



# Global Soil Organic Carbon Sequestration Potential Map

## GSOCseq

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**Technical Workshops. 2020**

# Soil Organic Carbon Sequestration Maps

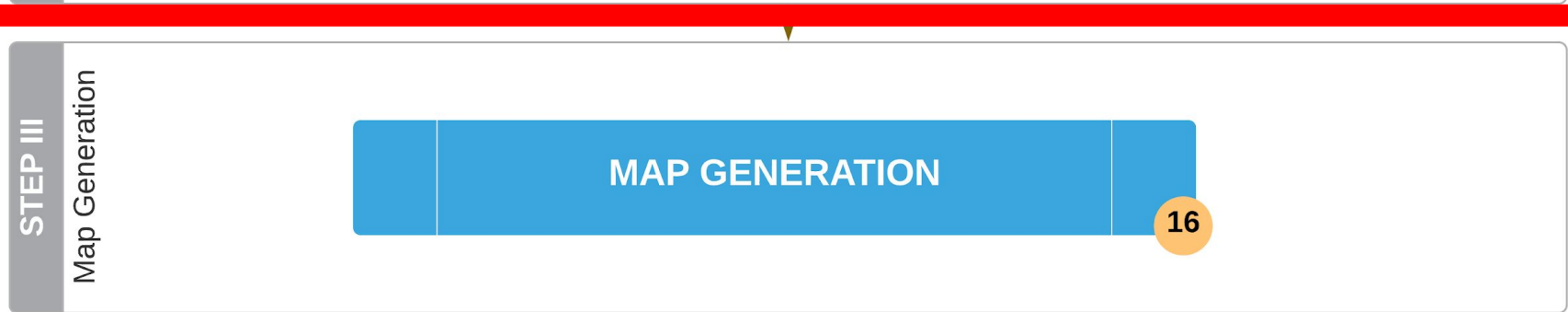
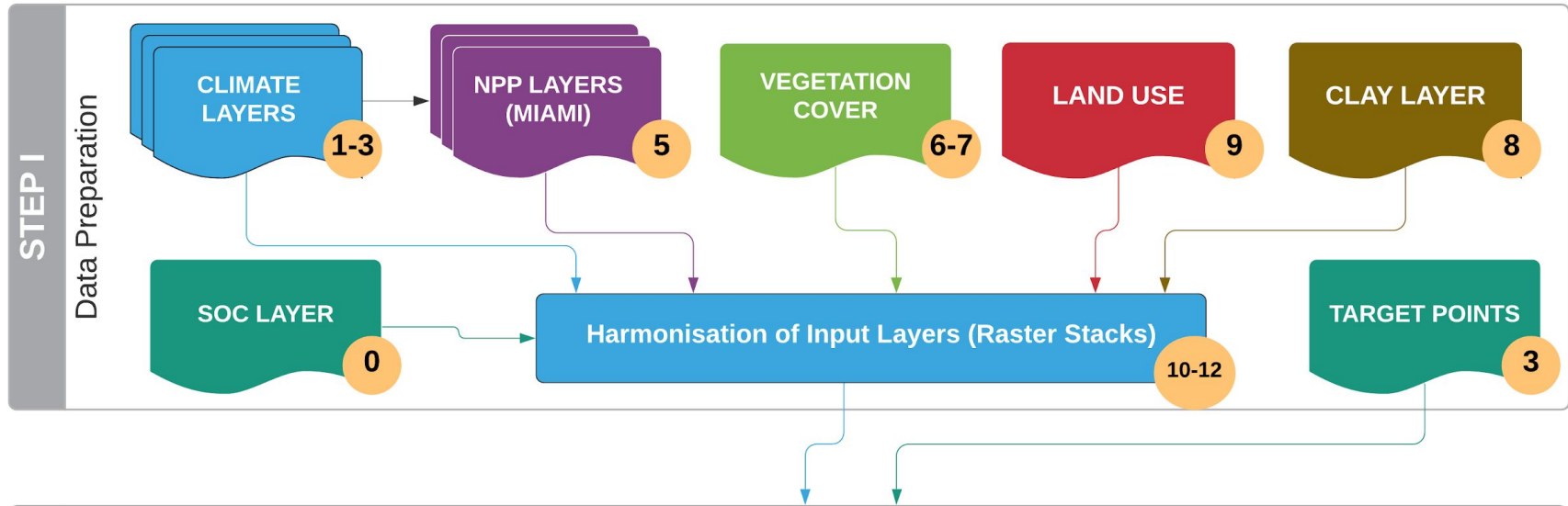
## Day 4. From vectors to maps

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● Script Number

# FROM POINTS TO RASTERS



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## SCRIPT NUMBER 16. POINTS TO RASTER

### Inputs:

COUNTRY\_POLYGON.SHP (ROI)

FOWARD\_BAU\_3E\_20YEARS\_[code country].shp  
(from script number 15)

### **LAYER :**

SOC\_MAP\_[country\_code].tif  
(from script number 10)

### Outputs :

3 raster scenarios (low , médium and high)  
1 raster BAU (bussines as usual)  
4 absolute rates (Scenario – 2018 SOC)/20  
4 absolute differences (Scenario – 2018 SOC)  
3 relative rates (Scenario – BAU)/20  
3 relative differences (Scenario – BAU)  
Uncertainties maps (BAU, SSM, SOC2018, UNC for absolute and relative rates)

# From points to rasters

 16\_Points\_To\_Raster.R

## **Objective:**

Modeling runs will generate a 'point' vector file (1 point per pixel) , with data related to SSM and BAU scenarios, and uncertainties (simplified method).

This information is saved as a shapefile...





**This last step will transform this points to raster file, one for each required map**




# Products

Final SOC stocks  
(tC/ha)





&

Uncertainties  
(%)

-  Pergamino\_GSOCseq\_finalSOC\_BAU\_Map030.tif
-  Pergamino\_GSOCseq\_finalSOC\_SSM1\_Map030.tif
-  Pergamino\_GSOCseq\_finalSOC\_SSM2\_Map030.tif
-  Pergamino\_GSOCseq\_finalSOC\_SSM3\_Map030.tif

-  Pergamino\_GSOCseq\_SSM\_UncertaintyMap030.tif
-  Pergamino\_GSOCseq\_T0\_Map030.tif
-  Pergamino\_GSOCseq\_T0\_UncertaintyMap030.tif

# SOC Absolute differences (SSM 1-3 – T0) In tC/ha









-  Pergamino\_GSOCseq\_AbsDiff\_BAU\_Map030.tif
-  Pergamino\_GSOCseq\_AbsDiff\_SSM1\_Map030.tif
-  Pergamino\_GSOCseq\_AbsDiff\_SSM2\_Map030.tif
-  Pergamino\_GSOCseq\_AbsDiff\_SSM3\_Map030.tif

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# Absolute sequestration rates : Abs. Diff./20 years In tC/ha/year

-  Pergamino\_GSOCseq\_ASR\_BAU\_Map030.tif
-  Pergamino\_GSOCseq\_ASR\_BAU\_UncertaintyMap030.tif
-  Pergamino\_GSOCseq\_ASR\_SSM1\_Map030.tif
-  Pergamino\_GSOCseq\_ASR\_SSM1\_UncertaintyMap030.tif
-  Pergamino\_GSOCseq\_ASR\_SSM2\_Map030.tif
-  Pergamino\_GSOCseq\_ASR\_SSM2\_UncertaintyMap030.tif
-  Pergamino\_GSOCseq\_ASR\_SSM3\_Map030.tif
-  Pergamino\_GSOCseq\_ASR\_SSM3\_UncertaintyMap030.tif

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# SOC Relative Differences: (SSM1-3 – BAU) In tC/ha

-  Pergamino\_GSOCseq\_RelDiff\_SSM1\_Map030.tif
-  Pergamino\_GSOCseq\_RelDiff\_SSM2\_Map030.tif
-  Pergamino\_GSOCseq\_RelDiff\_SSM3\_Map030.tif

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# Relative sequestration rates : Rel. Diff./ 20 years In tC/ha/year

-  Pergamino\_GSOCseq\_RSR\_SSM1\_Map030.tif
-  Pergamino\_GSOCseq\_RSR\_SSM1\_UncertaintyMap030.tif
-  Pergamino\_GSOCseq\_RSR\_SSM2\_Map030.tif
-  Pergamino\_GSOCseq\_RSR\_SSM2\_UncertaintyMap030.tif
-  Pergamino\_GSOCseq\_RSR\_SSM3\_Map030.tif
-  Pergamino\_GSOCseq\_RSR\_SSM3\_UncertaintyMap030.tif

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# Thank you!

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