Item 7

SSM protocol – User’s Manual

Carolina Olivera
Cruz Ferro
Juan Carlos Rey

28, 29 and 30 March 2022 | Virtual meeting
SSM Protocol – User’s manual and Annexes

Protocol steps

Step 1. Description of the study area

Step 2. Data collection

Step 3. Interpretation

Activities in step

1. Definition and description of Assessment Units
2. Description of current soil management
3. Description of SSM
4. Soil sampling and field observations
5. Measurement of indicators
6. Soil health: use of benchmark values
7. SSM compliance: baselines and control plots

Methodological Annexes

Annex 1. List of SSM practices
Annex 2. Fieldwork methods
Annex 3. Laboratory methodologies
Annex 4. Additional indicators
Annex 5. Remote sensing tools
Annex 6. Data collection forms
SSM Protocol – User’s manual and Annexes
Regional project in the LAC region:
Validation of the SSM Protocol

Regional project: Support to regional cooperation for climate management of agricultural ecosystems with emphasis on water and soil
Argentina, Colombia, Costa Rica, Ecuador, Nicaragua, Paraguay, República Dominicana, Uruguay, Venezuela

- SSM practices database
- Technical capacity building
- Pilots for the validation of the SSM protocol Users’ manual
- SSM practices scaling up strategy

16th Working Session of the Intergovernmental Technical Panel on Soils (ITPS)
28, 29 and 30 March 2022 | Virtual meeting
Regional survey on SSM practices

21 countries  1350 answers  365 main practices

- Email Address. Last Name First Name
- Institution, Country
- Project details (Public, private, technical support.)
- Applied Practice. Select several if applicable.
- Land use, Brief description of the practice
- Soil type (World Reference Base, Soil Taxonomy)
- Geographical location
- Climate
- Land tenure and land rights
- Type of farmer
- Role of women
- Number of farmers applying the practice
- Total area where the practice is applied (ha)
- Approximate cost (US$) installing / maintenance cost
- Implementation time (months, years)
- Purpose of the practice
- Soil indicators monitored to quantify the impact of the practice
- Publication (internet link)
Regional survey on SSM practices

Resultados de la Encuesta

Total de prácticas principales = 365

% del total de Prácticas Principales

Criterios de Selección de la Práctica

- Área de influencia
- Impacto
- Número de productores

Costo de la Práctica

- Con Costo
- Sin Costo

% Impactos de las PMSSA

Aumento de producción
Mejorar manejo de agua en el suelo
Minimizar erosión
Fomentar un buen balance de nutrientes
Preservar, mejorar biodiversidad del suelo
Mantener o aumentar contenido de C<sub>2</sub>O
Mitigación de Cambio Climático

% de Indicadores de PMSSA

Productividad
Nutrientes del suelo
Carbono orgánico del suelo
Propiedades físicas del suelo
pH
Capacidad de suelo
Altura de crecimiento
Densidad del suelo
Actividad biológica del suelo
Regional survey on SSM practices

- Applied Practice: Crop rotation; IFM; Reduced tillage; water mangt.
- Type of farmer: Commercial system; family farming; agroindustry
- Role of women: Decision making; association member
- Implementation time: < 10 years; > 20 years
- Soil indicators monitored: Productivity; nutrients; physical properties; pH; SOC
- Purpose of the practice: Productivity; water optimization; erosion control..

=> Selection of pilot sites
SSM database / app

RECSOIL carbon path
- Land use history
- Fertilizers use detail
- SOC detailed measurements
- Annual energy use, transports
- Livestock specific data

Common information
- Project ID, contact data
- Field general data
- Climate and soil data
- General management data (Land use, practices, fertilizers use, water management...)

SSM practices decision support
- Costs of installation / maintenance
- Type of farmer
- Role of woman
- Purpose of the practice

RECSOIL green path and SSM Protocol
- SSM indicators (Productivity, SOC, BD, respiration)
- Visual soil assessment
- Additional indicators
- Remote sensing methods

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RECSOIL green path and SSM Protocol
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Main steps to complete:

• ITPS and GSP Secretariat review April 2022
• SSM Group review May 2022
• App and RECSOIL pilots developed June 2022
• Results of the regional Project July 2022
• Published document October 2022