

PROJECT

ON

ENVIRONMENTAL

STUDIES

Raniganj Girls' College

Course Name: Environment Studies

Course Code: AEE101

Topic of the project: Different aspects of Air, Soil, Water, Noise pollution

A Project Report

Submitted by Semester-I students (Academic Year 2021-22)

Name of the student	Registration Number
SUBHALAXMI YADAV	KNU113211210067
NIDHI TURI	KNU113211210046
MOUMITA BANERJEE	KNU113211220028
SHALU KUMARI	KNU113211210045
SANDHYARANI DAS	KNU113211210063
SNEHA KUMARI SHAW	KNU113211210233
PRITI KUMARI	KNU113211210184
NIDHU KUMARI SINGH	KNU113211210089
ANU KUMARI RABIDAS	KNU113211210042
PINKI KUMARI	KNU113211210039
NILAM KUMARI	KNU113211210195
SONALI THAKUR	KNU113211210266
ANJALI KUMARI SHAW	KNU113211210108
KHUSHI SINGH	KNU113211210202
PAYEL SINGH	KNU113211210288
BHARTI KUMARI PASI	KNU113211210170
SULTANA KHATUN	KNU113211210181
HENA PARWEEN	KNU113211220012
ANUSKA CHATTERJEE	KNU113211220003
SARASWATI SINGH	KNU113211210168
SHIDDMI PANDEY	KNU113211210240
SUDESHNA LAYEK	KNU113211220017
ASMITA SINGH	KNU113211210271
SHATTIKI SARKAR	KNU113211220035
RITUPARNA GHOSH	KNU113211220051
KAJAL JHA	KNU113211210092
PUNAM YADAV	KNU113211210090

CERTIFICATE

This is to certify that this project titled “Different aspects of Air, Soil, Water, Noise pollution” submitted by the students for the award of degree of B.A. Honours/ Program is a bonafide record of work carried out under my guidance and supervision.

Name of the student	Registration Number
SUBHALAXMI YADAV	KNU113211210067
NIDHI TURI	KNU113211210046
MOUMITA BANERJEE	KNU113211220028
SHALU KUMARI	KNU113211210045
SANDHYARANI DAS	KNU113211210063
SNEHA KUMARI SHAW	KNU113211210233
PRITI KUMARI	KNU113211210184
NIDHU KUMARI SINGH	KNU113211210089
ANU KUMARI RABIDAS	KNU113211210042
PINKI KUMARI	KNU113211210039
NILAM KUMARI	KNU113211210195
SONALI THAKUR	KNU113211210266
ANJALI KUMARI SHAW	KNU113211210108
KHUSHI SINGH	KNU113211210202
PAYEL SINGH	KNU113211210288
BHARTI KUMARI PASI	KNU113211210170
SULTANA KHATUN	KNU113211210181
HENA PARWEEN	KNU113211220012
ANUSKA CHATTERJEE	KNU113211220003
SARASWATI SINGH	KNU113211210168
SHIDDMI PANDEY	KNU113211210240
SUDESHNA LAYEK	KNU113211220017
ASMITA SINGH	KNU113211210271
SHATTIKI SARKAR	KNU113211220035
RITUPARNA GHOSH	KNU113211220051
KAJAL JHA	KNU113211210092
PUNAM YADAV	KNU113211210090

Place: Raniganj

Date: 18.03.2022

Juhin Subhra Ghosh

Assistant Professor, Department of Zoology

Signature of the supervisor with designation and department

RANIGANGA GIRL'S COLLEGE

NAME — Kaushi Singh
CLASS — Hindi (Hom.) 1st Sem. (Art's)
ROLL NO. — 467
Reg. — 113211210202
SUB. — EVS

ACKNOWLEDGEMENT

I would like to express my special thanks of gratitude to my teacher Mr. Tuhin Subhra Ghosh who gave me the golden opportunity to do this wonderful project of Environmental Studies on "Soil Quality Management". Who also helped me in completing my project. I came know about so many new things i am velly thankful to them.

Secondly i would also like to thank my parents and friends who helped me a lot in finalizing this project within the limited time frame.

Khushi Singh

B.A (Art's) 1st Sem

INDEX

S.No.	Date	Title	Page No.	Teacher's Sig.
i)	08/08/22	Soil Quality Management	1-11	

Topic

Soil

Quality

Management

INTRODUCTION —

Soil management is the application of operations, practices, and treatments to protect soil and enhance its performance (such as soil fertility or soil mechanics). It includes soil conservation, soil amendment, and optimal soil health. In agriculture, some amount of soil management is needed both in nonorganic and organic types to prevent agriculture land from becoming poorly productive over decades. Organic farming in particular emphasize optimal soil management because it use soil health as the exclusive or nearly exclusive source of its fertilization and pest control.

Soil management is an important tool for addressing climate change by increasing soil carbon and as well as addressing other major environmental issues associated with modern industrial agriculture practices.

Soil quality management: Key strategies for Agricultural land.

How can you manage land in a way that improves soil productivity, water quality, and other soil benefits? Start with these six components of soil quality management. If you want to assess the effect of your existing land management practices, begin by asking which of your practices fall into each of these categories. Choosing specific practices within each category depends on your situation because different kinds of soil respond differently to the same practice.

Enhance organic matter

Organic matter management: Whether your soil is naturally high or low in organic matter, adding new organic matter every year is perhaps the most important way to improve and maintain soil quality. Regular additions of organic matter improve soil structure, enhance water and nutrient holding capacity, protect soil from erosion and compaction, and support a healthy community of soil organisms. Practices that

increase organic matter include: leaving crop residues in the field, choosing crop rotations that includes high residue plants, using optimal nutrient and water management practices to grow healthy plants with large amounts of roots and residue, growing cover crops, applying manure or compost, using low or no tillage systems, using soil-based rotations, growing perennial forage crops, and mulching.

Avoid excessive tillage

Tillage management: Reducing tillage minimizes the loss of organic matter and protects the soil surface with plant residue. Tillage is used to loosen surface soil, prepare the seedbed, and control weeds and pests. But tillage can also break up soil structure, speed the decomposition and loss of organic matter, increase the threat of erosion, destroy the habits of helpful organisms, and cause compaction. New equipment allows crop production with minimal disturbance of the soil.

Manage pests and nutrients efficiently

Chemical management: An important function of soil to buffer and detoxify chemicals, but soil's

capacity for detoxification is limited. Pesticides and chemical fertilizers have valuable benefits, but they also can harm non-target organisms and pollute water and air if they are mismanaged. Nutrients from organic sources also can pollute when misapplied or over-applied. Efficient pest and nutrient management means testing and monitoring soil and pests; applying only the necessary chemicals, at the right time and place to get the job done, and taking advantage of non-chemical approaches to pest and nutrient management such as crop rotation, cover crops, and manure management.

Prevent soil compaction

Compaction management: Compaction reduce the amount of air, water, and space available to roots and soil organisms. Compaction is caused by repeated traffic, heavy traffic, or traveling on wet soil. Deep compaction by heavy equipment is difficult or impossible to remedy, so prevention is essential. Subsoil tillage is only effective on soils with a clearly defined root-restricting plow pan. In the absence of a plow pan, subsoil tillage to eliminate compaction can reduce yield. Prevention, not tillage is the way to manage compaction.

Keep the ground covered

Residue management: Bare soil is susceptible to wind and water erosion, and to churning and crusting. Ground cover protects soil, provides habitats for large soil organisms, such as insects and earthworms and can improve water availability. Ground can be covered by leaving crop residues on the surface or by planting cover crops. In addition to ground cover, living cover crops provide additional organic matter and continuous cover and food for soil organisms. Ground cover must be managed to prevent problems with delayed soil warming in spring, disease and excessive build-up of phosphorus at the surface.

Diversify cropping systems

Diversity management: Diversity is beneficial for several reasons. Each plant contributes a unique root structure and type of residue to the soil. A diversity of soil organisms can help control pest populations and a diversity of cultural practices can reduce weed and disease pressure. Diversity across the land

scape can be increased by using buffer strips,
 small field, or contour strip cropping. Diversity
 over time can be increased by using long crop
 rotations. Changing vegetation across the landscape
 over time not only increases plant diversity,
 but also the types of insects, microorganisms, and
 wildlife that live on your farm.

