

Hands-on Training Workshop

“CENTURY MODEL SIMULATIONS FOR SOIL CARBON SEQUESTRATION UNDER CHANGING CLIMATE”

24-27 May 2021



Organized by

Institute of Soil Science
PMAS-Arid Agriculture University Rawalpindi

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INTRODUCTION

Modeling is a robust and cost effective tool to estimate soil health and productivity under different management and climatic scenarios. SOC sequestration due to its multifarious effects on soil health, productivity and resilience to climate change has recently gained significant attention. The CENTURY model is tailor made to simulate soil organic carbon (SOC) turnover under wide range of management practices such as crop rotations, tillage systems, and fertilizer application etc. CENTURY divides the SOC into three pools: active, slow, and passive. The active fraction includes the soil microbes and microbial products, the slow pool consists of resistant plant material derived from structural pool and the passive pool comprises of organic matter physically and chemically stabilized, with a turnover time of centuries.

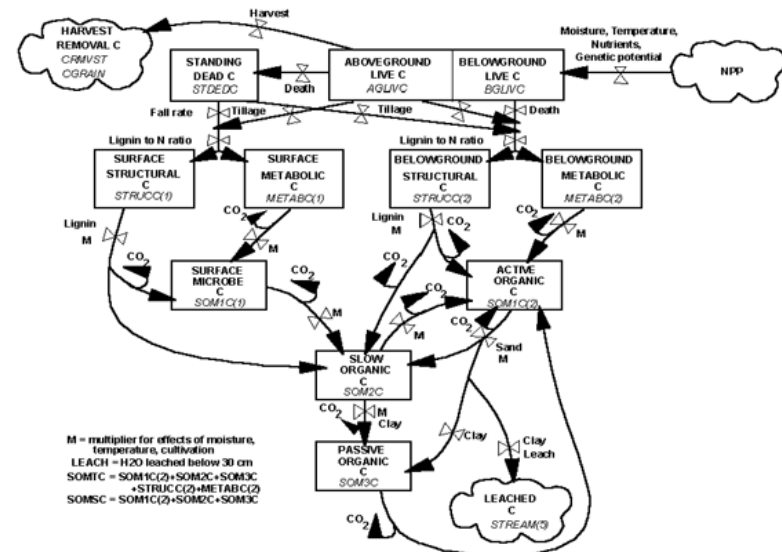


Figure: Soil Organic Carbon (SOC) submodel of CENTURY

OBJECTIVES

The main goal of the training workshop is to develop capacity of young scientists, researchers, and post-graduate students in climate change impact assessment and adaptation strategies using CENTURY model under different Agro-ecosystems. The training will be helpful to provide an opportunity for improving management strategies for sustainable crop production under changing climate.

WHO SHOULD ATTEND

Soil Scientists, Environmentalists, Agronomists, Agro-meteorologists, Agriculture Extension Agents, Nutrient Management Specialists, Policy Makers, Planners and other Agricultural Professionals striving to reduce risks in agricultural productivity under changing climate should attend this workshop.



WORKSHOP HIGHLIGHTS

- Hands-on sessions that will apply CENTURY model to different crop management practices in various climatic scenarios
- Describe procedures for model parameterization
- Scheduling different events and model calibration
- Creating graphs of century output in Microsoft excel by using CENTURY output variables

Registration Fee

Rs. 1500 per participant

Note: Participants should bring their laptop with windows Operating System. No TA/DA will be paid to participants.

ORGANIZERS

Patron in-Chief

Prof. Dr. Qamar uz Zaman (Vice Chancellor, PMAS-AAUR)

Organizing Committee

Prof. Dr. Khalid Saifullah Khan (Director, ISS)
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