

# Strategic Research Agenda (SRA) on Soil Carbon

# **Publication**

Report

# Citation

CIRCASA 2020. Deliverable D3.1: "Strategic Research Agenda on soil organic carbon in agricultural soils." European Union's Horizon 2020 research and innovation programme grant agreement No 774378 â Coordination of International Research Cooperation on soil CArbon Sequestration in Agriculture. https://doi.org/10.15454/LSWRDG

CIRCASA 2020. Deliverable D3.1: "Strategic Research Agenda on soil organic carbon in agricultural soils." European Union's Horizon 2020 research and innovation programme grant agreement No 774378 â[]] Coordination of International Research Cooperation on soil CArbon Sequestration in Agriculture. https://doi.org/10.15454/LSWRDG

#### Language

English

# Authorship

Dr. Ana Frelih-Larsen Irina Herb Jean-Francois Soussana, Cristina Arias-Navarro, Antonio Bispo, Claire Chenu (INRAE) Pete Smith, Matthias Kuhnert (University of Aberdeen) Peter Kuikman, Saskia Keesstra, Jan Verhagen (WUR) Lieven Claessens (IITA) Beata Emoke Madari (EMBRAPA) Julien Demenois, Alain Albrecht (CIRAD) Louis Verchot (CIAT) Luca Montanarella, Roland Hiederer (EC-JRC) Mike Grundy, Jeff Baldock (CSIRO) Jean-Luc Chotte (IRD) John Kim (Max-Planck-Institut)

#### Funding

European Commission, <u>Directorate-General Research & Innovation</u> (DG Research & Innovation), International

#### Year

2020

# DOI

10.15454/LSWRDG

# Project

<u>Coordination of International Research Cooperation on soil Carbon Sequestration in Agriculture</u> (<u>CIRCASA</u>)

# **Project ID**

# <u>2810</u>

# **Table of contents**

FOREWORD INTRODUCTION INTEREST ON AGRICULTURAL SOIL CARBON BOTH AT GLOBAL AND EU SCALES STRATEGIC RESEARCH AGENDA ON SOIL ORGANIC CARBON Stakeholder approach Research Challenges **Research Priorities** Pillar 1  $\hat{a}$  Frontiers research: unlocking the potential of soil carbon Pillar 2 ân Soil carbon monitoring, reporting and verification (MRV) system Pillar 3 ân Agro-ecological and technological innovations Pillar 4 ân Enabling environment and knowledge co-creation Designing an International Research Consortium (IRC) on agricultural soil carbon sequestration CONCLUSION Appendix: Design of a global high-resolution dynamic soil organic carbon monitoring system for agricultural land 1. Basic monitoring, reporting and verification (M, R, V) concepts 2. Dynamic soil carbon and GHG balance modeling 3. Regional, national and project scale SOC monitoring systems 4. Design principles for a high resolution EU and global dynamic SOC monitoring system 5. Reporting and verifying SOC change estimates 6. First assumptions for the three pillars in the EU

# REFERENCES

# Keywords

<u>Agriculture</u> <u>International Development</u> carbon sequestration, soil, agriculture, climate protection

Source URL: https://www.ecologic.eu/17748