and cover cropping help retain soil moisture and reduce irrigation requirements.
- ❖ **Climate Change Mitigation:** Organic farming practices, such as carbon sequestration in soils and reduced reliance on fossil fuel-based inputs, can contribute to climate change mitigation efforts.

WASTE MANAGEMENT IN CITIES V/S VILLAGES OF INDIA

- ❖ Waste management in cities and villages can have some similarities, but there are also significant differences.
- ❖ These differences are mainly due to the different population densities, infrastructure, and resources available in each setting.
- ❖ In villages waste generated from kitchen like vegetable's peeler, rotten vegetable and fruits etc. are converted into Fertilizer.
- ❖ In the city, kitchen waste is dumped in green dustbins and further taken away by the members of the municipal corporation.



Availability of resources:

Cities have more resources like funds, infrastructure, and technology to manage the waste effectively, whereas villages have less access to these resources and have to rely on traditional and simple methods of waste management.

Processing and disposal:

Cities often have advanced waste processing and disposal facilities, such as landfills, incineration plants, and recycling facilities. Villages, however, may have more limited options and may rely on open dumping or burning of waste.

WET WASTE MANAGEMENT IN NEIGHBOURING VILLAGES/LOCALITIES

1. DEVANAHALLI:



- ❖ Devanahalli is a municipal town in Bengaluru rural district. It has around 40000 residents.
- ❖ Segregation of waste is done by issuing strict guidelines.
- ❖ Generally, two types of waste Segregation are done.
- ❖ Dry waste collection.
- ❖ Wet Waste collection.
- ❖ Solid Wet waste is made into compost by the residents and liquid wet waste is treated using chemical processes and FSTP (Faecal Sludge Treatment Plant) is established near Devanahalli.
- ❖ Its design capacity is 6000 litre/day.
- ❖ The BBMP collects the separated waste and further proceed it to recycling.

2. CHIKKAJALA:

- ❖ Chikkajala waste management project covers nearly 2200 households and a population of 9000 people are taken under.
- ❖ Saahas NGO is implementing the project using corporate Responsibility funds.

- ❖ Continuous IEC (Information, Education, Communication) sessions with schools, general public, households, shops, panchayat staff is done to bring awareness about importance of waste management.
- ❖ For wet waste management, emphasis has been given to handle wet locally.
- ❖ Home composting and lane composting options are being tried out.
- ❖ As of January 2023, nearly 500 houses are doing home composting in Chikkajala Panchayat area.
- ❖ Lane composting is being practiced at three places,
 - ❖ One in temple
 - ❖ Street level
 - ❖ School level.



EXISTING WASTE MANAGEMENT SYSTEM IN OUR COLLEGE CAMPUS



Solid waste management:

- ❖ Waste is collected on a daily basis from various sources and is separated as dry and wet waste.
- ❖ Color coded dustbins are used for different types of wastes. Green for wet and blue for solid waste.
- ❖ Daily garbage is collected by housekeeping personal.

Liquid Waste Management:

- ❖ The waste chemicals mixed water from laboratory passes through concealed pipe line into soak pit & recycled water is used for the watering trees or non-potable usage.
- ❖ Liquids are diluted by getting mixed with the washroom and toilet liquid wastes in to the common drainage.

Biomedical waste management:

- ❖ Biomedical generated from the laboratory gets handover to authorized waste personnel.

E-waste management:

- ❖ The E-waste collected is stored in store room and disposed every year accordingly.
- ❖ Old monitors and CPUs are repaired by our technician and reused.

INITIATIVE AS A STUDENT TO IMPLEMENT AND IMPROVE WASTE MANAGEMENT

- ❖ **Waste Audit:** Conduct a waste audit to assess the composition and quantity of waste generated in your school or local area. This can help identify opportunities for waste reduction, recycling, and composting. Work with teachers, administrators, and local authorities to gather data and analyze the findings.
- ❖ **Research and Awareness:** Begin by researching the current waste management practices in your school or community. Understand the types of waste generated, how they are managed, and the existing infrastructure for waste collection, segregation, and disposal. Raise awareness among your peers about the importance of proper waste management and its impact on the environment and public health.
- ❖ **Recycling Initiatives:** Work with local recycling facilities or waste management companies to establish a recycling program for paper, plastic, glass, and other recyclable materials. Install recycling bins in key locations and educate students and staff about what items can be recycled and how to prepare them for recycling.
- ❖ **Research and Awareness:** Begin by researching the current waste management practices in your school or community. Understand the types of waste generated, how they are managed, and the existing infrastructure for waste collection, segregation, and disposal. Raise awareness among your peers about the importance of proper waste management and its impact on the environment and public health.



DESCRIPTION OF THE ACTIVITY

First, we gathered the Information about **Organic Farming** from the different sources like online source and different books.

We studied about the Waste management and visited to nearby village some of the villages are Devanahalli and Chikkajala.

In Both villages we talk to the municipal Corporation people know some information and also, we saw the process of converting different waste material into useful product.

We met to the farmers and know about the **Organic farming** and also know the usefulness of organic farming and process of doing organic farming.

We also collected the information about different waste management system in our college campus and the laboratory then mentioned here.

CONCLUSION

From completing this activity, we can conclude that **Organic Farming** is far better than conventional farming because it replenishes natural ecosystems and maintain the balance by keeping water and air cleaner, all without toxic pesticide residues. As for the waste management, our first goal must be to educate the people about the importance of keeping the environment clean must be their main goal only then we can slow and steadily bring the changes we desire. Waste management in India for cities and villages are quite different, so they must be solved using different approach. As a student our responsibility is to create awareness of the clean environment so that people will value the Nature and lead a healthy lifestyle.

References:

https://en.wikipedia.org/wiki/Organic_farming

<https://www.india.gov.in/topics/agriculture/organic-farming>

<https://saahaszerowaste.com/waste-management-services-bangalore/>

<https://www.sciencedirect.com/journal/waste-management>

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Of
2024

CERTIFICATE OF COMPLETION

This Certificate Is Presented To

Sample Name

For the completion of

"Organic Farming and Waste Management"

Activity in the subject of Social Connect And Responsibility



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