WP3: Stakeholders involvement

Selection of multi-stakeholder panel
Participatory review of which cropping systems can improve soil quality
Participatory identification of current benefits and drawbacks of Soil Improving Cropping Systems (SICS)
Participatory selection of trial and SICS for further experiments (study site selection)
Implementation of SICS on the trial fields in collaboration with stakeholders.

SICS discussed with stakeholders:
1. Changes in soil mobilization (conversion of monoculture to rotation/succession techniques)
2. Changes in soil management
3. Changes in fertilization practices
4. Changes in phytosanitary treatments (more sustainable use)

Selection of 3 SICS in a participatory meeting organized in May 2017.

Implementation of SICS in the field is performed in collaboration with 4 stakeholder institutions, that provided terrains, equipment and manpower.

WP4/5: Assessment methodology

Parameters analysed in 2017
- Soil physical and chemical parameters: Penetration resistance, texture and granulometric fractions, pH (H2O), Oxidizable Organic Matter, Soil moisture content
- Soil Fertility: Nitrogen (Total Nitrogen, Kjedahl, Nitric Matter, Soil moisture and available potassium)
- Soil biological parameters: Decomposition rates
- Soil structure: Exchange cations (Calcium, Magnesium, Potassium, Sodium)
- Watering parameters: Field capacity, Infiltration capacity
- Crop parameters: Yield, humidity

Soil sampling
- First sampling campaign: in September 2017
  - Conventional Rice: 8 samples
  - Organic Rice: 8 samples
  - Lucerne: 8 samples
- Second sampling campaign: in May 2018
  - Conventional Rice: 18 samples (3 plots, 3 repetitions, 2 depths)
  - Organic Rice: 18 samples
  - Lucerne: 18 samples
- Third sampling campaign: in November 2017
  - Conventional Corn/sunflower: 50 samples (5 lines, 5 repetitions, 2 depths)

Some preliminary results

Spatial and temporal variability of Organic matter content in Taveiro for Corn monoculture

Spatial and temporal variability of Soil Composition in Taveiro for Corn monoculture

WP5: Monitoring

SICS 1: Rotation system - Rio da Barca – Organic Rice in rotation with perennial lucerne (two years of rice + 2 years of lucerne).

SICS 2: Succession system - Taveiro – Principal crop (green corn or sunflower) integrated in a succession of legumes (clover, pea, trefoil... joint as green manure).

SICS 3: Organic fertilization system - São Silvestre – Organic fertilization system from urban origin (sewage sludge).

WP7: Policy analysis

Policies inventory:
- 23 MS policies

1 in-depth analysis:
- FON - Rural Development Program
- Nitrates directive
- Pesticides directive

WP8: Dissemination

Multi-stakeholders advisory panel meeting (24th April 2018)

Publication in the National Technical Journal AGROTEC

Poster in the CIALP international conference (May 2018)

Poster in EGU General Assembly (April 2018)