Training Course on Sustainable Soil Erosion Control Techniques

Professional Development Training Course Outline

Category	Agriculture	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Soil erosion is one of the most critical environmental challenges affecting sustainable agriculture, land productivity, and ecological balance globally. Unsustainable land-use practices, deforestation, overgrazing, and climate change have accelerated erosion, reducing soil fertility and increasing sedimentation in water bodies. Training Course on Sustainable Soil Erosion Control Techniques is designed to provide comprehensive, evidence-based knowledge and practical skills for sustainable soil erosion control techniques that protect the environment, support food security, and enhance climate resilience. Through innovative land management practices, participants will learn how to minimize erosion risks and restore degraded land.

Participants will explore cutting-edge, eco-friendly methods of erosion control, including vegetative cover, conservation tillage, terracing, mulching, and integrated watershed management. With a focus on climate-smart agriculture, sustainable development goals (SDGs), and ecosystem restoration, this course empowers professionals and stakeholders to implement adaptive solutions at local, national, and regional levels. Real-world case studies, interactive modules, and hands-on exercises will ensure a rich and practical learning experience.

Programme Curriculum

Training Course on Sustainable Soil Erosion Control Techniques

Introduction

Soil erosion is one of the most critical environmental challenges affecting sustainable agriculture, land productivity, and ecological balance globally. Unsustainable land-use practices, deforestation, overgrazing, and climate change have accelerated erosion, reducing soil fertility and increasing sedimentation in water bodies. Training Course on Sustainable Soil Erosion Control Techniques is designed to provide comprehensive, evidence-based knowledge and practical skills for sustainable soil erosion control techniques that protect the environment, support food security, and enhance climate resilience. Through innovative land management practices, participants will learn how to minimize erosion risks and

restore degraded land.

Participants will explore cutting-edge, eco-friendly methods of erosion control, including vegetative cover, conservation tillage, terracing, mulching, and integrated watershed management. With a focus on climate-smart agriculture, sustainable development goals (SDGs), and ecosystem restoration, this course empowers professionals and stakeholders to implement adaptive solutions at local, national, and regional levels. Real-world case studies, interactive modules, and hands-on exercises will ensure a rich and practical learning experience.

Course Objectives

1. Understand the causes and types of soil erosion globally.
2. Identify key environmental and socioeconomic impacts of soil erosion.
3. Explore sustainable land management (SLM) strategies.
4. Apply vegetative and structural erosion control techniques.
5. Utilize geospatial tools (GIS) for erosion assessment.
6. Implement best practices in agroforestry and cover cropping.
7. Promote soil health through conservation agriculture.
8. Design community-led soil conservation plans.
9. Evaluate policies and legal frameworks for erosion control.
10. Analyze climate change and rainfall-runoff relationships.
11. Develop watershed-based erosion control interventions.
12. Apply sustainable construction techniques for erosion prevention.
13. Monitor and evaluate erosion control program effectiveness.

Target Audience

1. Agricultural extension officers
2. Environmental scientists
3. Land use planners
4. NGO and community development workers
5. Climate change specialists
6. Farmers and cooperatives
7. Policy makers and government officials
8. Researchers and university students

Course Duration: 5 days

Course Modules

Module 1: Fundamentals of Soil Erosion

- Causes and types of soil erosion
- Impact on agricultural productivity and environment
- Soil structure and susceptibility
- Erosion prediction models
- Global erosion trends
- *Case Study: Soil Erosion in the Loess Plateau, China*

Module 2: Vegetative Erosion Control Techniques

- Use of cover crops and mulching
- Role of vegetation in stabilizing soil
- Agroforestry systems
- Grassed waterways and buffer strips
- Integration of indigenous knowledge

- *Case Study: Vetiver Grass Systems in Kenya*

Module 3: Structural Soil Conservation Measures

- Terracing and contour bunding
- Check dams and gabions
- Retaining walls for slopes
- Water diversion structures
- Engineering designs and field layout
- *Case Study: Fanya Juu Terracing in East Africa*

Module 4: Conservation Agriculture Practices

- Minimum tillage techniques
- Crop rotation and soil cover
- Soil organic matter enhancement
- Use of compost and biochar
- Tools and machinery for CA
- *Case Study: CA Success Stories in Zambia*

Module 5: Watershed and Landscape-Level Interventions

- Watershed management principles
- Community-based resource governance
- Land-use zoning and erosion mapping
- Flood mitigation and erosion control
- Hydrological cycle management
- *Case Study: Integrated Watershed Management in India*

Module 6: Climate-Resilient Erosion Control

- Climate-smart agriculture principles
- Rainfall-runoff and erosion modeling
- Drought and flood adaptation
- Carbon sequestration through soil
- Early warning systems and monitoring
- *Case Study: Climate-Adapted Terracing in Ethiopia*

Module 7: Policy, Legal Frameworks, and Institutional Roles

- National policies on soil conservation
- Global conventions (UNCCD, SDGs)
- Institutional roles and multi-stakeholder engagement
- Financial incentives and subsidies
- Community rights and land tenure
- *Case Study: Rwanda's National Soil Erosion Strategy*

Module 8: Monitoring, Evaluation, and Knowledge Sharing

- Indicators of success in erosion control
- M&E tools and frameworks
- Participatory approaches to M&E
- Knowledge platforms and networks
- Data collection and reporting
- *Case Study: FAO's Global Soil Partnership Knowledge Hub*

Training Methodology

- Interactive lectures with visual presentations
- Group-based problem-solving exercises
- Field-based demonstrations and practices
- Case study analysis and peer learning
- GIS tool demonstrations for soil mapping
- Pre- and post-assessment to measure learning outcomes

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com