COURSE ON

SUSTAINABLE ENVIRONMENTAL PRACTICES

23-28 FEBRUARY, 2020

ORGANISED BY

DEPARTMENT OF BIOTECHNOLOGY

CHHATRAPATI SHAHU JI MAHARAJ UNIVERSITY

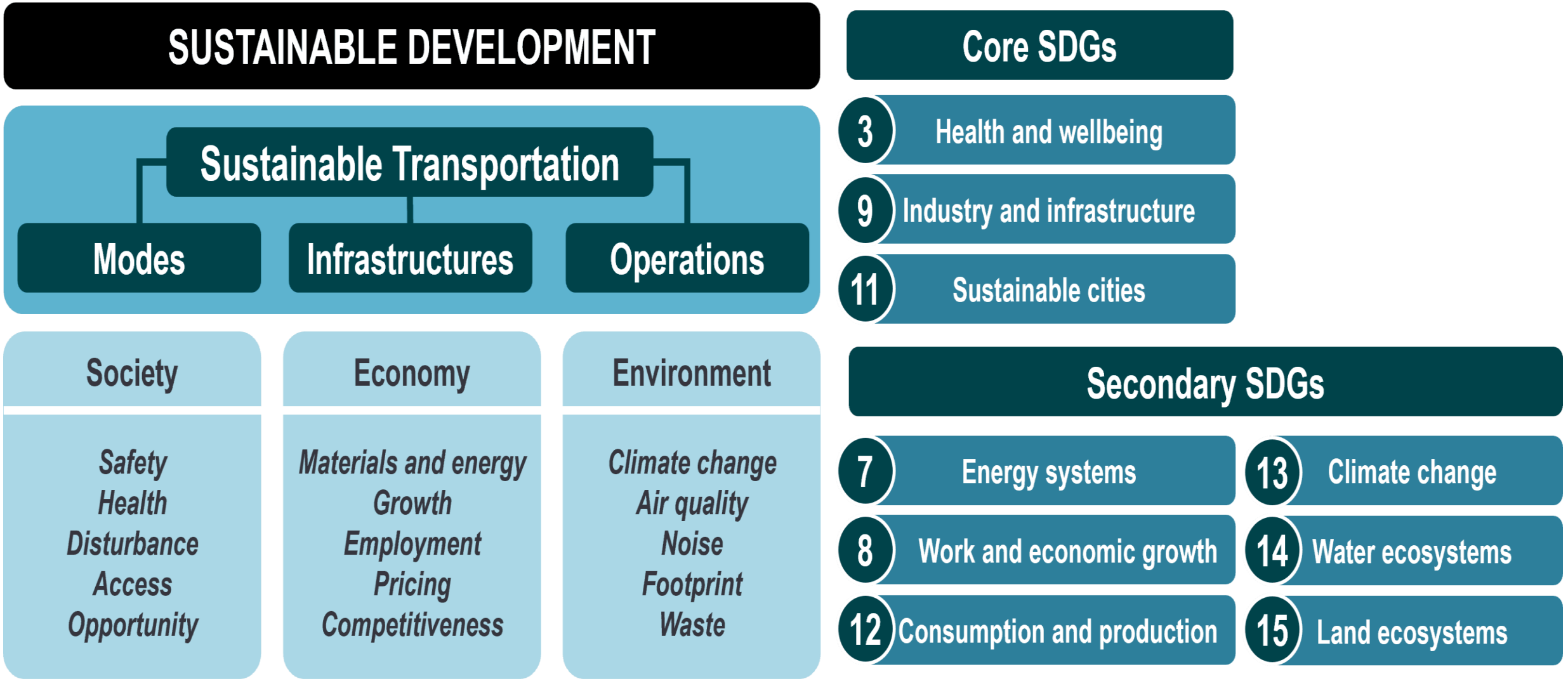
KANPUR UP

Sustainable environmental practices are actions and behaviors that aim to minimize negative impacts on the environment while promoting long-term sustainability. These practices can be applied in a variety of settings, from households and businesses to entire industries and governments.

Some examples of sustainable environmental practices include:

- **Reduce, Reuse, and Recycle: The three R's are a well-known strategy for reducing waste and conserving resources. By reducing consumption, reusing items as much as possible, and recycling materials, we can minimize the amount of waste that goes to landfills and reduce the need for new resource extraction.**

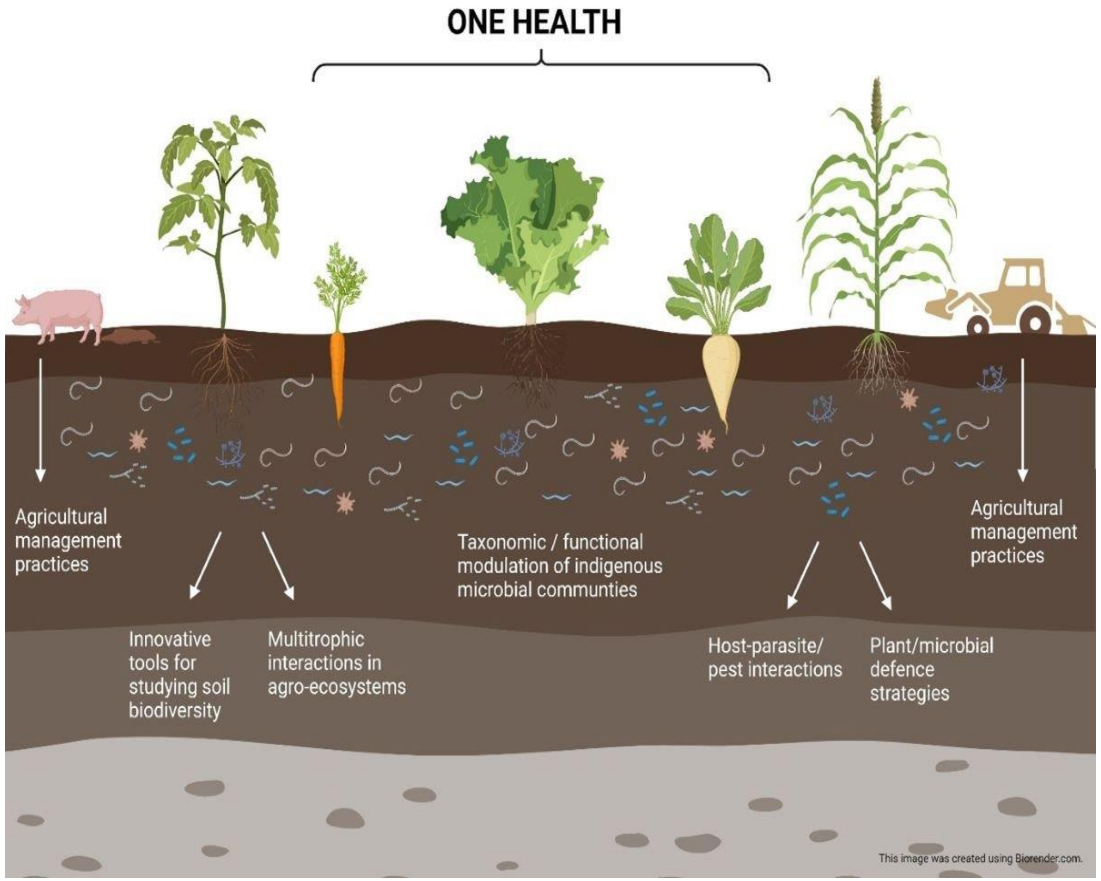
- **Energy Conservation: Conserving energy is an important way to reduce greenhouse gas emissions and combat climate change. This can be achieved through a variety of actions such as turning off lights and electronics when not in use, using energy-efficient appliances, and installing renewable energy systems such as solar panels.**



Sustainable Transportation: Transportation is a major contributor to greenhouse gas emissions. Sustainable transportation practices include using public transportation, biking or walking whenever possible, and using electric or hybrid vehicles.

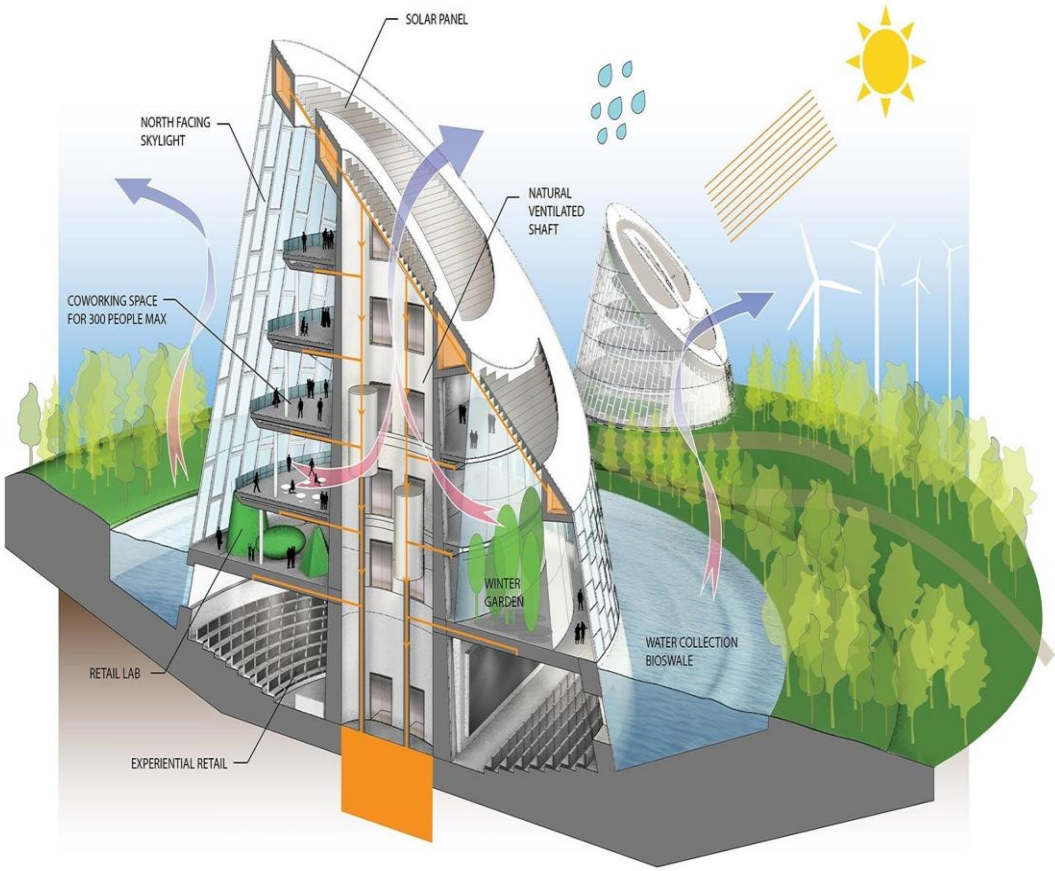
- **Water Conservation: Water is a valuable resource that is becoming increasingly scarce in many parts of the world. Conserving water can be achieved through simple measures such as fixing leaks, installing low-flow fixtures, and reducing outdoor water use.**

- **Sustainable Agriculture: Agriculture can have significant environmental impacts through the use of pesticides, fertilizers, and other chemicals. Sustainable agriculture practices include reducing chemical use, using organic farming methods, and conserving soil and water resources.**



- **Sustainable Building: Buildings have a significant environmental impact through their construction, operation, and disposal. Sustainable building practices include using recycled or sustainable materials, designing buildings to be energy-efficient, and reducing waste during construction and demolition.**

Overall, sustainable environmental practices are essential for preserving the natural resources we rely on and ensuring a healthy and prosperous future for generations to come. By adopting these practices in our daily lives, we can all contribute to a more sustainable future.



Measures for sustainable environmental practices include a wide range of actions and behaviors that aim to reduce negative impacts on the environment and promote long-term sustainability. Some of these measures include:

1.Reduce energy consumption: Energy conservation is an important measure for sustainable environmental practices. By reducing energy consumption, we can reduce greenhouse gas emissions, conserve natural resources, and save money on energy bills. Some ways to reduce energy consumption include using energy-efficient appliances, turning off lights and electronics when not in use, and using renewable energy sources.

2.Reduce waste: Waste reduction is another important measure for sustainable environmental practices. By reducing waste, we can conserve resources, reduce landfill space, and save money on disposal costs. Some ways to reduce waste include using reusable bags, containers, and water bottles, composting organic waste, and recycling materials.

3.Conserve water: Water conservation is a critical measure for sustainable environmental practices, especially in areas where water is scarce. Some ways to conserve water include fixing leaks, using low-flow fixtures, and reducing outdoor water use.

SUSTAINABLE ENVIRONMENTAL PRACTICES


Prof. Vinod Tare
IIT, Kanpur


Samsung Triple camera

Afforestation is the process of establishing a forest, or stand of trees, in an area where there was no forest. This process involves planting trees, often with the goal of restoring a degraded ecosystem, mitigating climate change, or providing wood products. Afforestation is an important practice for sustainable environmental management as forests provide a wide range of ecological, economic, and social benefits.

Ecological benefits of afforestation include:

1.Carbon sequestration: Trees absorb carbon dioxide from the atmosphere, helping to mitigate climate change by reducing greenhouse gas emissions.

2.Soil conservation: Trees help prevent soil erosion and nutrient depletion by stabilizing soil with their roots and providing leaf litter and other organic matter.

3.Biodiversity conservation: Forests provide habitats for a wide range of plant and animal species, contributing to biodiversity conservation.

Economic benefits of afforestation include:

1.Wood products: Trees provide a renewable source of wood products, such as timber and paper.

2.Non-timber forest products: Forests also provide non-timber forest products, such as medicinal plants, food, and fuelwood.

3.Tourism: Forests can attract tourists who come to enjoy recreational activities, such as hiking, camping, and wildlife watching.

Social benefits of afforestation include:

1.Recreation: Forests provide opportunities for outdoor recreation and can improve mental and physical health.

2.Cultural significance: Forests can have cultural and spiritual significance for local communities, providing a sense of place and identity.

3.Employment: Afforestation can create jobs in planting, forestry management, and wood products industries.

However, afforestation must be done carefully to avoid negative impacts on existing ecosystems or local communities. Planting non-native species or planting in areas with high conservation value can have negative impacts on biodiversity, and planting forests on land that is needed for agriculture or other uses can have negative impacts on local communities. Therefore, it is important to carefully plan and implement afforestation projects to maximize their benefits and minimize their negative impacts.

Biotoilets are a type of eco-friendly toilet that uses microorganisms to break down human waste into compost. They are designed to be used in areas without access to a centralized sewage system or where traditional sewage treatment methods are not practical. Biotoilets can be used in a variety of settings, including homes, schools, offices, parks, and campgrounds.

Biotoilets work by separating urine and feces and storing them in separate chambers. The urine is collected in a separate container and can be used as fertilizer for plants. The feces are mixed with a microbial inoculant, such as sawdust or coconut coir, which helps to break down the waste and turn it into compost. The compost can then be used as a soil amendment for gardening or agriculture.

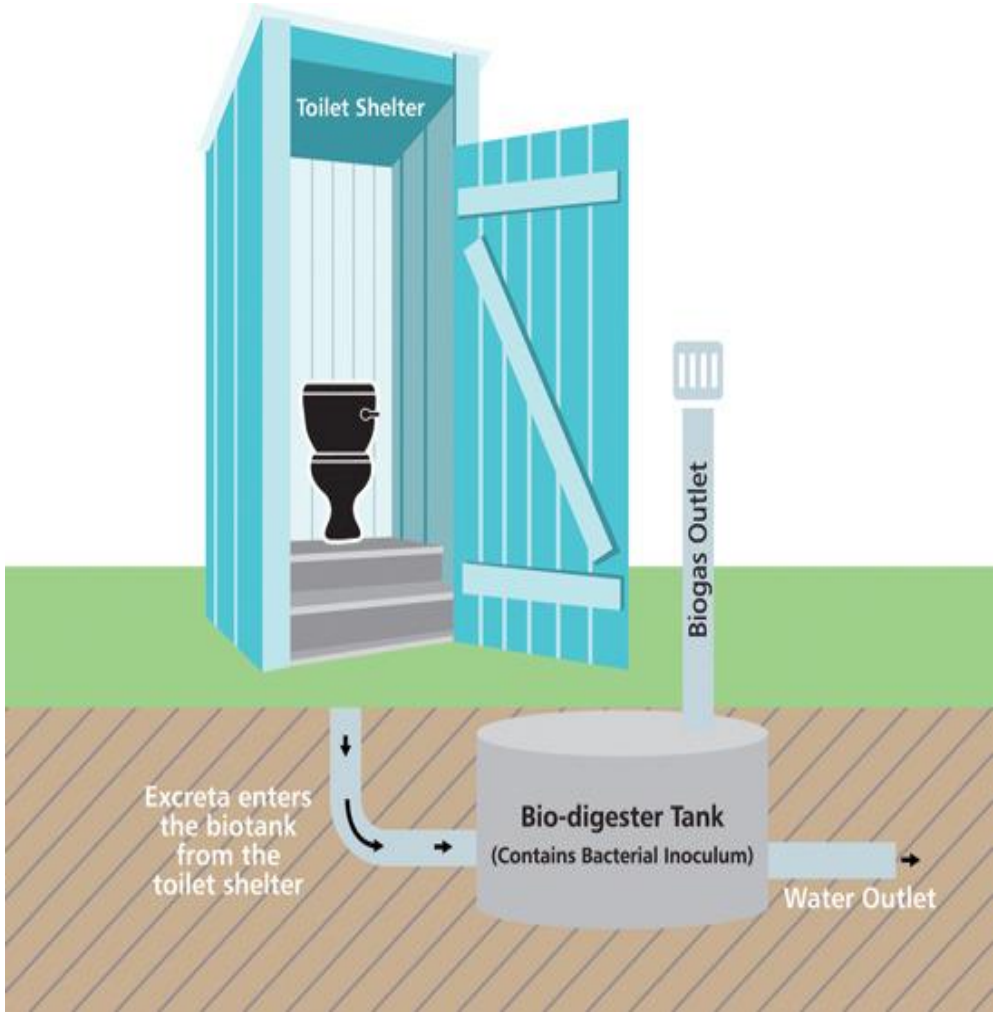
Biotoilets have several advantages over traditional toilets:

1.Eco-friendly: Biotoilets help to reduce water consumption and prevent water pollution by using little or no water and by breaking down waste on-site.

2.Cost-effective: Biotoilets are less expensive than traditional toilets and do not require a sewage system or connection to a water supply.

3.Portable: Biotoilets can be easily transported and installed in areas where traditional toilets are not practical or available.

4.Odor-free: Biotoilets use natural processes to break down waste, which reduces or eliminates unpleasant odors.



However, biotoilets also have some limitations and challenges:

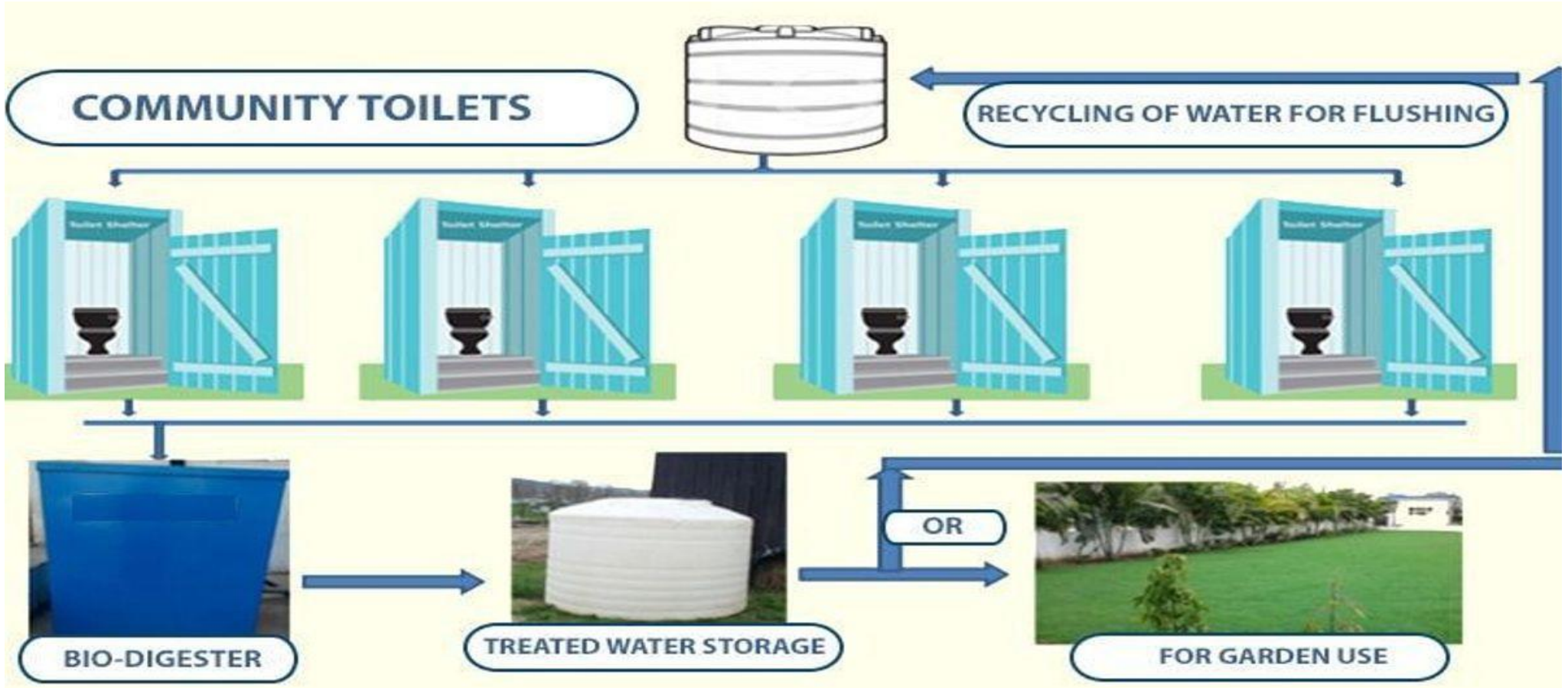
1.Maintenance: Biotoilets require regular maintenance, such as adding microbial inoculants and emptying the compost chamber.

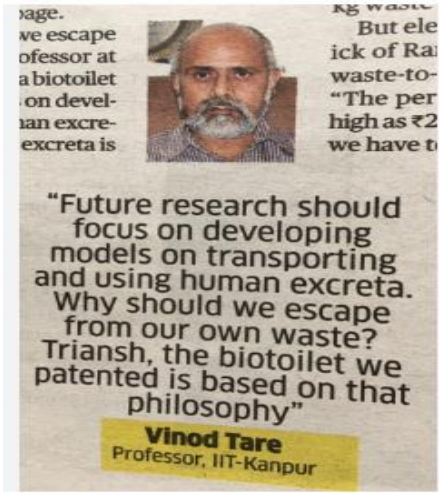
2.Capacity: Biotoilets have limited capacity and may require frequent emptying, especially in high-use settings.

3.Education: Biotoilets may require user education to ensure that they are used properly and that users understand how to maintain them.

4.Climate: Biotoilets may not be suitable for areas with extreme temperatures, as the microorganisms require a specific temperature range to function effectively.

Overall, biotoilets are an innovative and eco-friendly solution for areas without access to traditional toilets or sewage systems. However, they require careful planning, maintenance, and user education to be effective and sustainable.





Prof. Vinod Tare's area of interest is natural resource conservation and regeneration. He currently heads the government think tank, Centre for Ganga River Basin Management and Studies (C-Ganga), and advises the Namami Gange, the government's flagship programme for the conservation of the Ganga.

why Say no to plastic

There are several reasons why we should say no to plastic:

Environmental Impact: Plastic pollution is a major environmental problem. Plastic does not biodegrade and can take hundreds of years to decompose. As a result, plastic waste accumulates in landfills, oceans, and other ecosystems, causing harm to wildlife and the environment.

Health Risks: Many plastics contain harmful chemicals that can leach into food and water and pose health risks to humans and animals. These chemicals have been linked to cancer, birth defects, and other health problems.

Resource Depletion: Plastic is made from petroleum, a non-renewable resource. The production of plastic requires a significant amount of energy and resources, which contributes to climate change and resource depletion.

Economic Costs: Plastic pollution imposes economic costs on society, including the cost of cleaning up litter, the loss of tourism revenue due to polluted beaches and waterways, and the cost of health problems associated with plastic pollution.

Alternatives Exist: There are many alternatives to plastic, such as reusable bags, bottles, and containers made from sustainable materials like bamboo, paper, and glass. By choosing these alternatives, we can reduce our dependence on plastic and minimize its environmental and health impacts.

Overall, saying no to plastic is an important step we can take to protect the environment, human health, and natural resources. By reducing our use of plastic and choosing sustainable alternatives, we can create a healthier and more sustainable future for ourselves and future generations.

Certificate of Completion

This is to certify that

_____ has successfully completed the Value Added Course on Sustainable Environmental Practices offered by Department of Biotechnology, Chhatrapati Shahu Ji Maharaj University, Kanpur from 23rd to 28th February, 2020. This program has equipped the participant with essential knowledge and skills to promote sustainability and environmental responsibility in their personal and professional life.

Dr. Varsha Gupta
Course Director
Department of Biotechnology
Chhatrapati Shahu Ji Maharaj University, Kanpur

COURSE
ON
ASPECTS OF SOLID WASTE MANAGEMENT

24TH-28TH FEBRUARY, 2019

ORGANISED BY
DEPARTMENT OF BIOTECHNOLOGY
CHHATRAPATI SHAHU JI MAHARJ UNIVERSITY
KANPUR

Aspects of Solid Waste Management

Day 1: Introduction to Solid Waste Management: Definition and types of solid waste; Overview of solid waste management practices; Importance of proper solid waste management; Waste Generation and Characterization

Day 2: Factors affecting waste generation; Types and composition of solid waste; Methods for waste characterization; Waste Collection and Transportation

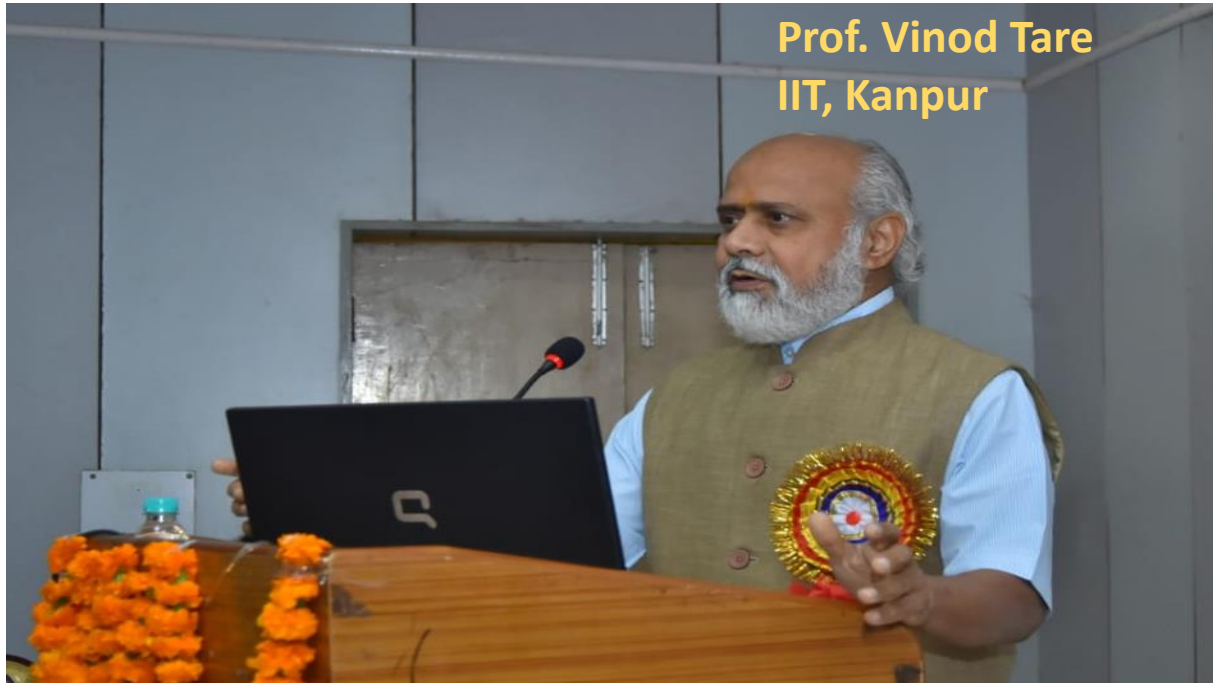
Day 3: Methods for waste collection; Equipment and vehicles for waste transportation; Optimization of waste collection and transportation; Waste Treatment and Disposal

Day 4: Landfills and landfilling practices; Incineration and its environmental impacts; Composting and organic waste management; Recycling and resource recovery; Sustainable Waste Management

Day 5: Waste reduction strategies; Circular economy and waste-to-energy technologies; Sustainable waste management policies and regulations; Public Participation and Education; Public awareness campaigns and social marketing; Case Studies and Best Practices

Name of student	CLASS	Enrol No.	24/02	25/02	26/02	27/02	28/02
Anil Kumar Yadav	M.SC. MIC 2 YEAR	CSJMA16001365011	P	P	P	P	P
Archana Singh	M.SC. MIC 2 YEAR	CSJMA17001365020	P	P	P	P	P
Arpit Tripathi	B.SC. 3 BIOTECHNOLOGY	CSJMA16001310015	P	P	P	P	P
Arsh Azad	M.SC. MBT 2 YEAR	CSJMA16001350005	P	P	P	P	P
Bhavya Mathur	B.SC. 3 BIOTECHNOLOGY	CSJMA16001310018	P	P	P	P	P
Himanshu Pratap Singh	M.SC. BCH 5	CSJMA17001340005	P	P	P	P	P
Himanshu Verma	M.SC. MIC 2 YEAR	CSJMA17001365023	P	P	P	P	P
Jainul Ansari	B.SC. 3 BIOTECHNOLOGY	CSJMA	P				
Janhavi Soni	B.SC. 3 BIOTECHNOLOGY	CSJMA1601310026	P	P	P	P	P
Kalpana Upadhyay	M.SC. MIC 2 YEAR	CSJMA14000513605	P	P	P	P	P
Km Twinkle Singh	B.SC. 3 BIOTECHNOLOGY	CSJMA	P	A	A	A	A
Km Urbashi	M.SC. MIC 2 YEAR	CSJMA14000438800	P	P	P	P	P
Kratika Sharma	M.SC. MIC 2 YEAR		A	A	A	A	A
Mritunjay Kumar Chauhan	M.SC. MIC 2 YEAR	CSJMA16001365005	P	P	P	P	P
Pramod Yadav	B.SC. 3 BIOTECHNOLOGY	CSJMA16001310045	P	P	P	P	P
Prashant Kumar Tiwari	M.SC. MBT 2 YEAR	CSJMA17001350015	P	P	P	P	P
Princi Sharma	M.SC. MIC 2 YEAR	CSJMA13000478191	P	P	P	P	P
Priya Bansal	B.SC. 3 BIOTECHNOLOGY	CSJMA16001310050	P	P	P	P	P
Priya Singh	B.SC. 3 BIOTECHNOLOGY	CSJMA16001310051	P	P	P	P	P
Priyanka Jha	B.SC. 3 BIOTECHNOLOGY	CSJMA16001310053	P	P	P	P	P
Rajpriyaa Singh	M.SC. MIC 2 YEAR	CSJMA	P	P	A	A	A
Rishika Dixit	B.SC. 3 BIOTECHNOLOGY	CSJMA16001310058	P	P	P	P	P
Ritik Saini	M.SC. MBT 2 YEAR		P	A	A	A	A
Rohit Kumar Singh	M.SC. MBT 2 YEAR	CSJMA17001350017	P	P	P	P	P
Sarita Devi	M.SC. MBT 2 YEAR		P	A	A	A	A
Sauaiya Kalam	B.SC. 3 BIOTECHNOLOGY		P	A	A	A	A
Saumya Dwivedi	M.SC. MBT 2 YEAR	CSJMA17001350018	P	P	P	P	P
Shamli Tripathi	B.SC. 3 BIOTECHNOLOGY	CSJMA16001310065	P	P	P	P	P
Shephali	M.SC. MBT 2 YEAR	CSJMA17001350019	P	P	P	P	P
Shivangi Sharma	B.SC. 3 BIOTECHNOLOGY	CSJMA16001310070	P	P	P	P	P
Shivani Pal	M.SC. MBT 2 YEAR	CSJMA14000503564	P	P	P	P	P
Shivansh Gaur	B.SC. 3 BIOTECHNOLOGY	CSJMA16001310074	P	P	P	P	P
Shubham Singh	M.SC. MBT 2 YEAR		P	P	P	P	P
Sunil Kumar	M.SC. MBT 2 YEAR	CSJMA17001350020	P	P	P	P	P
Surabhi Gupta	B.SC. 3 BIOTECHNOLOGY	CSJMA16001310079	P	P	P	P	P
Urvashi Tiwari	B.SC. 3 BIOTECHNOLOGY	CSJMA16001310084	P	P	P	P	P
Varsha Mishra	B.SC. 3 BIOTECHNOLOGY	CSJMA16001310089	P	P	P	P	P
Vikash Raghuvanshi	B.SC. 3 BIOTECHNOLOGY	CSJMA16001310090	P	P	P	P	P
Vineeta Singh	M.SC. MIC 2 YEAR		P	P	P	P	P
Waseem Siddique	M.SC. MBT 2 YEAR	CSJMA17001350022	P	P	P	P	P

ASPECTS OF SOLID WASTE MANAGEMENT



Model making by students

Solid waste management involves a series of processes to collect, transport, dispose or recycle waste generated by households, businesses, industries, and institutions. Here are some aspects of solid waste management:

Waste collection: Waste collection is the first step in solid waste management. It involves the collection of waste from households, commercial areas, and industries. Waste is usually collected by waste collectors using a variety of methods, such as door-to-door collection, street sweeping, and public waste bins.

Waste transportation: Once waste is collected, it needs to be transported to a waste treatment facility. Waste is transported by trucks, trains, and other vehicles. The transportation of waste must be done safely and efficiently to avoid environmental pollution and public health risks.

Waste treatment: Waste treatment is the process of converting waste into a form that is safe for disposal or reuse. There are several waste treatment methods, including landfilling, incineration, composting, and recycling.

Landfilling: Landfilling is the most common waste disposal method, where waste is buried in landfills. However, landfilling has environmental risks, such as groundwater contamination and methane gas emissions.

Incineration: Incineration is a waste treatment method that involves burning waste at high temperatures. It is an effective method for reducing the volume of waste but can also generate air pollution.

Composting: Composting is a natural process of breaking down organic waste into a nutrient-rich material that can be used as fertilizer.

Recycling: Recycling is the process of converting waste into new products. Recycling helps reduce the amount of waste in landfills and conserves natural resources.

Waste reduction and source separation: Waste reduction and source separation involve minimizing the amount of waste generated at the source. This includes reducing packaging waste and separating recyclable materials from non-recyclable materials.

Public education and awareness: Public education and awareness are essential aspects of solid waste management. Educating the public about waste reduction, recycling, and proper waste disposal can help reduce the amount of waste generated and improve waste management practices.

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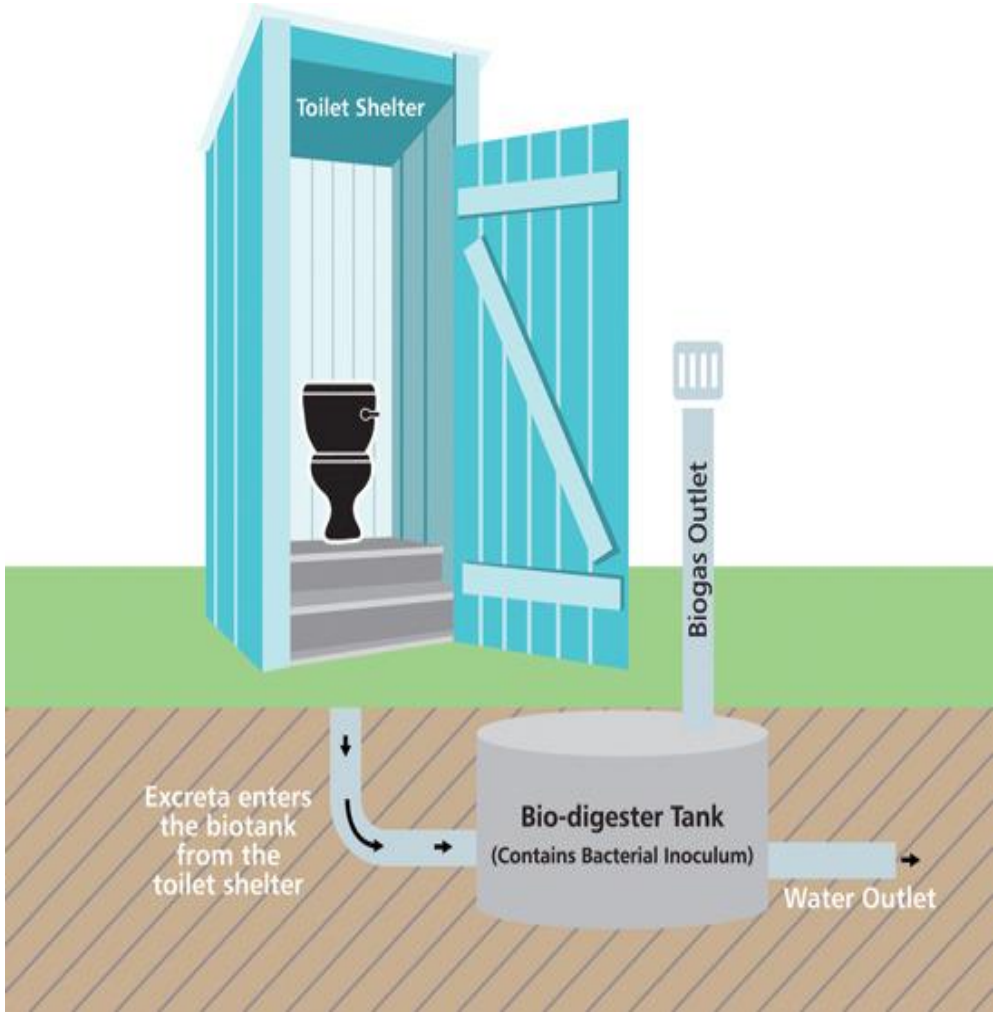

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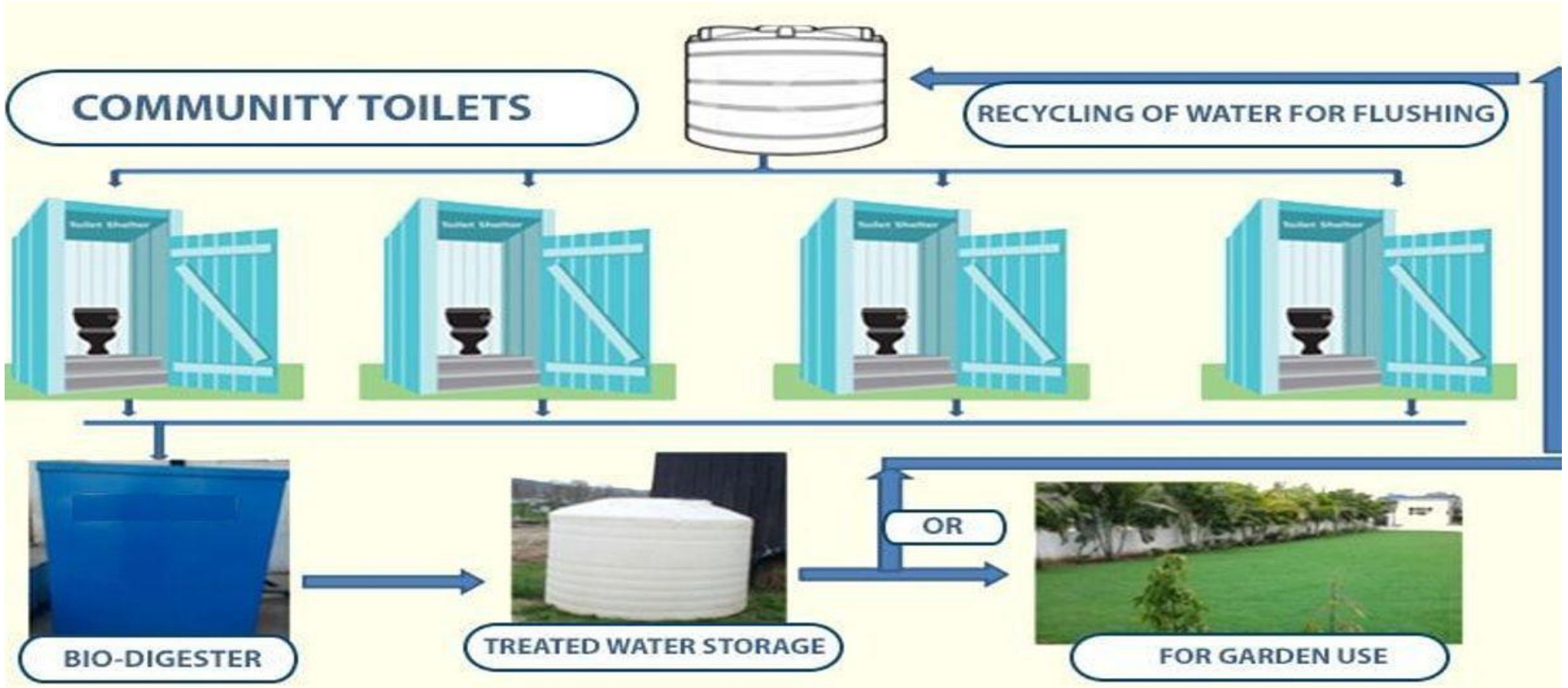

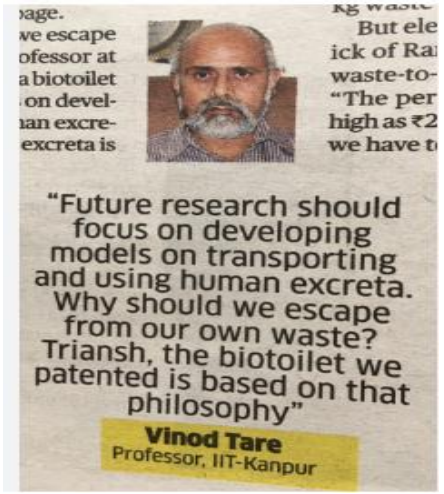

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CSJMU/DBT/ASWM/_____

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Dr. Varsha Gupta
Course Director, Biotechnology Dept.
Chhatrapati Shahu Ji Maharaj University, Kanpur

COURSE ON BIOFUEL TECHNOLOGIES

11^{TH} -15^{TH} MARCH, 2019

ORGANISED BY
DEPARTMENT OF BIOTECHNOLOGY
CHHATRAPATI SHAHU JI MAHARJ UNIVERSITY
KANPUR

Biofuel technologies are a type of renewable energy that is derived from biomass. Biomass is organic matter that can be used to create energy. Biofuels can be made from a variety of sources, including plant matter, animal waste, and algae.

There are two main types of biofuels: first-generation and second-generation biofuels. First-generation biofuels are made from food crops such as corn, sugarcane, and soybeans. Second-generation biofuels are made from non-food sources such as agricultural and forestry residues, energy crops, and municipal solid waste.

There are several different biofuel technologies that are used to produce biofuels. Some of the most common technologies include:

1.Biodiesel: Biodiesel is a type of biofuel that is made by chemically reacting vegetable oil or animal fat with an alcohol. The resulting fuel can be used in diesel engines.

2.Ethanol: Ethanol is a type of biofuel that is made by fermenting sugars or starches from corn, sugarcane, or other crops. Ethanol can be blended with gasoline to create a biofuel blend.

3.Biogas: Biogas is a type of biofuel that is made by capturing methane gas that is produced by the decomposition of organic matter such as animal waste, food waste, and sewage.

4.Pyrolysis: Pyrolysis is a process that involves heating biomass in the absence of oxygen to produce a liquid bio-oil that can be used as a fuel.

5.Gasification: Gasification is a process that involves heating biomass in the presence of a gasifying agent such as steam or oxygen to produce a synthetic gas that can be used to produce electricity or other forms of energy.

Biofuels have the potential to be a sustainable and renewable source of energy that can help reduce greenhouse gas emissions and dependence on fossil fuels. However, the production of biofuels can also have negative environmental impacts, such as land-use changes and the use of large amounts of water and fertilizer. It is important to carefully consider the environmental and social impacts of biofuel production before scaling up their use.

UNIT I - OVERVIEW OF BIOFUELS 5hrs .

Generation of bio-fuels − Development of biological conversion technologies − Integration of bio-fuels into bio-refineries − Energy security and supply − Environmental sustainability of bio-fuels − Economic sustainability of bio-fuels.

UNIT II – BIODIESEL 5hrs .

Biodiesel − Microorganisms and raw materials used for microbial Oil production − Treatment of the feedstock prior to production of the Biodiesel − Current technologies of biodiesel production − Purification of biodiesel; Industrial production of biodiesel − Biodiesel production from single cell oil.

UNIT III- BIOETHANOL 5hrs.

Bioethanol – Properties – Feed-stocks − Process technology − Pilot plant for ethanol production from lignocellulosic feedstock − Environmental aspects of ethanol as a biofuel.

UNIT IV- BIOMETHANE AND BIOHYDROGEN 5hrs .

Biomethanol − Principles, materials and feedstocks − Process technologies and techniques − Advantages and limitations − Biological hydrogen production methods − Fermentative hydrogen production − Hydrogen economy − Advantages and limitations.

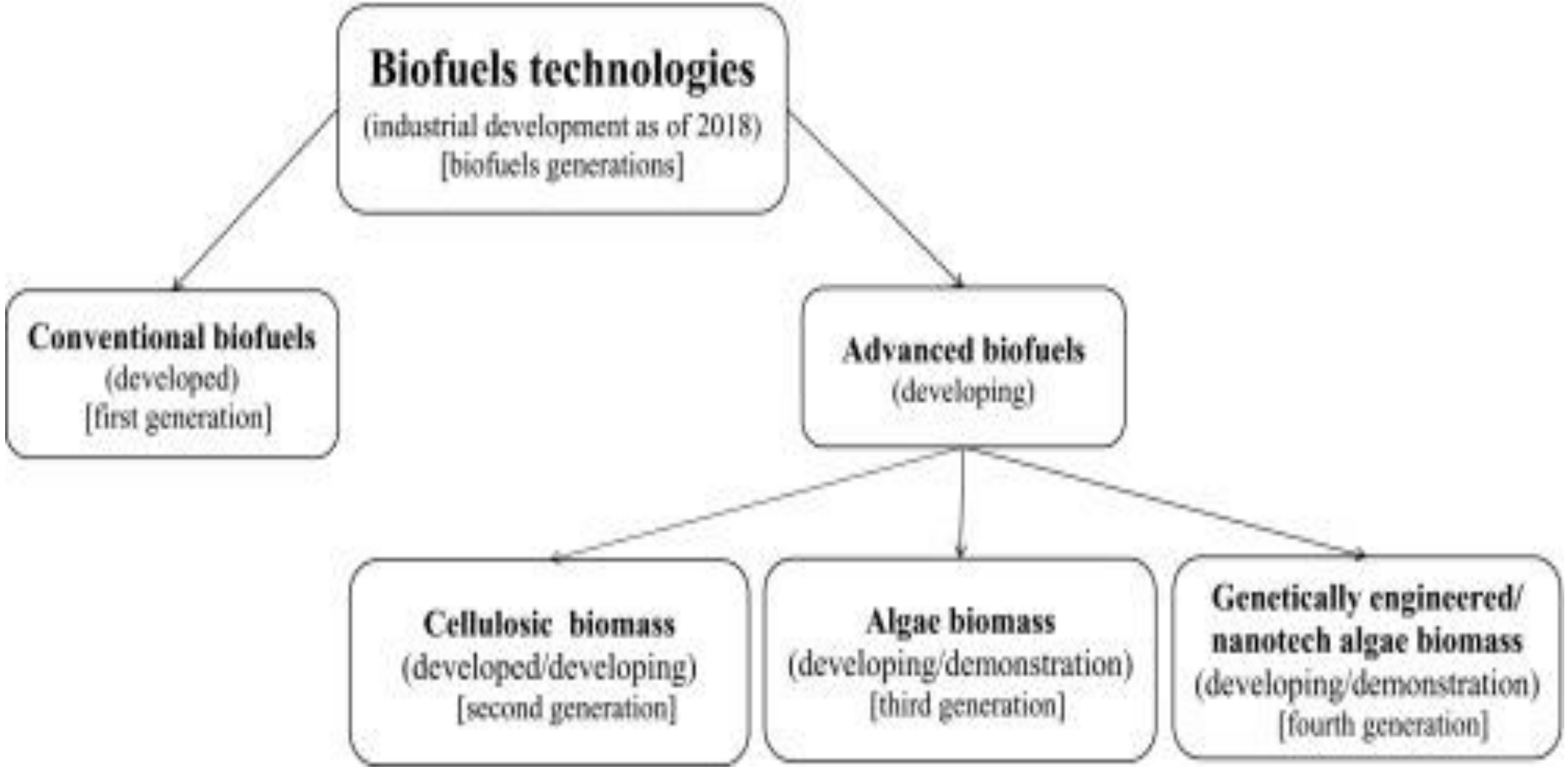
UNIT V- OTHER BIOFUELS 5hrs .

Biobutanol production − Principles, materials and feedstocks − Process technologies – Biopropanol – Bioglycerol − Production of bio-oils via catalytic pyrolysis − Life-Cycle environmental impacts of biofuels and Co-products.

Name	Class	Enrol. No.	11/3/2019	12/03/2019	13/03/2019	14/03/2019	15/03/2019
Abhishek Gupta	M.Sc. BCH 3	CSJMA17001340002	A	A	A	A	P
ABHISHEK TRIPATHI	M.Sc. MBT 2 year	CSJMA17001350006	P	P	P	P	P
ADITYA SINGH	B.Sc. 3 Biotechnology	CSJMA16001310002	P	P	P	P	P
ADITYA SINGH SENGAR	B.Sc. 3 Biotechnology	CSJMA16001310003	P	P	P	P	P
ALKA SINGH	B.Sc. 3 Biotechnology	CSJMA16001310007	P	A	A	A	A
AMRITA BAJPAI	B.Sc. 3 Biotechnology	CSJMA16001310009	P	P	P	P	P
ANUBHAVI YADAV	B.Sc. 3 Biotechnology	CSJMA16001310013	P	P	P	P	P
AROHI YADAV	B.Sc. 3 Biotechnology	CSJMA16001310014	P	P	P	P	P
ASHISH YADAV	B.Sc. 3 Biotechnology	CSJMA16001310016	P	P	P	P	P
DEEKSHA YADAV	B.Sc. 3 Biotechnology	CSJMA16001310019	P	P	P	P	P
EISHA VERMA	B.Sc. 3 Biotechnology	CSJMA16001310021	P	P	P	P	P
HARSHIT YADAV	B.Sc. 3 Biotechnology	CSJMA16001310024	P	P	P	P	P
LUBNA RIZVI	B.Sc. 3 Biotechnology	CSJMA16001310029	P	P	P	P	P
MAHIMA PANDEY	B.Sc. 3 Biotechnology	CSJMA16001310030	P	P	P	P	P
MONIKA SINGH	B.Sc. 3 Biotechnology	CSJMA16001310033	A	A	A	A	P
NEHA PARVEEN	B.Sc. 3 Biotechnology	CSJMA16001310037	P	P	P	P	P
NIKITA MISHRA	B.Sc. 3 Biotechnology	CSJMA16001310039	P	P	P	P	P
PRATISTHA PANDEY	B.Sc. 3 Biotechnology	CSJMA16001310048	P	P	P	P	P
PRAVEEN RAJPUT	B.Sc. 3 Biotechnology	CSJMA16001310049	P	P	P	P	P
ROHIT VERMA	B.Sc. 3 Biotechnology	CSJMA	P	P	P	P	P
SAHIBA WARSI	B.Sc. 3 Biotechnology	CSJMA16001310060	P	A	A	A	A
SAIF RAINY	B.Sc. 3 Biotechnology	CSJMA14001310108	P	P	P	P	P
SAMIKSHA GUPTA	B.Sc. 3 Biotechnology	CSJMA16001310061	P	P	P	P	P
SAMIM ALI	B.Sc. 3 Biotechnology	CSJMA16001310062	P	P	P	P	P
SHASHANK KASHYAP	B.Sc. 3 Biotechnology	CSJMA16001310066	P	P	P	P	P
SHIVAM SINGH	B.Sc. 3 Biotechnology	CSJMA16001310068	P	P	P	P	P

SHIVANGI VERMA	B.Sc. 3 Biotechnology	CSJMA16001310071	P	P	P	P	P
SHWETA CHAUDHARY	B.Sc. 3 Biotechnology	CSJMA16001310077	P	P	P	P	P
TANISHKA YADAV	B.Sc. 3 Biotechnology	CSJMA16001310080	P	P	P	P	P
UJJWAL SHARMA	B.Sc. 3 Biotechnology	CSJMA16001310083	P	P	P	P	P
VAISHNAVI TIWARI	B.Sc. 3 Biotechnology	CSJMA16001310086	P	P	P	P	P
VIKASH GAUTAM	B.Sc. 3 Biotechnology	CSJMA16001310092	P	P	P	P	P
VIVEK MANI TRIPATHI	B.Sc. 3 Biotechnology	CSJMA16001310094	P	P	P	P	P
Ali Hamza	M.Sc. BCH 2	CSJMA17001340003	P	A	A	A	A
Vishal Gupta	M.Sc. BCH 4	CSJMA17001340006	P	A	A	A	A
AFTAB AHMAD	M.Sc. MBT 2 year	CSJMA14000459209	P	P	P	P	P
AMANDEEP MISHRA	M.Sc. MBT 2 year	CSJMA13000462387	P	P	P	P	P
AMARJEET YADAV	M.Sc. MBT 2 year	CSJMA17001350007	P	P	P	P	P
APARNA CHAUDHARY	M.Sc. MBT 2 year	CSJMA14000491791	P	P	P	P	P
DAYARAM SINGH	M.Sc. MBT 2 year	CSJMA17001350008	P	P	P	P	P
JITENDRA KUMAR GUPTA	M.Sc. MBT 2 year		P	P	P	P	P
MANISHA	M.Sc. MBT 2 year		P	P	P	P	P
MEHFOOZA ASHKARA	M.Sc. MBT 2 year	CSJMA17001350011	P	A	A	A	A
PRASHANT KUMAR TIWARI	M.Sc. MBT 2 year	CSJMA17001350015	P	P	P	P	P
PRIYANKA KUMARI	M.Sc. MBT 2 year		P	P	P	P	P
RICHA PAL	M.Sc. MBT 2 year		P	P	P	P	P
RISHANSI PAL	M.Sc. MBT 2 year	CSJMA14000503327	P	P	P	P	P
ROHIT KUMAR SINGH	M.Sc. MBT 2 year	CSJMA17001350017	P	P	P	P	P
UDAI PRAKASH KHARE	M.Sc. MBT 2 year	CSJMA09000409901	P	P	P	P	P
AKANSHA DWIVEDI	M.Sc. MIC 2 year	CSJMA14000500391	P	P	P	P	P
AKHAND PRATAP CHAUHAN	M.Sc. MIC 2 year	CSJMA17001365014	A	A	A	A	P
ANIL KUMAR YADAV	M.Sc. MIC 2 year	CSJMA16001365011	P	P	P	P	P
ANTARA CHATTERJEE	M.Sc. MIC 2 year	CSJMA17001428003	P	P	P	P	P
ANUJ KUMAR	M.Sc. MIC 2 year	CSJMA17001365018	P	P	P	P	P
APOORWA SRIVASTAVA	M.Sc. MIC 2 year	CSJMA17001365019	A	A	A	A	P
ESHITA GUPTA	M.Sc. MIC 2 year	CSJMA17001365015	P	P	P	P	P
JYOTIMA GAUTAM	M.Sc. MIC 2 year	CSJMA13000505241	P	P	P	P	P
KHUSHBU SHARMA	M.Sc. MIC 2 year	CSJMA17001365024	P	A	A	A	A
MAMTA PANDEY	M.Sc. MIC 2 year	CSJMA17001365027	P	P	P	P	P
MAMTA SHUKLA	M.Sc. MIC 2 year	CSJMA14000523299	P	P	P	P	P
MANJU SINGH	M.Sc. MIC 2 year	CSJMA14000440234	P	P	P	P	P
NIYATI SINGH	M.Sc. MIC 2 year	CSJMA11000434555	P	P	P	P	P
PRAKSHALYA MISHRA	M.Sc. MIC 2 year	CSJMA14000511741	P	P	P	P	P
RAGHVENDRA SINGH	M.Sc. MIC 2 year		P	P	P	P	P
RAHUL MAURYA	M.Sc. MIC 2 year	CSJMA17001365031	P	A	A	A	A
SHALINI SINGH	M.Sc. MIC 2 year	CSJMA13000495045	P	P	P	P	P
SHALINI SINGH	M.Sc. MIC 2 year	CSJMA14000511170	P	P	P	P	P
SHIKHA KUSHWAHA	M.Sc. MIC 2 year		P	P	P	P	P
SUBHRA TRIPATHI	M.Sc. MIC 2 year	CSJMA17001365033	A	A	A	A	A
YOGITA GUPTA	M.Sc. MIC 2 year	CSJMA13000466503	P	P	P	P	P

TRAINING IN BIOGAS PRODUCTION


Biofuels technologies
(industrial development as of 2018)
[biofuels generations]
Conventional biofuels
(developed)
[first generation]
Advanced biofuels
(developing)
Cellulosic biomass
(developed/developing)
[second generation]
Algae biomass
(developing/demonstration)
[third generation]
Genetically engineered/
nanotech algae biomass
(developing/demonstration)
[fourth generation]

CERTIFICATE OF COMPLETION

CSJMU/BT/BFT/_____

THIS IS TO CERTIFY THAT _____ HAS SUCCESSFULLY COMPLETED THE PROGRAM ON BIOFUEL TECHNOLOGIES CONDUCTED BY DEPARTMENT OF BIOTECHNOLOGY, CHHATRAPATI SHAHU JI MAHARAJ UNIVERSITY, KANPUR FROM 11TH TO 15TH MARCH, 2019.

THIS PROGRAM WAS DESIGNED TO PROVIDE PARTICIPANTS WITH AN IN-DEPTH UNDERSTANDING OF VARIOUS BIOFUEL TECHNOLOGIES, THEIR APPLICATIONS, AND THEIR IMPACT ON THE ENVIRONMENT AND SOCIETY.

DR. VARSHA GUPTA
PROGRAM COORDINATOR

रोजाना 10 टन कचरे से बनेगी जैविक गैस

जासं, कानपुर : छत्रपति शाहू जी महाराज विश्वविद्यालय में रोजाना 10 टन कचरे से जैविक गैस बनाने की इकाई स्थापित की गई है। शुक्रवार को महापौर प्रमिला पांडेय व कुलपति प्रो. नीलिमा गुप्ता ने संतरे के छिलके को फीड कंटेनर में डालकर इसकी शुरूआत की। इस इकाई में डाइजेस्टर व गैस होल्डर लगे हुए हैं, जो ईंधन का निर्माण करते हैं। विवि परिसर में दो हजार से अधिक छात्र-छात्राओं सहित शिक्षक व कर्मचारी आवास में रहने वालों की संख्या एक हजार से अधिक है। यहां से रोजाना 400 से 450 टन अपशिष्ट निकलता है। इसका इस्तेमाल जैविक गैस इकाई में किया जाएगा। इस गैस से छात्रावास की मेस में खाना पकेगा। इसके अलावा इसे खाद के रूप में इस्तेमाल किया जाएगा। जैविक गैस इकाई स्थापित किए जाने से पहले इसका छोटा प्रारूप बनाकर गैस की गुणवत्ता की जांचने के बाद इसे पूरी तरह शुरू कर दिया गया है। इस मौके पर अकादमिक अधिष्ठाता प्रो. संजय स्वर्णकार, कुलसचिव डॉ. अनिल कुमार यादव समेत, डॉ. आरसी कटियार, प्रो. वर्षा गुप्ता, चीफ प्रॉक्टर डॉ. संदीप सिंह, डॉ. बीपी सिंह, डॉ. रशि अग्रवाल मौजूद रहे।

नववर्ष के शुभागमन के साथ ही छत्रपति शाहू जी महाराज विश्वविद्यालय में 01 जनवरी 2021 को विश्वविद्यालय प्रागंण में महापौर श्रीमती प्रमिला पाण्डेय एवं कुलपति प्रो0 नीलिमा गुप्ता द्वारा जैविक गैस (Biomethanation Unit) इकाई का शुभआरम्भ संतरे के छिलके को feed कंटेनर में डाल कर सिस्टम चालू किया इस शाखा में अपशिष्ट से बायो गैस बनायी जायेगी इस बायोगैस में डाइजैसटर और गैस होल्डर है जो ईधन का निमार्ण करता है। यह इकाई लगभग 10 टन कचरे को बायोगैस में बनाने में सक्षम है। विश्वविद्यीलय परिसर में आवस एवं छात्रावासो से लगभग 400 से 450 किग्रा अपशिष्ट प्रतिदिन निकलता है। इस विश्वविद्यालय उर्जा का निमार्ण कर सकेगा। महिला छात्रावास में पाइप लाइन के सप्लाई के साथ ही सिलण्डेर की आवश्यकता समाप्त हो जायेगी एवं इस प्रक्रिया के उपरान्त बचे हुये बेस्ट मटेरियल से खाद बनायी जा सकेगी इससे प्रादूषण नहीं होता है एवं खाद फसलो के काम आ जाती है।

- **Biogas is Eco-Friendly**

Biogas is a renewable, source of energy. It is generated through biodigestion and is non-polluting; reduces greenhouse emissions (i.e. reduces the greenhouse effect).

Gas is prepared from waste as a form of energy is actually a great way to combat global warming.

Production process of biogas is natural, without input for energy and the raw materials used in the production of biogas are organic waste.

Biogas Generation Reduces Soil and Water Pollution

Increasing landfills are big problem for environment

And require large spaces, biogas reduces the

आत्मनिर्भरता प्लांट बनकर तैयार, एक जनवरी से शुरू हो जाएगी प्रक्रिया, प्रतिदिन 100 किलो गैस बनाने का लक्ष्य

सीएसजेएमयू में अब बायो गैस से पकेगा भोजन

जागरण संवाददाता, कानपुर : छत्रपति शाहू जी महाराज विवि (सीएसजेएमयू) नए वर्ष से परिसर में बायो गैस बनाएगा। इसके लिए प्लांट बनकर तैयार हो गया है। जैविक कचरे से प्रतिदिन सौ किलो गैस बनाने का लक्ष्य है। इसका सबसे बड़ा लाभ यह होगा कि विवि प्रशासन को मेस में खाना बनवाने के लिए गैस नहीं खरीदनी पड़ेगी। यहां रहने वाले शिक्षकों व छात्रों के लिए इसी गैस से खाना पकेगा।

विश्वविद्यालय के पुराने कैंपस स्कूल में बनाया गया यह बायो गैस प्लांट एक दिन में दस टन बायो कचरा से बायो गैस बनाने की क्षमता रखता है। रोजाना चार सौ किलो बायो कचरा विवि की मेस व छात्रावास से निकलता है। विश्वविद्यालय में दो पुरुष व चार महिला छात्रावास है, जिनमें छह सौ छात्र व पांच सौ छात्राएं रहती हैं। बायो गैस का इस्तेमाल मेस में करने के साथ बचे

400 किलो बायो कचरा निकलता है विवि की मेस व छात्रावास से

हुए वेस्ट का उपयोग बागवानी में किया जाएगा। एक जनवरी से फलों के छिलकों के साथ यह प्लांट शुरू हो जाएगा। कुलसचिव डॉ. अनिल कुमार यादव ने बताया कि मेस में भोजन बनने के दौरान निकलने वाले बायो वेस्ट से शुरुआत में गैस बनाई जाएगी। उसके बाद बाहर से बायो वेस्ट लाया जाएगा। इससे विवि को बाहर से गैस नहीं खरीदनी होगी।

आरटीई से प्रवेश पर मिलेंगे 10 हजार रुपये

जागरण संवाददाता, कानपुर: अगर आपके बच्चे का प्रवेश शिक्षा का अधिकार अधिनियम (आरटीई) के तहत निजी स्कूल में हुआ है तो सरकार 10 हजार रुपये की सहायता राशि देगी। इसमें पांच हजार रुपये बच्चों की पढ़ाई के लिए, जबकि पांच हजार रुपये स्कूल संचालक या प्रधानाचार्य को फीस के रूप में दिए जाएंगे।

इसके लिए बीएसए कार्यालय में उन बच्चों का ब्योरा तैयार किया जा रहा है, जिनका इस सत्र में प्रवेश हुआ है।

बीएसए का दावा 1500 से अधिक हुए प्रवेश : बीएसए डॉ. पवन तिवारी का दावा है कि इस सत्र में जिले के अंदर 1500 से अधिक प्रवेश हुए हैं।

निजी स्कूलों में तमाम आवेदन लटके

अभी तमाम निजी स्कूलों में आरटीई से होने वाले दाखिलों के आवेदन लटके हुए हैं। कुछ दिनों पहले जिलाधिकारी आलोक तिवारी ने उन स्कूल संचालकों के खिलाफ कड़ी कार्रवाई के निर्देश दिए थे, जो आरटीई से प्रवेश लेने में आनाकानी कर रहे हैं।

- Biogas Generation Produces Organic Fertilizer
- Low-Cost Technology
- Encourages A

विवि में कूड़े से बनने लगी पीएनजी, खाद

संवाद न्यूज एजेंसी

कानपुर। छत्रपति शाहू जी महाराज विश्वविद्यालय में कूड़े से पीएनजी (पाइप्ड नेचुरल गैस) और खाद बनाने वाली जैविक गैस इकाई का शुक्रवार को महापौर प्रमिला पांडेय और कुलपति प्रो. नीलिमा गुप्ता ने शुभारंभ किया। इस इकाई में विवि परिसर के आवासों और छात्रावासों से निकलने वाले कूड़े से गैस और जैविक खाद बनाई जाएगी।

महापौर ने कहा कि विवि के इस काम में नगर निगम पूरा सहयोग करेगा। बता दें कि यह इकाई 10 टन कचरे से बायोगैस (मीथेन) बनाने में सक्षम है। कुलपति प्रो. नीलिमा गुप्ता ने बताया कि विवि का यह प्रयास शहर के लिए नजीर बन कर उभरेगा। डीन अकादमिक डॉ. संजय स्वर्णकार ने बताया परिसर में रोजाना 400-450 किलोग्राम कूड़ा निकलता है। इस मौके पर कुलसचिव डॉ. अनिल यादव, प्रो. वर्षा गुप्ता, प्रो. आरसी कटियार आदि मौजूद रहे।

महापौर प्रमिला पांडेय व कुलपति प्रो. नीलिमा गुप्ता ने शिलापट का अनावरण कर जैविक गैस इकाई का उद्घाटन किया। संवाद

Healthy Cooking Alternative For Developing Areas

Biogas generators save women and children from the daunting task of firewood collection. Its usage as compared to open fire, prevents the family from being exposed to smoke in the kitchen preventing deadly respiratory diseases.

सौ किलो बायो कचरे से बनेगा एक दिन का खाना

दैनिक जागरण के सहयोग से सीएसजेएमयू में आयोजित हुआ पहला 'एंटरप्रेन्योरियल कॉन्क्लेव'

In Association with

दैनिक जागरण

जागरण संवाददाता, कानपुर : छत्रपति शाहू जी महाराज विश्वविद्यालय (सीएसजेएमयू) के एमएससी बायोटेक के छात्र-छात्राओं ने फल, सब्जी व भोजन से निकलने वाले कचरे से सीएनजी बनाने की तकनीक खोजी है। उन्होंने एक ऐसी स्माल स्केल सीएनजी यूनिट विकसित की है जो एक किलो बायो कचरे से 250 ग्राम सीएनजी बनाती है। इस प्रक्रिया में निकलने वाले वेस्ट से बायो खाद भी बनाई जा सकती है। बड़ी मशीन से सौ किलो बायो कचरे से 25 किलो सीएनजी

सीएसजेएमयू में हुए पहले एंटरप्रेन्योरियल कॉन्क्लेव में प्रथम पुरस्कार प्राप्त करने वाले आशुतोष पटेल, उमेश विश्वकर्मा, हरजीत सिंह व प्रकाश की टीम, द्वितीय पुरस्कार प्राप्त करने वाले रवन पांडेय व तृतीय पुरस्कार प्राप्त करने वाली दो टीमों के छात्र अनुराग वर्मा व मो. साकिब व मो. सद्दाम अंसारी की टीम।

इससे पूर्व विश्वविद्यालय इसका छोटा प्रारूप बनाकर गैस की गुणवत्ता आदि की जांच कर ली थी

WOMEN'S HEALTH AND HYGIENE

4th-8TH MARCH, 2019

ORGANISED BY
DEPARTMENT OF BIOTECHNOLOGY
CHHATRAPATI SHAHU JI MAHARJ UNIVERSITY
KANPUR

WOMEN HEALTH AND HYGIENE

UNIT I. INTRODUCTION TO HEALTH & WELLNESS (3-6 HRS)

Define and differentiate health and wellness, Importance of health and wellness Education; Local, demographic, societal issues and factors affecting health and wellness.

UNIT 2. DIET AND NUTRITION FOR WOMEN HEALTH AND WELLNESS (6 HRS)

Balanced diet, Essential components of balanced diet for healthy living with specific reference to the role of carbohydrates, proteins, fats, vitamins & minerals, Malnutrition, under nutrition and over nutrition, Processed foods and unhealthy eating habits, Body systems and common diseases.

UNIT 3. FACTORS EFFECTING HEALTH (6 HRS)

Sedentary lifestyle and its risk of disease, Stress, anxiety, and depression, Factors affecting mental health, Identification of suicidal tendencies, Substance abuse (Drugs, Cigarette, Alcohol), de-addiction, counselling and rehabilitation.

UNIT 4. AGING AND HEALTH AND WELLNESS OF WOMEN (6 HRS)

Postural care; Factors affecting mental health,; Cancer and Polycystic Ovarian Syndrome

UNIT 5. MANAGEMENT OF HEALTH AND WELLNESS. (6 HRS)

Types of Physical Fitness and its Health benefits, prevention and management through exercise, Spirituality and mental health, Role of Yoga, asanas and meditation in maintaining health and wellness, Role of sleep in maintenance of physical and mental health.

NAME	BATCH	ENROL. NO.	4-Mar	5-Mar	6-Mar	7-Mar	8-Mar
KM UMMAI AIMAN SIDDIQUE	M.Sc. MBT 1 year		P	P	P	P	P
NEHA SINGH	M.Sc. MBT 1 year		P	P	P	P	P
RAJANI SINGH	M.Sc. MBT 1 year	CSJMA18001350018	P	P	P	P	P
ABHILASHA SINGH	M.Sc. MBT 1 year		P	P	P	P	P
KM ROHINI YADAV	M.Sc. MBT 1 year		P	P	P	P	P
SHWETA SINGH	M.Sc. MBT 1 year	CSJMA18001350015	P	P	P	P	P
KAJAL DWIVEDI	M.Sc. MBT 1 year	CSJMA18001350013	P	P	P	P	P
SONAM MAURYA	M.Sc. MBT 1 year	CSJMA18001350019	P	A	A	A	A
AKANSHA PANDEY	M.Sc. MBT 1 year		P	P	P	P	P
ROZY KHATOON	M.Sc. MBT 1 year		P	P	P	P	P
TANIYA SRIVASTAVA	M.Sc. MBT 1 year	CSJMA18001350021	P	A	A	A	A
MERCY SARAL	M.Sc. MBT 1 year	CSJMA18001350017	P	P	P	P	P
AKANKSHA JHA	M.Sc. MBT 1 year	CSJMA18001350006	P	P	P	P	P
POOJA SINGH	M.Sc. MBT 1 year		P	P	P	P	P
SHREYA	M.Sc. MBT 1 year		P	A	A	A	A
SHAMLI TRIPATHI	B.Sc. 3 Biotechnology	CSJMA16001310065	P	P	P	P	P
SAUAIYA KALAM	B.Sc. 3 Biotechnology		P	A	A	A	A
PRIYA SINGH	B.Sc. 3 Biotechnology	CSJMA16001310051	P	P	P	P	P
PRIYANKA JHA	B.Sc. 3 Biotechnology	CSJMA16001310053	P	P	P	P	P
PRINCI SHARMA	M.Sc. MIC 2 year	CSJMA13000478191	P	A	A	A	A
BHAVYA MATHUR	B.Sc. 3 Biotechnology	CSJMA16001310018	P	P	P	P	P
VINEETA SINGH	M.Sc. MIC 2 year		P	P	P	P	P
SHEPHALI	M.Sc. MBT 2 year	CSJMA17001350019	P	P	P	P	P
ARCHANA SINGH	M.Sc. MIC 2 year	CSJMA17001365020	P	P	P	P	P
RAJPRIYAA SINGH	M.Sc. MIC 2 year	CSJMA	P	P	P	P	P
KM TWINKLE SINGH	B.Sc. 3 Biotechnology	CSJMA	P	A	A	A	A
URVASHI TIWARI	B.Sc. 3 Biotechnology	CSJMA16001310084	P	P	P	P	P
SHIVANGI SHARMA	B.Sc. 3 Biotechnology	CSJMA16001310070	P	P	P	P	P
SAUMYA DWIVEDI	M.Sc. MBT 2 year	CSJMA17001350018	P	P	P	P	P
VARSHA MISHRA	B.Sc. 3 Biotechnology	CSJMA16001310089	P	P	P	P	P
JANHAVI SONI	B.Sc. 3 Biotechnology	CSJMA1601310026	P	P	P	P	P
RISHIKA DIXIT	B.Sc. 3 Biotechnology	CSJMA16001310058	P	P	P	P	P
KALPANA UPADHYAY	M.Sc. MIC 2 year	CSJMA14000513605	P	P	P	P	P
KM URBASHI	M.Sc. MIC 2 year	CSJMA14000438800	P	P	P	P	P
SARITA DEVI	M.Sc. MBT 2 year		P	P	P	P	P
KRATIKA SHARMA	M.Sc. MIC 2 year		P	P	P	P	P
PRIYA BANSAL	B.Sc. 3 Biotechnology	CSJMA16001310050	P	P	P	P	P
SHIVANI PAL	M.Sc. MBT 2 year	CSJMA14000503564	P	P	P	P	P
SURABHI GUPTA	B.Sc. 3 Biotechnology	CSJMA16001310079	P	P	P	P	P
SUBHRA TRIPATHI	M.Sc. MIC 2 year	CSJMA17001365033	P	A	A	A	A
KHUSHBU SHARMA	M.Sc. MIC 2 year	CSJMA17001365024	P	P	P	P	P
AMRITA BAJPAI	B.Sc. 3 Biotechnology	CSJMA16001310009	P	P	P	P	P
PRATISTHA PANDEY	B.Sc. 3 Biotechnology	CSJMA16001310048	P	P	P	P	P
NIKITA MISHRA	B.Sc. 3 Biotechnology	CSJMA16001310039	P	P	P	P	P

ANUBHAVI YADAV	B.Sc. 3 Biotechnology	CSJMA16001310013	P	P	P	P	P
MEHFOOZA ASHKARA	M.Sc. MBT 2 year	CSJMA17001350011	P	P	P	P	P
SAHIBA WARSI	B.Sc. 3 Biotechnology	CSJMA16001310060	P	P	P	P	P
NEHA PARVEEN	B.Sc. 3 Biotechnology	CSJMA16001310037	P	P	P	P	P
LUBNA RIZVI	B.Sc. 3 Biotechnology	CSJMA16001310029	P	P	P	P	P
TANISHKA YADAV	B.Sc. 3 Biotechnology	CSJMA16001310080	P	P	P	P	P
EISHA VERMA	B.Sc. 3 Biotechnology	CSJMA16001310021	P	P	P	P	P
DEEKSHA YADAV	B.Sc. 3 Biotechnology	CSJMA16001310019	P	P	P	P	P
AROHI YADAV	B.Sc. 3 Biotechnology	CSJMA16001310014	P	P	P	P	P
MAHIMA PANDEY	B.Sc. 3 Biotechnology	CSJMA16001310030	P	P	P	P	P
MONIKA SINGH	B.Sc. 3 Biotechnology	CSJMA16001310033	P	P	P	P	P
MAMTA PANDEY	M.Sc. MIC 2 year	CSJMA17001365027	P	P	P	P	P
ESHITA GUPTA	M.Sc. MIC 2 year	CSJMA17001365015	P	P	P	P	P
AKANSHA DWIVEDI	M.Sc. MIC 2 year	CSJMA14000500391	P	P	P	P	P
APARNA CHAUDHARY	M.Sc. MBT 2 year	CSJMA14000491791	P	P	P	P	P
PRAKSHALYA MISHRA	M.Sc. MIC 2 year	CSJMA14000511741	P	P	P	P	P
RISHANSI PAL	M.Sc. MBT 2 year	CSJMA14000503327	P	P	P	P	P
VAISHNAVI TIWARI	B.Sc. 3 Biotechnology	CSJMA16001310086	P	P	P	P	P
MANISHA	M.Sc. MBT 2 year		P	P	P	P	P
SHALINI SINGH	M.Sc. MIC 2 year	CSJMA13000495045	P	P	P	P	P
MAMTA SHUKLA	M.Sc. MIC 2 year	CSJMA14000523299	P	P	P	P	P
RICHA PAL	M.Sc. MBT 2 year		P	P	P	P	P
ANTARA CHATTERJEE	M.Sc. MIC 2 year	CSJMA17001428003	P	P	P	P	P
JYOTIMA GAUTAM	M.Sc. MIC 2 year	CSJMA13000505241	P	P	P	P	P
SHIVANGI VERMA	B.Sc. 3 Biotechnology	CSJMA16001310071	P	P	P	P	P
SHIKHA KUSHWAHA	M.Sc. MIC 2 year		P	P	P	P	P
SHALINI SINGH	M.Sc. MIC 2 year	CSJMA14000511170	P	P	P	P	P
APOORWA SRIVASTAVA	M.Sc. MIC 2 year	CSJMA17001365019	P	P	P	P	P
PRIYANKA KUMARI	M.Sc. MBT 2 year		P	P	P	P	P
NIYATI SINGH	M.Sc. MIC 2 year	CSJMA11000434555	P	P	P	P	P
SAMIKSHA GUPTA	B.Sc. 3 Biotechnology	CSJMA16001310061	P	P	P	P	P
ALKA SINGH	B.Sc. 3 Biotechnology	CSJMA16001310007	P	P	P	P	P
YOGITA GUPTA	M.Sc. MIC 2 year	CSJMA13000466503	P	P	P	P	P
SHWETA CHAUDHARY	B.Sc. 3 Biotechnology	CSJMA16001310077	P	P	P	P	P
MANJU SINGH	M.Sc. MIC 2 year	CSJMA14000440234	P	P	P	P	P
ANADIKA AGNIHOTRI	B.Sc. 3 Biotechnology	CSJMA16001310010	P	P	P	P	P
KALPANA RATHORE	M.Sc. MIC 2 year		P	P	P	P	P
NANCY SINGH	M.Sc. MBT 2 year	CSJMA17001350014	P	P	P	P	P
KM ADABHI SRIVASTAVA	M.Sc. MBT 2 year	CSJMA17001350010	P	P	P	P	P
ALPANA NISHAD	B.Sc. 3 Biotechnology	CSJMA16001310008	P	P	P	P	P
NIKETA YADAV	M.Sc. MIC 2 year	CSJMA17001365028	P	P	P	P	P
SHALINI GUPTA	M.Sc. MBT 2 year		P	P	P	P	P
Farheen Vasim	M.Sc. BCH 6	CSJMA14000510738	P	P	P	P	P
NAMRATA YADAV	M.Sc. MBT 2 year	CSJMA17001350013	P	P	P	P	P
SHATAKSHI SHUKLA	B.Sc. 3 Biotechnology	CSJMA16001310067	P	P	P	P	P
KM AYUSHI SINGH	B.Sc. 3 Biotechnology	CSJMA15001310034	P	P	P	P	P
SAUMYA KATIYAR	B.Sc. 3 Biotechnology	CSJMA16001310063	P	P	P	P	P
UJJWAL DWIVEDI	B.Sc. 3 Biotechnology	CSJMA16001310082	P	P	P	P	P
TRAPTI GUPTA	B.Sc. 3 Biotechnology	CSJMA16001310081	P	P	P	P	P

PROGRAM ON WOMEN HEALTH AND HYGIENE CLOSING CEREMONY BY HON'BLE VICE CHANCELLOR PROF. NEELIMA GUPTA WITH EXPERT DR. RENU SINGH GEHLOT (GYNAECOLOGIST) WITH FEMALE PARTICIPANTS ON INTERNATIONAL WOMENS DAY, 8th March, 2019

INAUGURATION OF SANITARY NAPKINS DISPENSER AND INCINERATOR

SANITARY NAPKINS DISTRIBUTION

SANITARY NAPKINS DISTRIBUTION

Menstrual health and hygiene may be associated with...

Freedom of movement

School participation and performance

Access to income and economic assets

Contraceptive uptake and continuance

Agency, confidence, and power to make decisions

Source: **Advancing Gender Equity by Improving Menstrual Health, FSG 2020**

THE CASE FOR HER

Menstrual health and hygiene refer to the practices and knowledge related to the menstrual cycle and how to manage it safely and hygienically. It includes the use of menstrual products, such as pads, tampons, and menstrual cups, as well as the proper disposal of used products.

Good menstrual health and hygiene practices are essential to ensure that menstruating individuals can manage their periods safely, comfortably, and with dignity. Here are some important aspects of menstrual health and hygiene:

1.Menstrual products: There are various menstrual products available, such as pads, tampons, menstrual cups, and period panties. It is important to choose a product that is comfortable and appropriate for your needs. It is also important to change your menstrual products regularly to prevent infection and odor.
2.Sanitation: Maintaining good sanitation during menstruation is crucial to prevent infections. Washing your hands regularly, using clean water and soap, and cleaning your genital area are important practices to follow.
3.Disposal: Proper disposal of menstrual waste is essential to prevent environmental pollution and the spread of diseases. Used menstrual products should be wrapped securely in paper or a biodegradable bag and disposed of in a designated bin.
4.Education and awareness: Education and awareness on menstrual health and hygiene are important to eliminate the stigma and taboo around menstruation. This includes providing access to information and resources, addressing myths and misconceptions, and promoting open and honest communication about menstruation.
5.Access to resources: Access to menstrual products, sanitation facilities, and clean water is crucial to managing menstruation safely and hygienically. It is important to ensure that menstruating individuals have access to these resources, especially in low-income or marginalized communities.
Overall, good menstrual health and hygiene practices are essential to ensure the well-being and dignity of menstruating individuals. By promoting education and awareness, providing access to resources, and eliminating stigma and taboo, we can create a world where menstruation is accepted as a natural and normal part of life.

Managing pain during the menstrual cycle can be challenging, but there are several dos and don'ts that can help alleviate pain and discomfort. Here are some tips:

Dos:

1.Use heat therapy: Applying heat to the lower abdomen and lower back can help relieve menstrual cramps. A heating pad, warm towel, or a hot water bottle can be used for this purpose.

2.Take pain relief medication: Over-the-counter pain relief medication such as ibuprofen, naproxen, or acetaminophen can help alleviate menstrual cramps.

3.Exercise: Gentle exercise such as walking or yoga can help improve blood circulation and relieve menstrual cramps.

4.Practice relaxation techniques: Relaxation techniques such as deep breathing, meditation, or yoga can help reduce stress and anxiety associated with menstrual pain.

5.Stay hydrated: Drinking plenty of water and fluids can help reduce bloating and ease menstrual cramps.

Don'ts:

1.Avoid caffeine: Caffeine can worsen menstrual cramps and increase anxiety and irritability. Therefore, it is best to avoid caffeinated drinks such as coffee, tea, and soda during menstruation.

2.Avoid alcohol: Alcohol can dehydrate the body and increase inflammation, which can worsen menstrual cramps.

3.Don't smoke: Smoking can worsen menstrual cramps and increase the risk of developing menstrual disorders.

4.Avoid salty and processed foods: These foods can increase bloating and water retention, which can worsen menstrual cramps.

5.Don't skip meals: Skipping meals can lead to low blood sugar levels, which can cause fatigue, dizziness, and increase menstrual pain.

Overall, managing menstrual pain involves taking care of yourself and avoiding behaviors that worsen pain and discomfort. By adopting healthy habits and seeking medical advice if needed, you can alleviate menstrual pain and improve your quality of life.

Irregular periods are a common issue faced by many menstruating individuals.

A regular menstrual cycle is generally defined as a cycle that lasts between 21 to 35 days, with bleeding lasting for 2-7 days. However, some individuals may experience cycles that are longer or shorter, or have periods that are irregular in frequency.

There can be several reasons why periods may be irregular, including stress, changes in weight, hormonal imbalances, certain medications, or medical conditions such as polycystic ovary syndrome (PCOS) or thyroid disorders. If you are experiencing irregular periods, it is important to talk to your healthcare provider to determine the underlying cause and receive appropriate treatment.

Here are some possible steps your healthcare provider may recommend to help regulate your periods:

1.Lifestyle changes: Simple lifestyle changes such as maintaining a healthy weight, reducing stress levels, and increasing physical activity can help regulate menstrual cycles.

2.Hormonal contraception: Hormonal contraceptives such as the birth control pill, patch, or hormonal intrauterine device (IUD) can help regulate periods and reduce menstrual cramps.

3.Medications: Certain medications such as nonsteroidal anti-inflammatory drugs (NSAIDs) can help alleviate menstrual cramps and reduce menstrual flow.

4.Treatment for underlying conditions: Treatment for underlying conditions such as PCOS or thyroid disorders can help regulate menstrual cycles.

It is important to note that irregular periods are not always a cause for concern. However, if you are experiencing significant changes in your menstrual cycle, or are experiencing other symptoms such as excessive bleeding or severe cramping, it is important to talk to your healthcare provider. They can help determine the underlying cause of your irregular periods and provide appropriate treatment.

Care during menopause

Menopause is a natural biological process that marks the end of a woman's reproductive years. It is characterized by a decrease in the production of estrogen and progesterone hormones, which can lead to a range of symptoms including hot flashes, night sweats, vaginal dryness, mood changes, and sleep disturbances. Here are some tips for taking care of yourself during menopause:

Stay physically active: Regular exercise can help reduce hot flashes, improve mood, and lower the risk of osteoporosis and other chronic health conditions.

Eat a healthy diet: Eating a well-balanced diet that is rich in calcium, vitamin D, and other nutrients can help reduce the risk of osteoporosis and other chronic health conditions.

Stay hydrated: Drinking plenty of water and fluids can help reduce hot flashes and other symptoms.

Manage stress: Stress can worsen menopausal symptoms, so it's important to practice stress-management techniques such as deep breathing, meditation, or yoga.

Practice good sleep hygiene: Getting enough sleep is important for overall health and can help reduce symptoms such as hot flashes and mood changes. Establishing a regular sleep routine and creating a comfortable sleep environment can help improve the quality of your sleep.

Consider hormone therapy: Hormone therapy can help relieve symptoms such as hot flashes and vaginal dryness, but it is not recommended for everyone. Talk to your healthcare provider about the risks and benefits of hormone therapy.

Overall, menopause is a natural process that every woman will experience. By taking care of yourself and seeking medical advice when needed, you can manage the symptoms and stay healthy and active during this important life transition.

Breast cancer is a type of cancer that develops in the cells of the breast. It is the second most common cancer among women worldwide and can also occur in men.
The exact cause of breast cancer is not known, but certain risk factors can increase a person's likelihood of developing the disease. Some of these risk factors include:

•Age: The risk of breast cancer increases as a person gets older.

•Gender: Women are more likely to develop breast cancer than men.

•Family history: A person with a family history of breast cancer or certain genetic mutations, such as BRCA1 or BRCA2, may have an increased risk of developing the disease.

•Hormonal factors: Prolonged exposure to estrogen, such as starting menstruation at an early age or entering menopause at a later age, can increase the risk of breast cancer.

•Lifestyle factors: Certain lifestyle factors, such as alcohol consumption, lack of physical activity, and being overweight or obese, can increase the risk of breast cancer.

It is important for individuals to be aware of the signs and symptoms of breast cancer, which can include a lump or thickening in the breast or underarm area, changes in breast size or shape, nipple discharge or tenderness, and skin irritation or dimpling.

Early detection is key in the treatment of breast cancer. Screening tests such as mammography, clinical breast exams, and self-exams can help detect breast cancer in its early stages, when it is most treatable.

Treatment options for breast cancer may include surgery, radiation therapy, chemotherapy, targeted therapy, and hormone therapy. The type of treatment recommended will depend on the stage and type of breast cancer, as well as the individual's overall health and preferences.

In summary, breast cancer is a serious disease that can affect both men and women. Understanding the risk factors and being aware of the signs and symptoms can help with early detection and improve treatment outcomes. It is important for individuals to talk to their healthcare provider about their risk for breast cancer and any concerns they may have.

Symptoms of breast cancer

The symptoms of breast cancer can vary depending on the stage and type of cancer. In some cases, breast cancer may not cause any symptoms at all, which is why regular screening is important. However, here are some common signs and symptoms of breast cancer:

A lump or thickening in the breast or underarm area

Changes in breast size or shape

Nipple discharge or tenderness

Skin irritation or dimpling

Breast or nipple pain

Redness or scaliness of the breast skin or nipple

Swelling or a lump in the armpit

It is important to note that many of these symptoms can also be caused by other conditions that are not cancerous, such as cysts or infections. However, if you experience any of these symptoms, it is important to see a healthcare provider for evaluation.

In addition to being aware of the signs and symptoms, it is also important for women to undergo regular breast cancer screening, such as mammograms, clinical breast exams, and self-exams, as recommended by their healthcare provider. Early detection is key in the successful treatment of breast cancer.

CERTIFICATE OF PARTICIPATION

CSJMU/BT/WHH/

THIS IS TO CERTIFY THAT _____ HAS SUCCESSFULLY COMPLETED THE WOMEN'S HEALTH AND HYGIENE PROGRAM ORGANIZED BY DEPARTMENT OF BIOTECHNOLOGY FROM 4TH TO 8TH MARCH, 2019.

DURING THIS PROGRAM, _____ ACTIVELY PARTICIPATED IN VARIOUS SESSIONS, WORKSHOPS, AND DISCUSSIONS ON WOMEN'S HEALTH AND HYGIENE, INCLUDING MENSTRUAL HEALTH MANAGEMENT, REPRODUCTIVE HEALTH, NUTRITION, AND HYGIENE PRACTICES.

DR. VARSHA GUPTA
ORGANIZING SECRETARY
8TH MARCH, 2019