Training Course on Advanced Climate-Smart Agriculture (CSA) Strategies

Professional Development Training Course Outline

Category	Agriculture	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

As climate change continues to reshape global agricultural landscapes, Climate-Smart Agriculture (CSA) emerges as a vital strategy for increasing productivity, enhancing resilience, and reducing greenhouse gas emissions. Training Course on Advanced Climate-Smart Agriculture (CSA) Strategies is meticulously designed for professionals, policy-makers, researchers, and practitioners aiming to implement sustainable, adaptive, and forward-thinking agricultural practices. It offers an in-depth understanding of the latest technologies, climate-adaptive innovations, and evidence-based policies essential for the transition to a low-emission agricultural future.

Participants will explore agroecological principles, climate data-driven decision-making, and CSA financing mechanisms, equipping them with the expertise to manage climate risks and build long-term resilience. The course incorporates real-life case studies, cutting-edge research, and global CSA success models, making it a robust and action-oriented learning journey.

Programme Curriculum

Training Course on Advanced Climate-Smart Agriculture (CSA) Strategies

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Course Objectives

1. Understand the core principles of climate-smart agriculture and its global relevance.
2. Explore innovative agricultural technologies for climate adaptation and mitigation.
3. Analyze the role of agroecology in enhancing ecosystem resilience.
4. Learn to apply climate data analytics for informed farming decisions.
5. Design carbon-efficient farming systems to reduce emissions.
6. Evaluate climate-resilient crop varieties and seed systems.
7. Integrate digital agriculture tools in CSA implementation.
8. Navigate climate finance and funding for CSA projects.
9. Develop community-based adaptation frameworks for rural areas.
10. Understand the impact of climate policies on agricultural transformation.
11. Apply sustainable water and soil management practices.
12. Learn how to mainstream gender and social inclusion in CSA.
13. Conduct monitoring and evaluation (M&E) of CSA programs using KPIs.

Target Audiences:

1. Agricultural extension officers
2. Climate change and environment specialists
3. Government and policy advisors
4. Research and academic institutions
5. Agribusiness professionals
6. NGO and development practitioners
7. Rural development planners
8. Donor and international agency representatives

Course Duration: 10 days

Course Modules

Module 1: Fundamentals of Climate-Smart Agriculture

- Overview of CSA and the three pillars
- Global trends in climate change and agriculture
- Sustainable development and CSA linkages
- Adaptation vs. mitigation in agricultural systems
- CSA policy and institutional frameworks
- **Case Study**: FAO CSA implementation in Sub-Saharan Africa

Module 2: Climate-Resilient Crop Systems

- Selecting climate-resilient varieties
- Drought-tolerant and heat-resistant crops
- Integrated pest and disease management
- Seed system strengthening strategies
- Crop diversification and rotation
- **Case Study**: Climate-resilient maize in Kenya

Module 3: Smart Livestock and Pasture Management

- Low-emission livestock systems

- Climate-adaptive animal husbandry
- Improved feeding and fodder strategies
- Rangeland and pasture restoration
- Livestock insurance models
- **Case Study**: Climate-smart dairy practices in India

Module 4: Digital Innovations and Precision Farming

- Role of AI, drones, and IoT in CSA
- Data-driven decision-making in agriculture
- Satellite imagery and climate forecasting
- Mobile-based advisory services
- Automation for resource efficiency
- **Case Study**: Precision agriculture in Brazil's soybean sector

Module 5: Agroforestry and Biodiversity Conservation

- Principles of agroforestry in CSA
- Enhancing biodiversity for ecosystem services
- Tree-crop-livestock integration
- Carbon sequestration potential
- Landscape-based adaptation approaches
- **Case Study**: Cocoa agroforestry in Ghana

Module 6: Sustainable Water Resource Management

- Climate-resilient irrigation systems
- Water harvesting and conservation techniques
- Groundwater recharge and reuse
- Water governance in agriculture
- Climate-smart watershed management
- **Case Study**: Micro-irrigation in Rajasthan, India

Module 7: Soil Health and Carbon Farming

- Soil organic matter and climate change
- Composting and green manures
- Conservation tillage and no-till practices
- Biochar and carbon sequestration
- Regenerative agriculture methods
- **Case Study**: Carbon farming pilot in Australia

Module 8: Climate Risk Management and Insurance

- Risk profiling in agriculture
- Index-based weather insurance
- Contingency planning tools
- Early warning systems
- Risk transfer and safety nets
- **Case Study**: Ethiopian drought-index insurance model

Module 9: Gender and Social Inclusion in CSA

- Gender-responsive CSA planning
- Women's role in climate adaptation
- Inclusive technology access

- Youth engagement in smart agriculture
- Social equity in resource allocation
- **Case Study**: Gender empowerment in Nepal's CSA initiatives

Module 10: CSA Policy, Governance, and Financing

- Nationally Determined Contributions (NDCs)
- Agricultural policy integration
- Governance frameworks for CSA
- Accessing green climate funds
- Public-private partnerships in CSA
- **Case Study**: Rwanda's national CSA program

Module 11: Urban Agriculture and Climate Resilience

- Urban farming techniques for climate mitigation
- Vertical and rooftop agriculture
- Local food systems and carbon footprint
- Climate impacts in peri-urban zones
- Policy for urban CSA support
- **Case Study**: Rooftop farming in Manila, Philippines

Module 12: Monitoring, Evaluation, and Learning (MEL)

- Key performance indicators for CSA
- Real-time monitoring tools
- Participatory M&E techniques
- Impact evaluation frameworks
- Reporting and feedback mechanisms
- **Case Study**: MEL toolkit application in Malawi

Module 13: Community-Based Adaptation Strategies

- Engaging local knowledge in CSA
- Participatory planning tools
- Climate field schools
- Farmer-led innovation
- Strengthening local governance
- **Case Study**: Farmer Field Schools in Bangladesh

Module 14: Circular Economy in Agriculture

- Waste-to-resource innovations
- Farm-level circular economy models
- Reducing agricultural carbon footprints
- Recycling in agri-food value chains
- Energy-smart technologies
- **Case Study**: Circular farming model in the Netherlands

Module 15: Scaling Up and Mainstreaming CSA

- Multi-stakeholder coordination
- Scaling success models and pilots
- Institutional capacity building
- Embedding CSA in education curricula
- National and regional CSA action plans

- **Case Study**: Africa CSA Alliance scale-up model

Training Methodology:

- Interactive lectures and multimedia presentations
- Group discussions and peer learning
- Practical case study analyses
- Simulation-based role plays and activities
- Online platforms and mobile tools for real-time engagement
- Field demonstration videos and success stories

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	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

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