Expert Meeting on Ecosystem Accounts

Melbourne, Australia, 16-18 May 2012

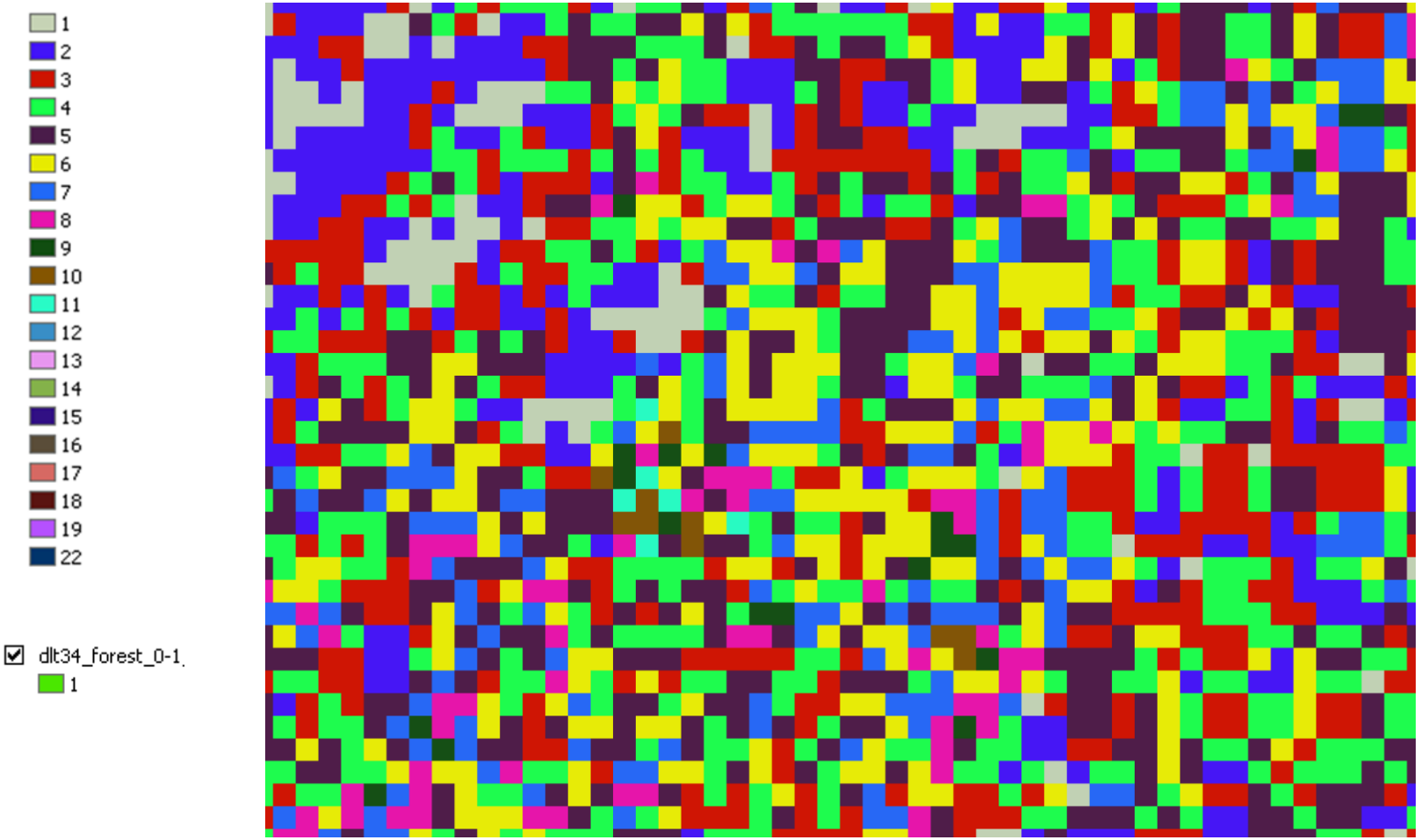
The making of the biodiversity/species index for LEAC/Ecosystem capital accounts in Europe, using the « Art.17 » reporting data

J.-L. Weber*, E. Ivanov+, R. Spyropoulou*, O.Gomez*

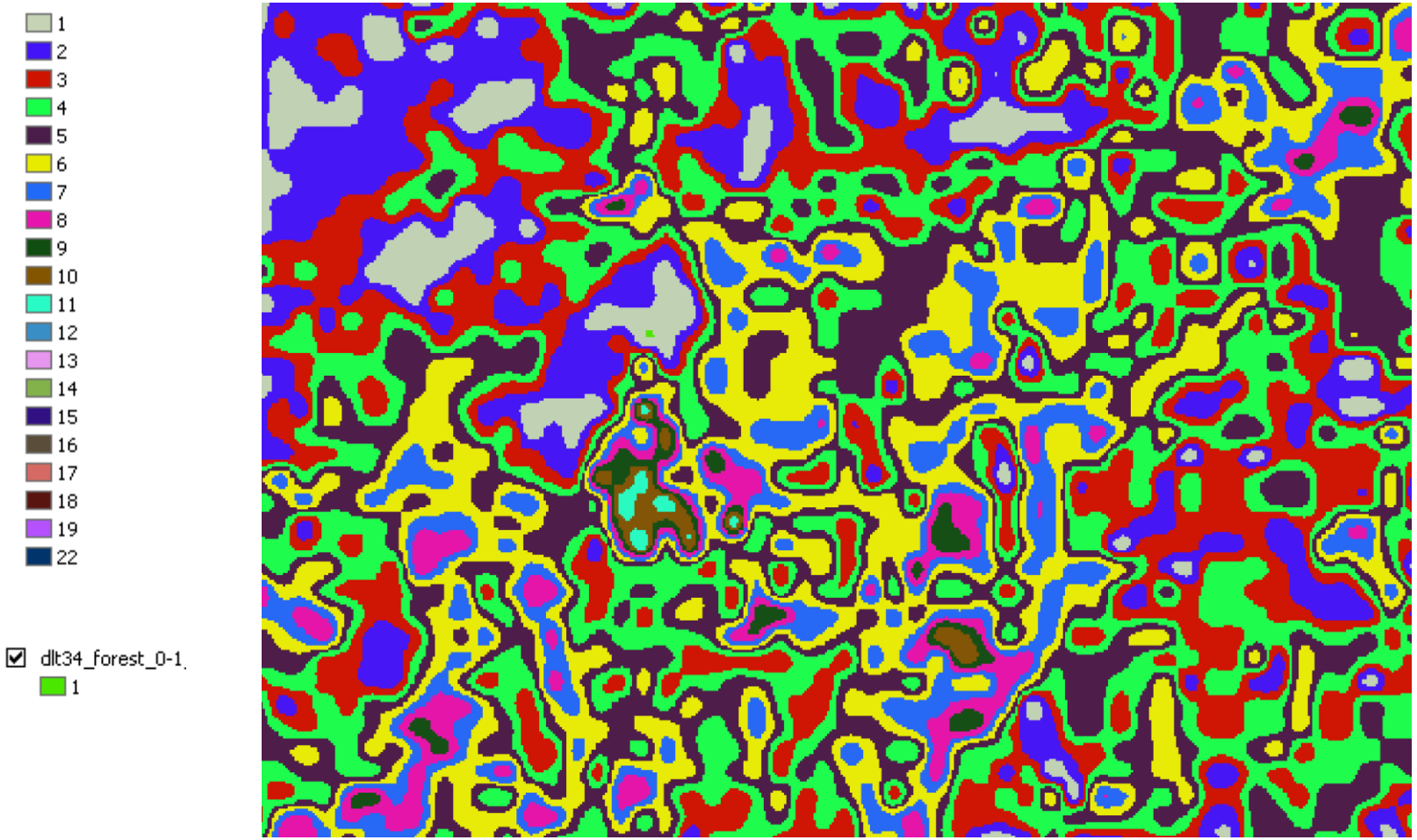
* European Environment Agency

+ University of Nottingham

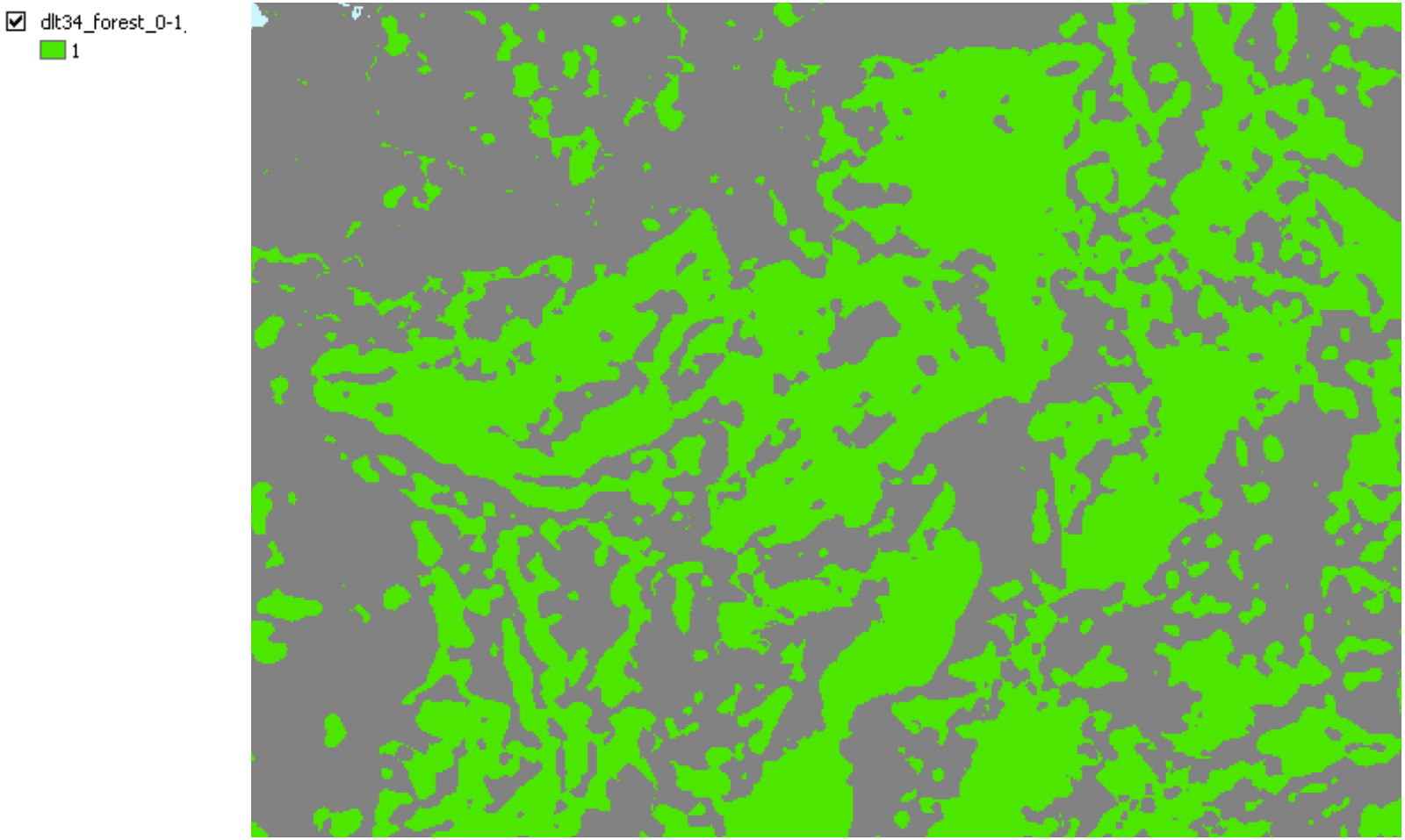
Input 1: forest species reported to Art. 17 as « future = bad or poor», resolution of 10 km x 10 km. Note that several « forest » species can be found in other ecosystems as well.



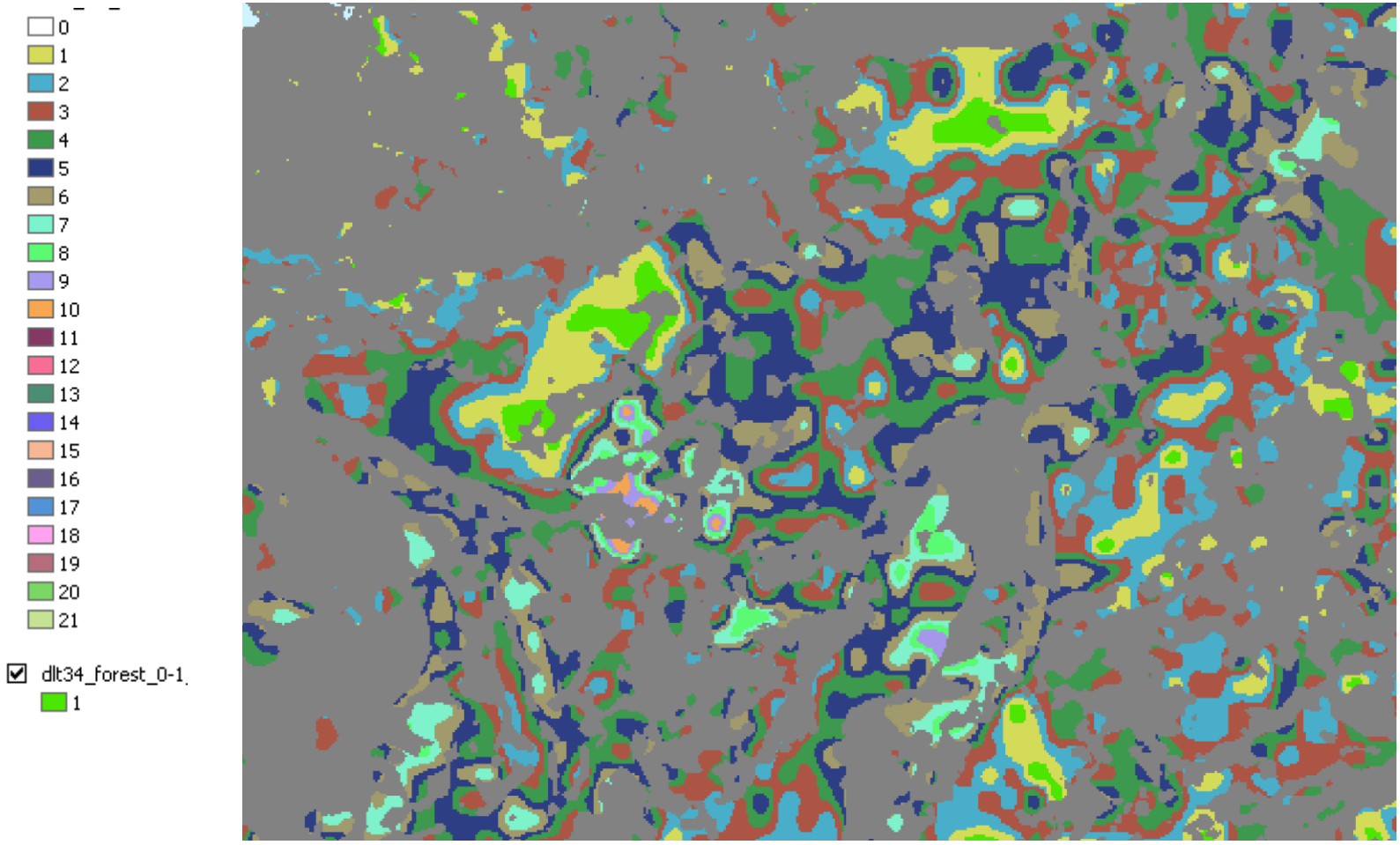
Resampling (cubic convolution) of 10 km x 10 km data to the 1 x 1 km grid



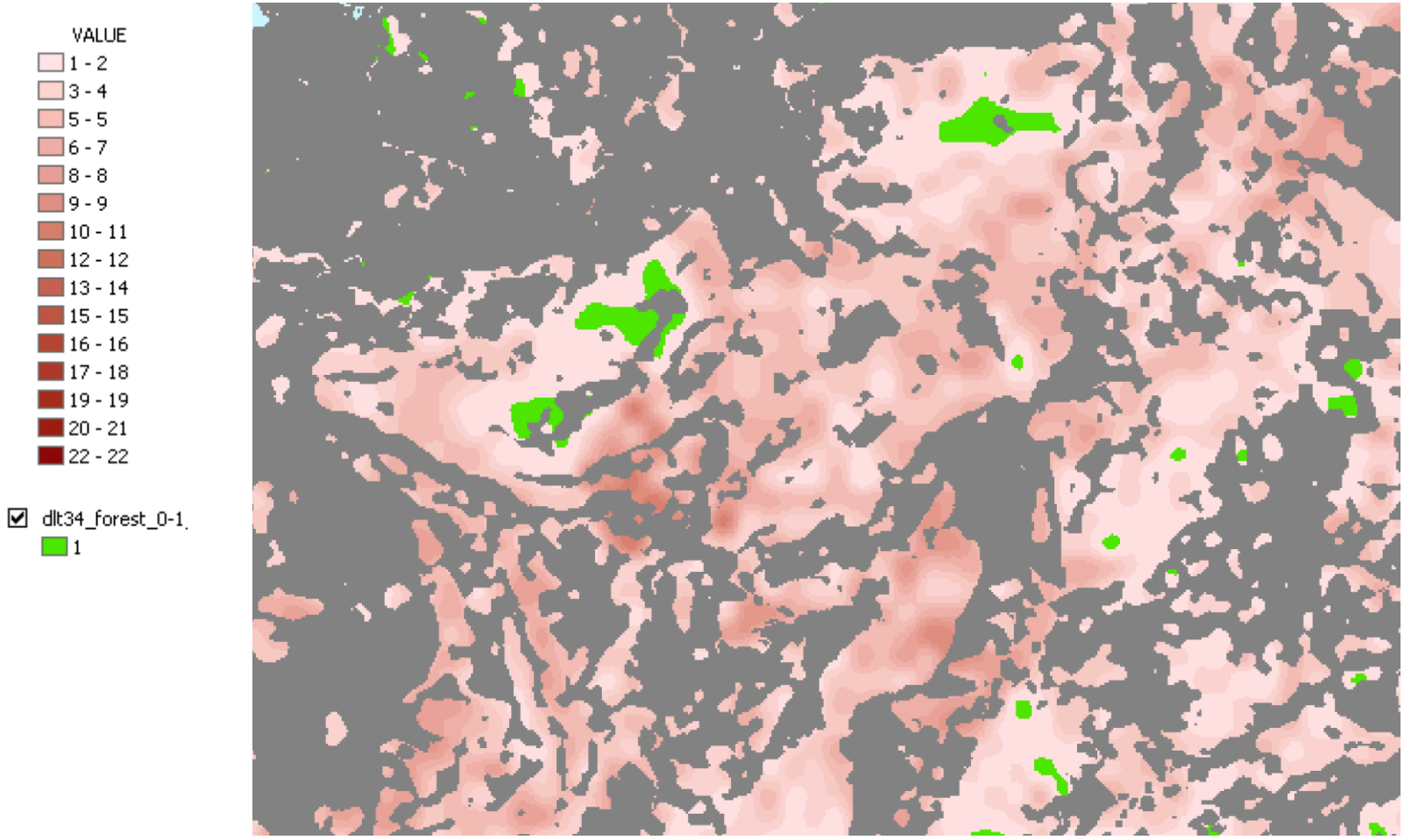
Input 2: Forest Dominant Landscape Type 34 (more than 1/3…)



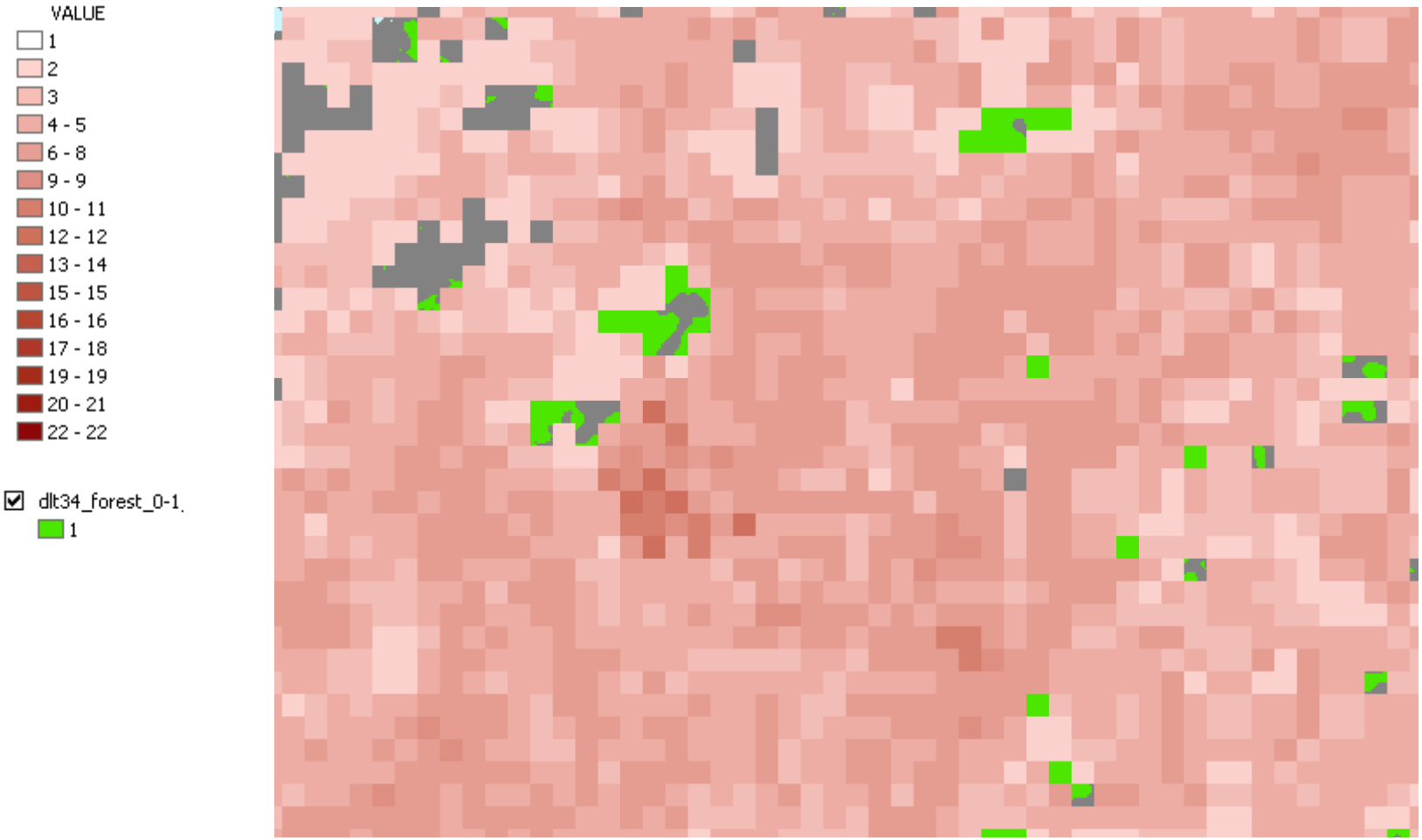
Filtering of resampled data with the map of Forest Dominant Landscape Type 34 (1 km x 1 km)



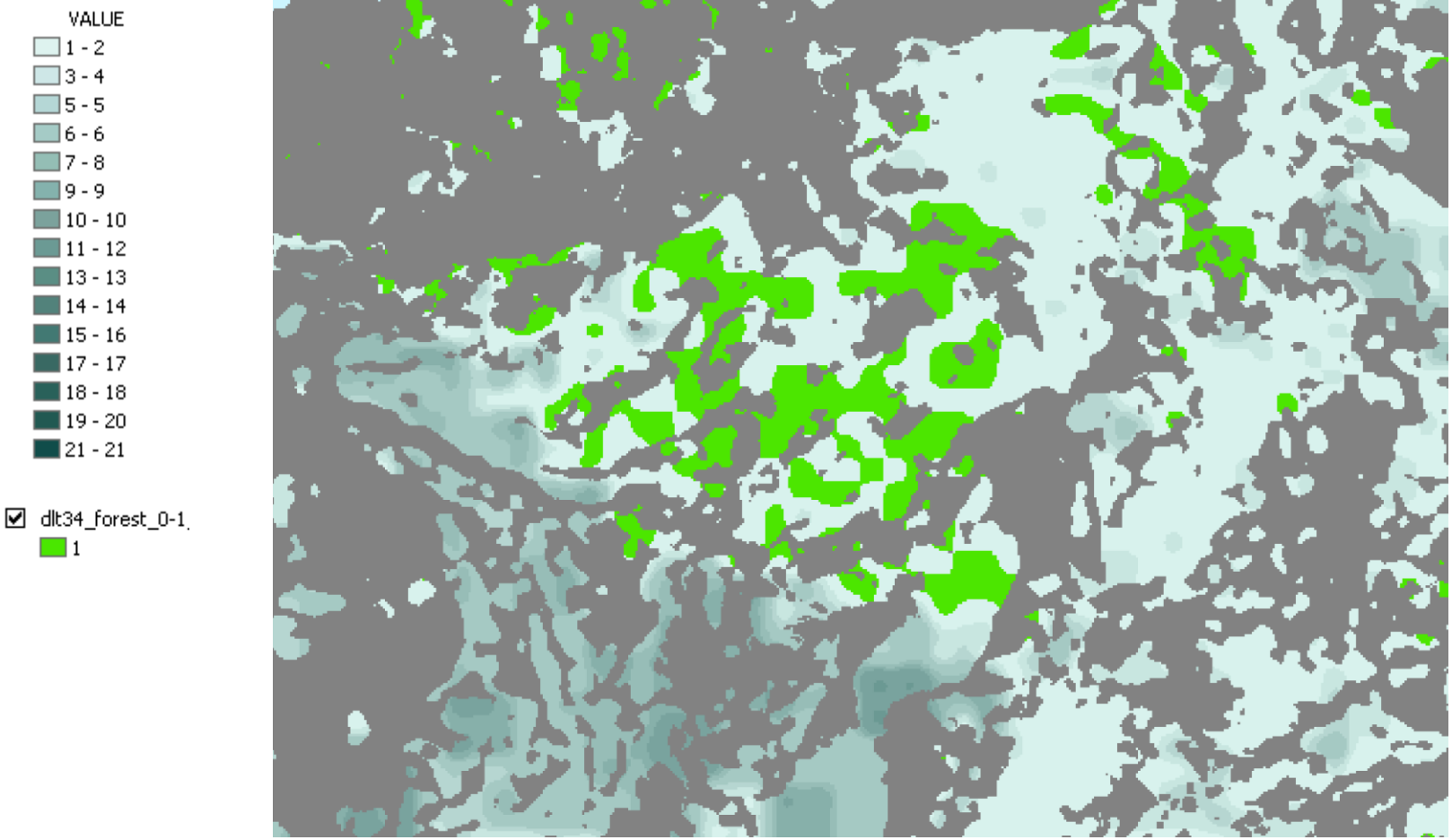
Classification of the Art. 17 data resampled and filtered using the map of Forest Dominant Landscape Type 34



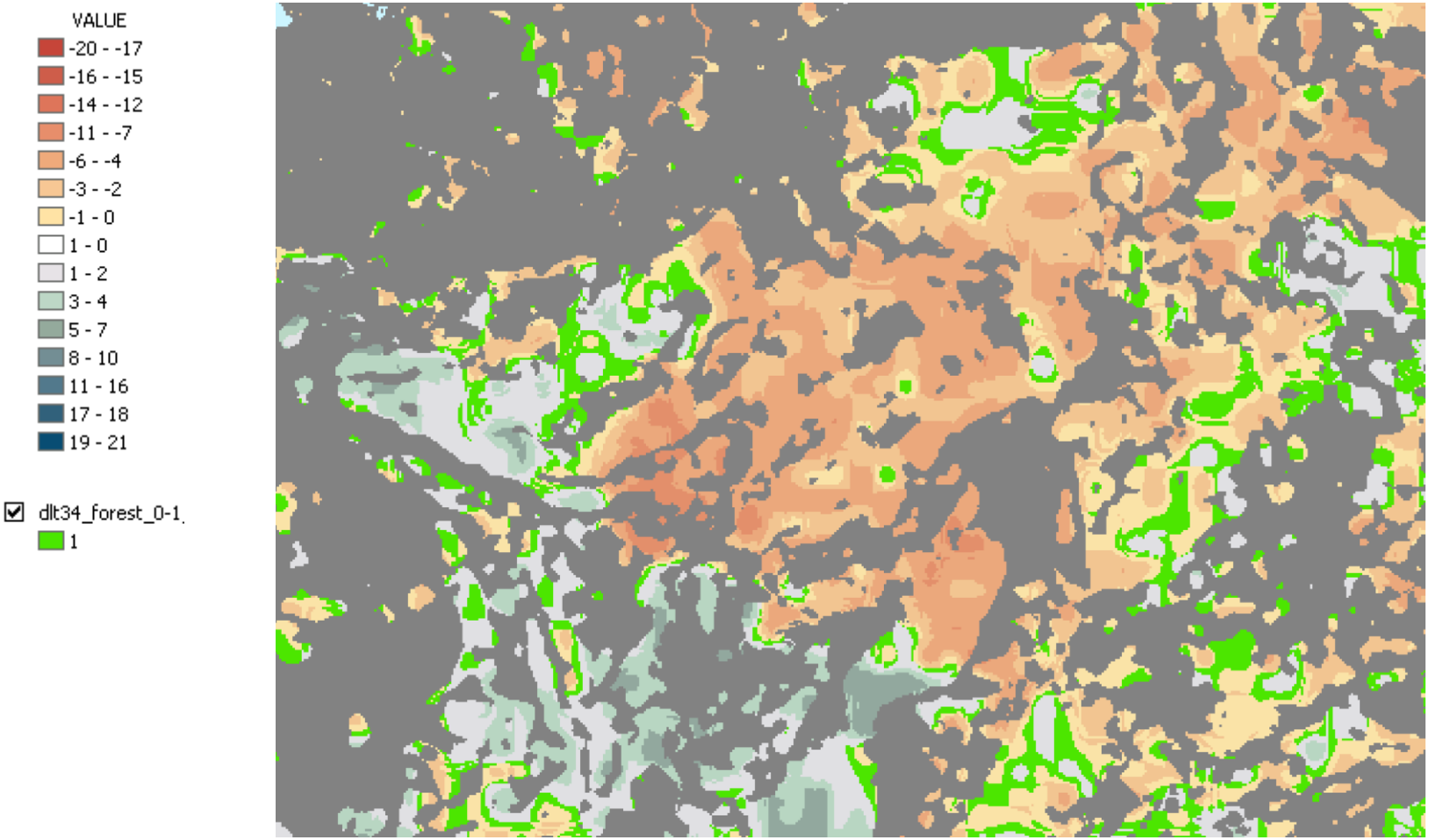
For comparison, the same classification with the original data at 10 km x 10 km



Similarly processed data for Art. 17 « future = good »



A possible synthetic indicator: « future good minus bad+poor »



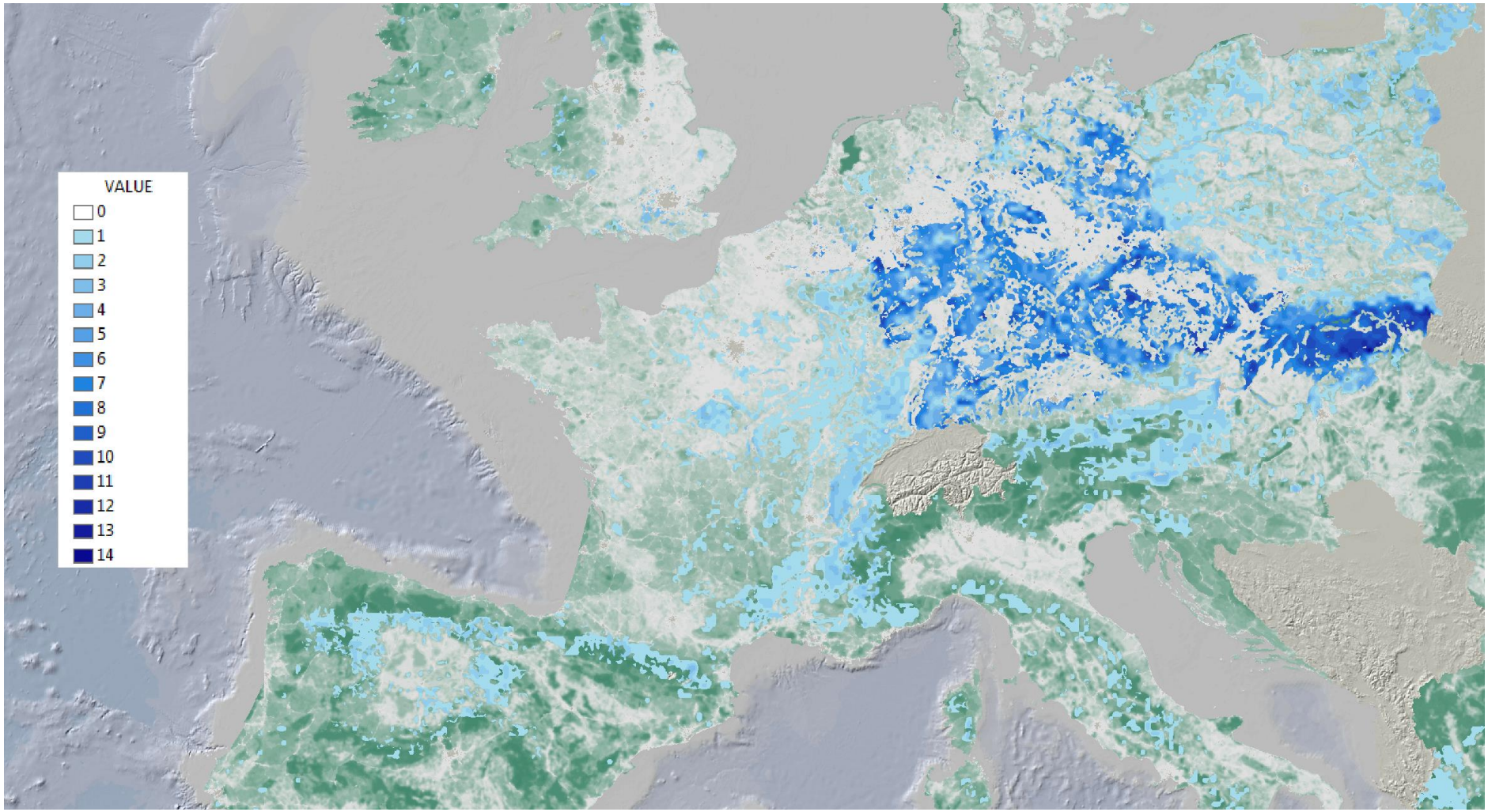
Results of “population status”

- Status:
  - Increasing
  - Stable
  - Decreasing
- Index: Increasing + Stable – Decreasing

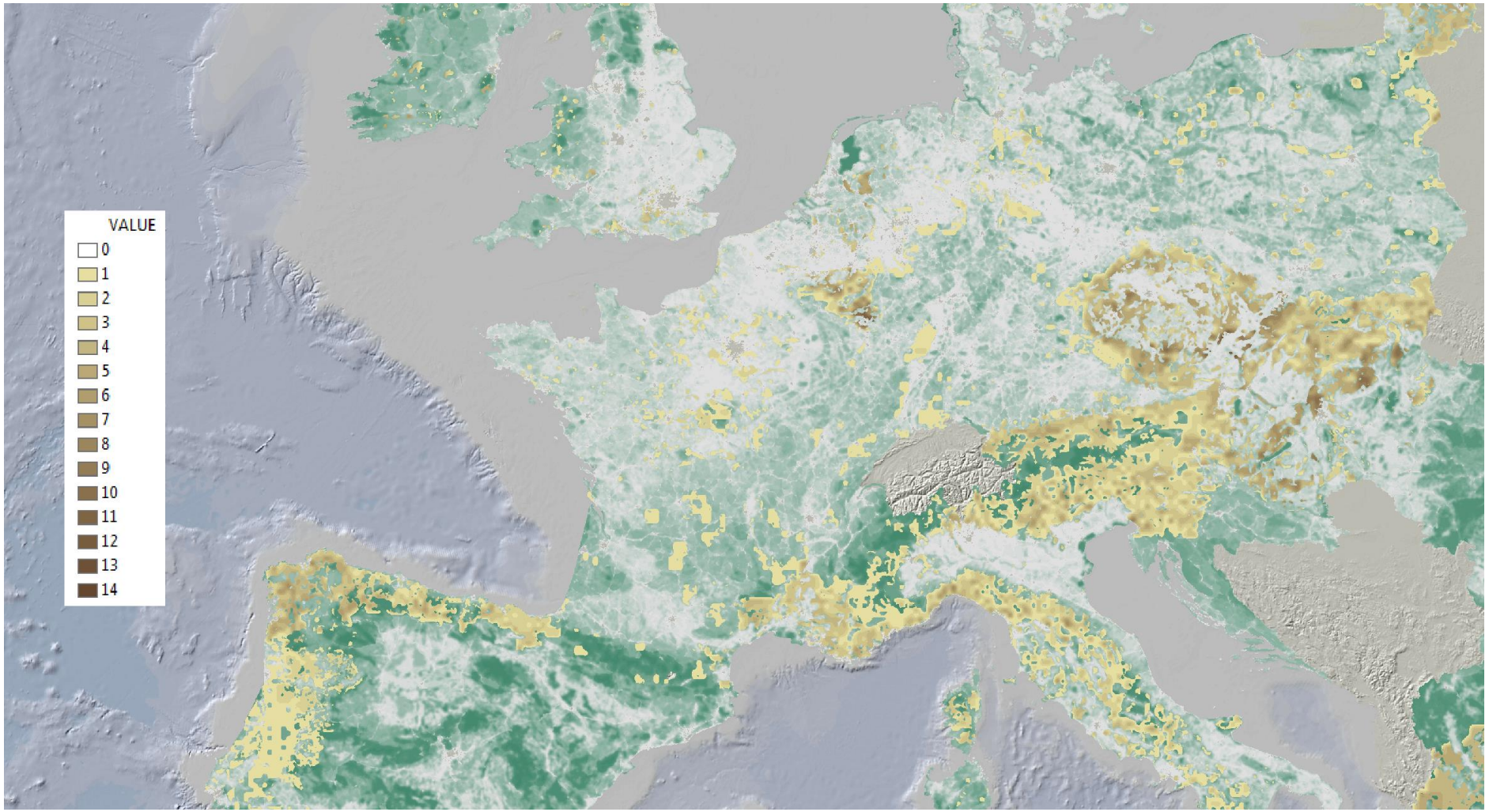
- Ecosystem groups used to classify species in Article 17 (one specie can belong to more than one group):
  - Forest
  - Agriculture
  - Grassland
  - Shrubland
  - Forest
  - Wetlands and water
  - Coasts

- Indexes are added to make the species biodiversity index
- Species index is combined with the Landscape Ecological Potential

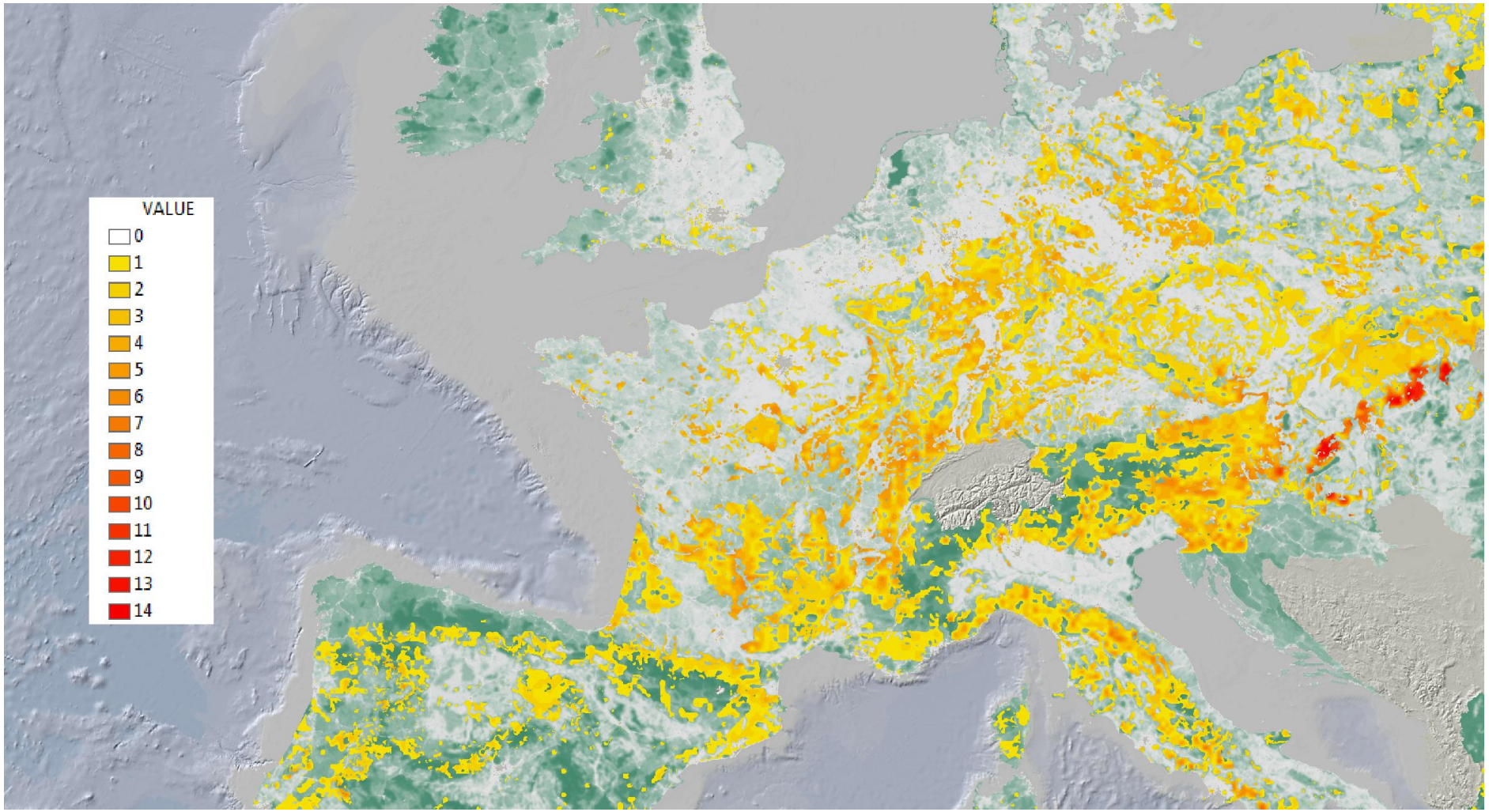
Forest: populations increase



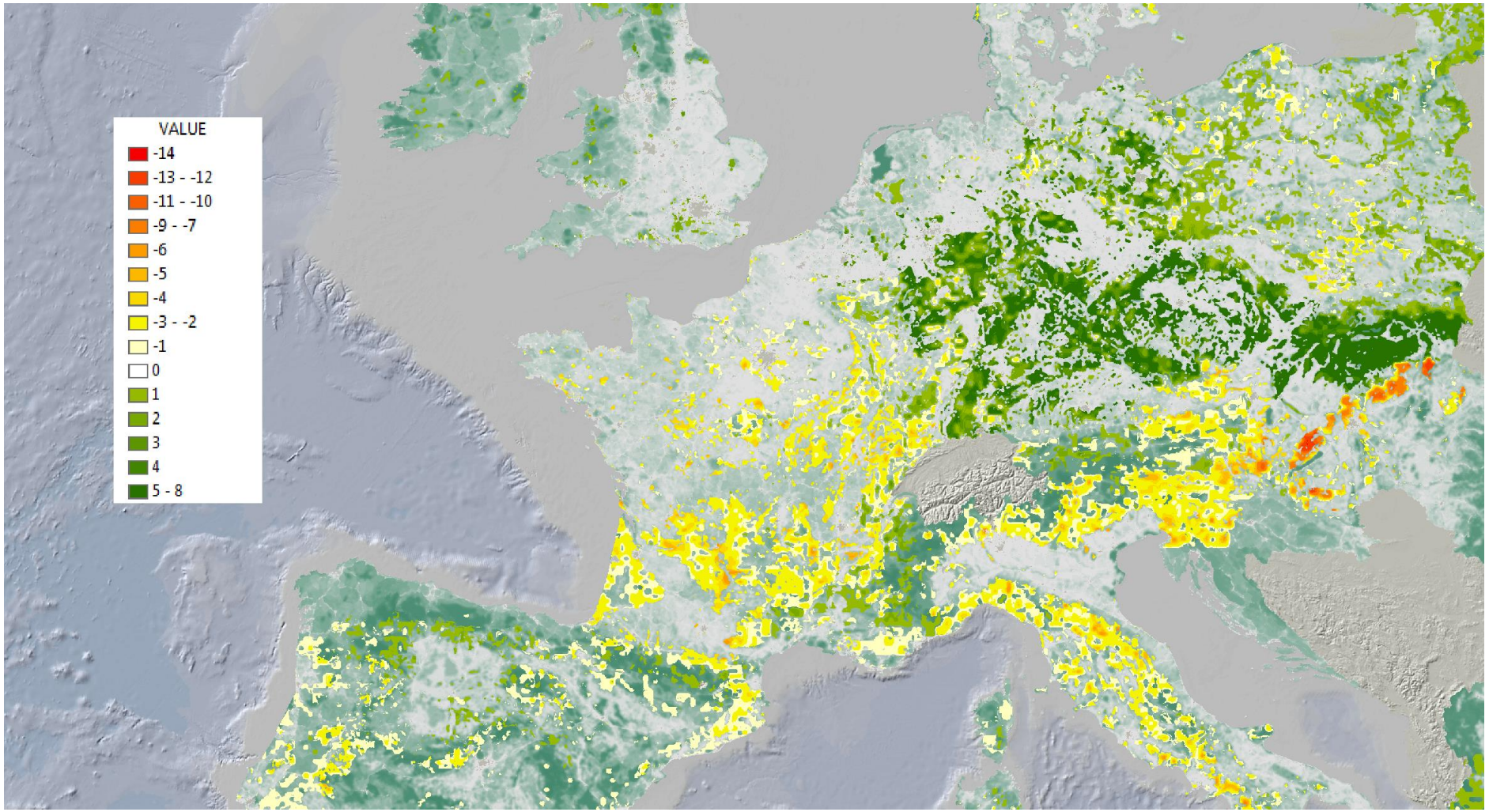
Forest: populations stable



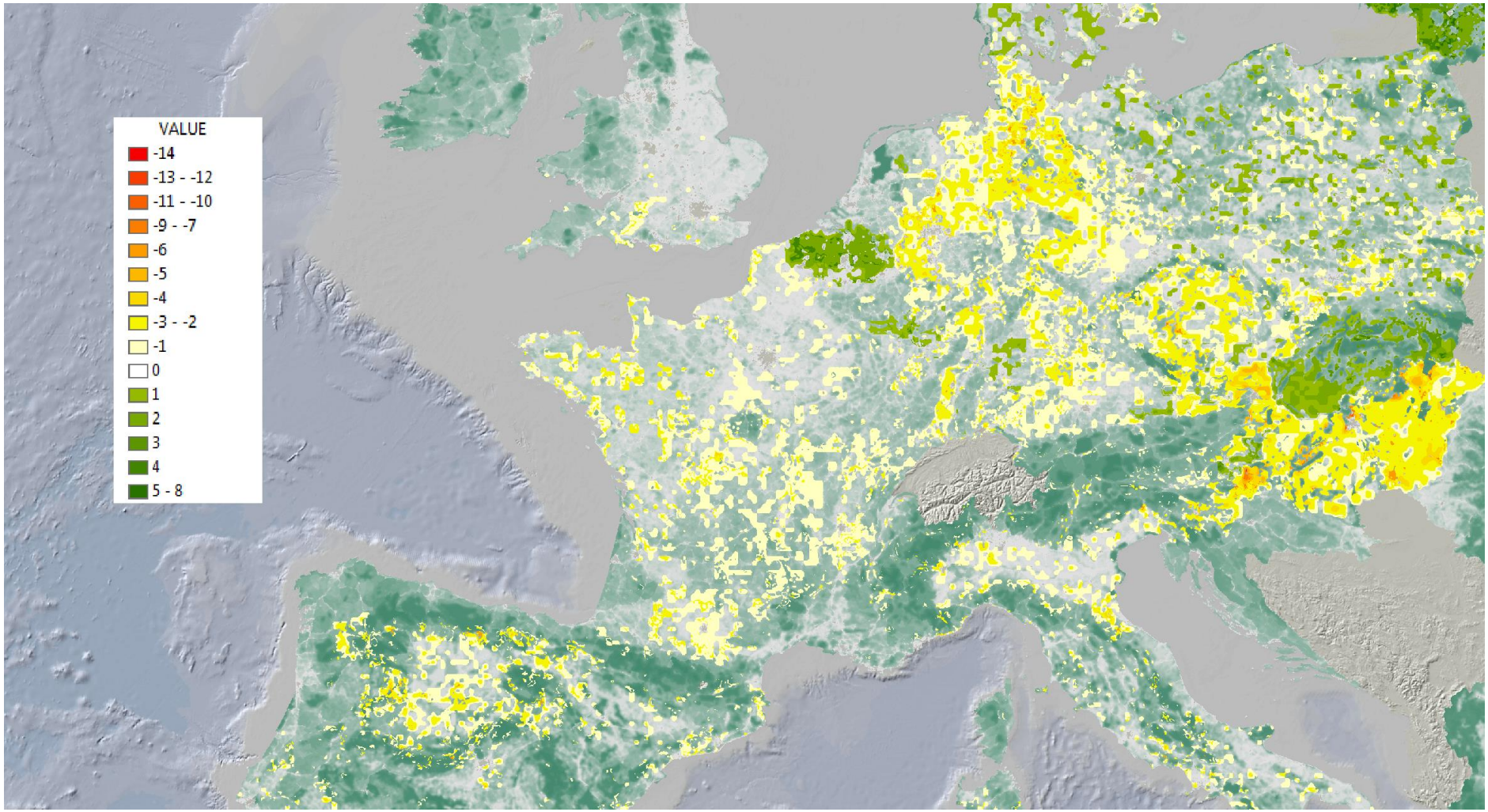
Forest: populations decrease



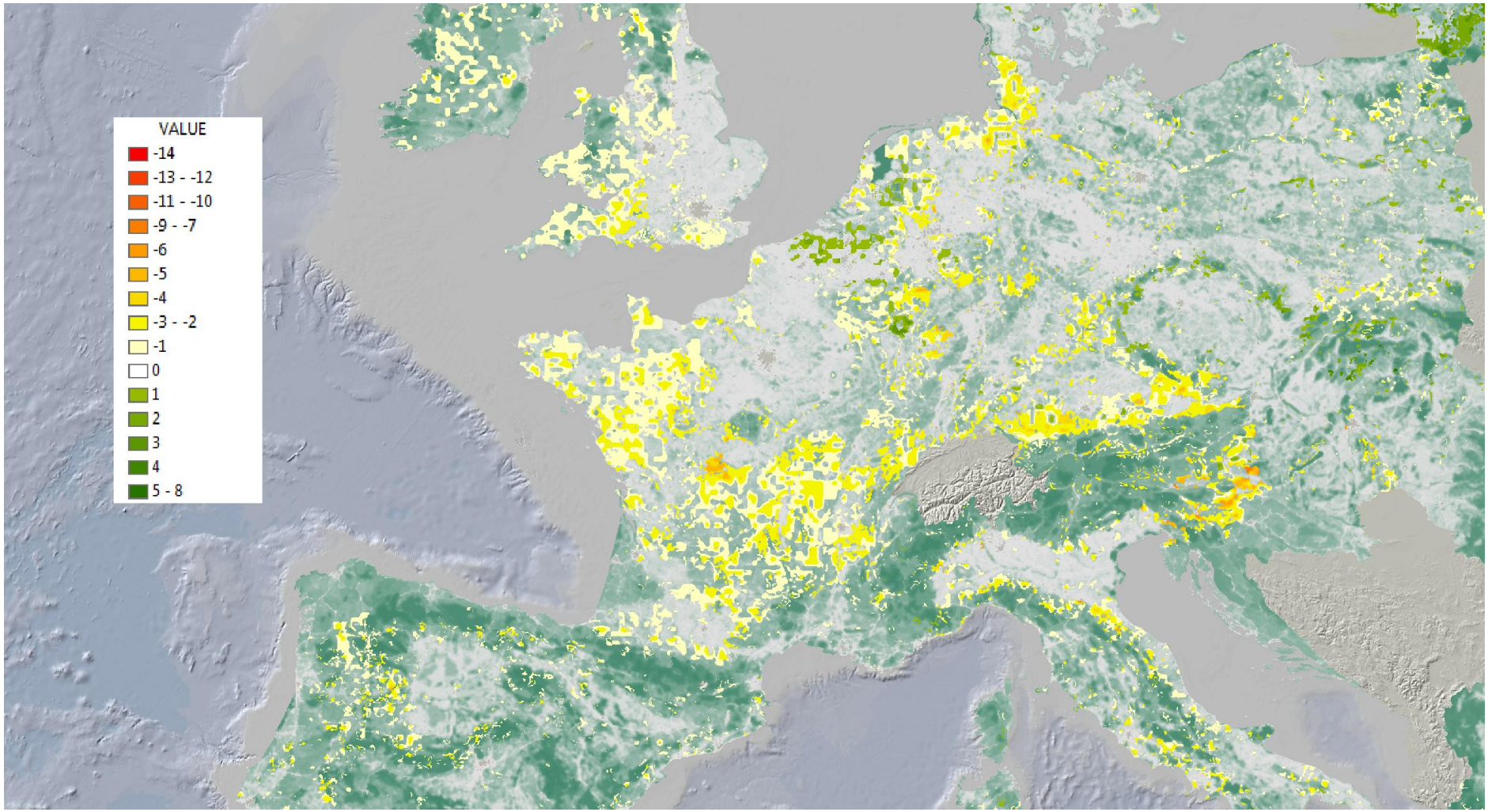
Forest species index : population increase and stable minus decrease



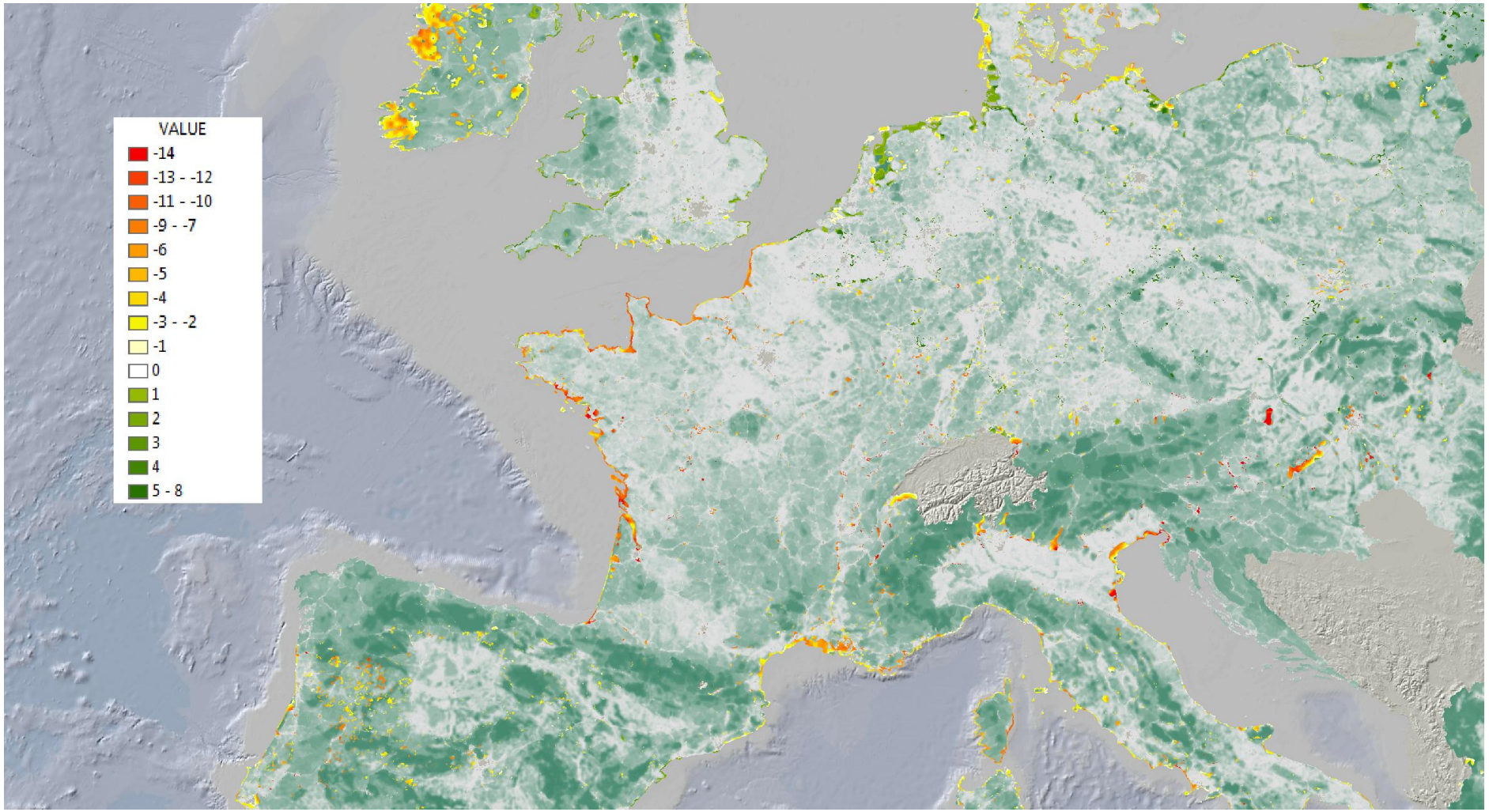
Agriculture species index



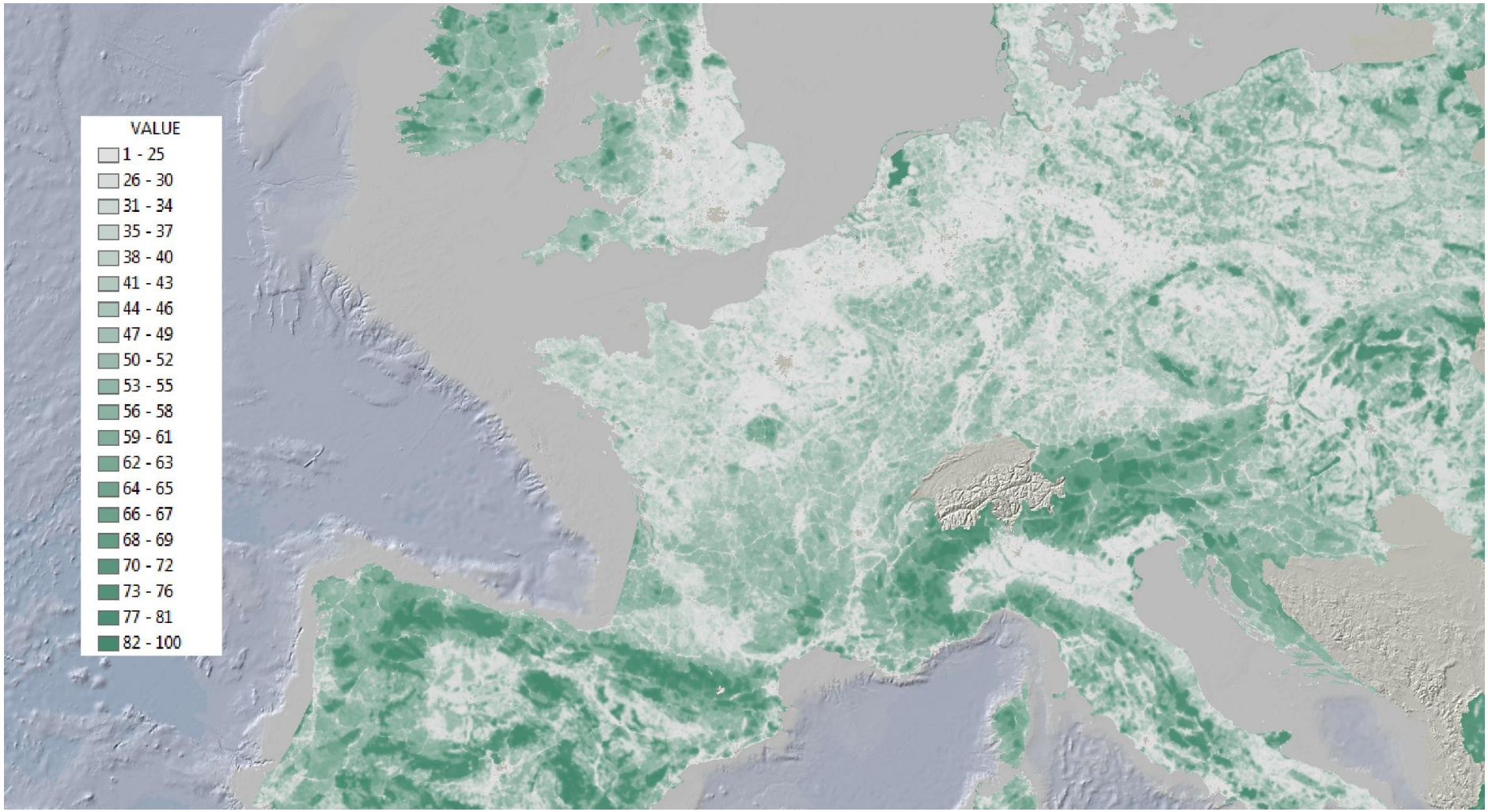
Grassland species index



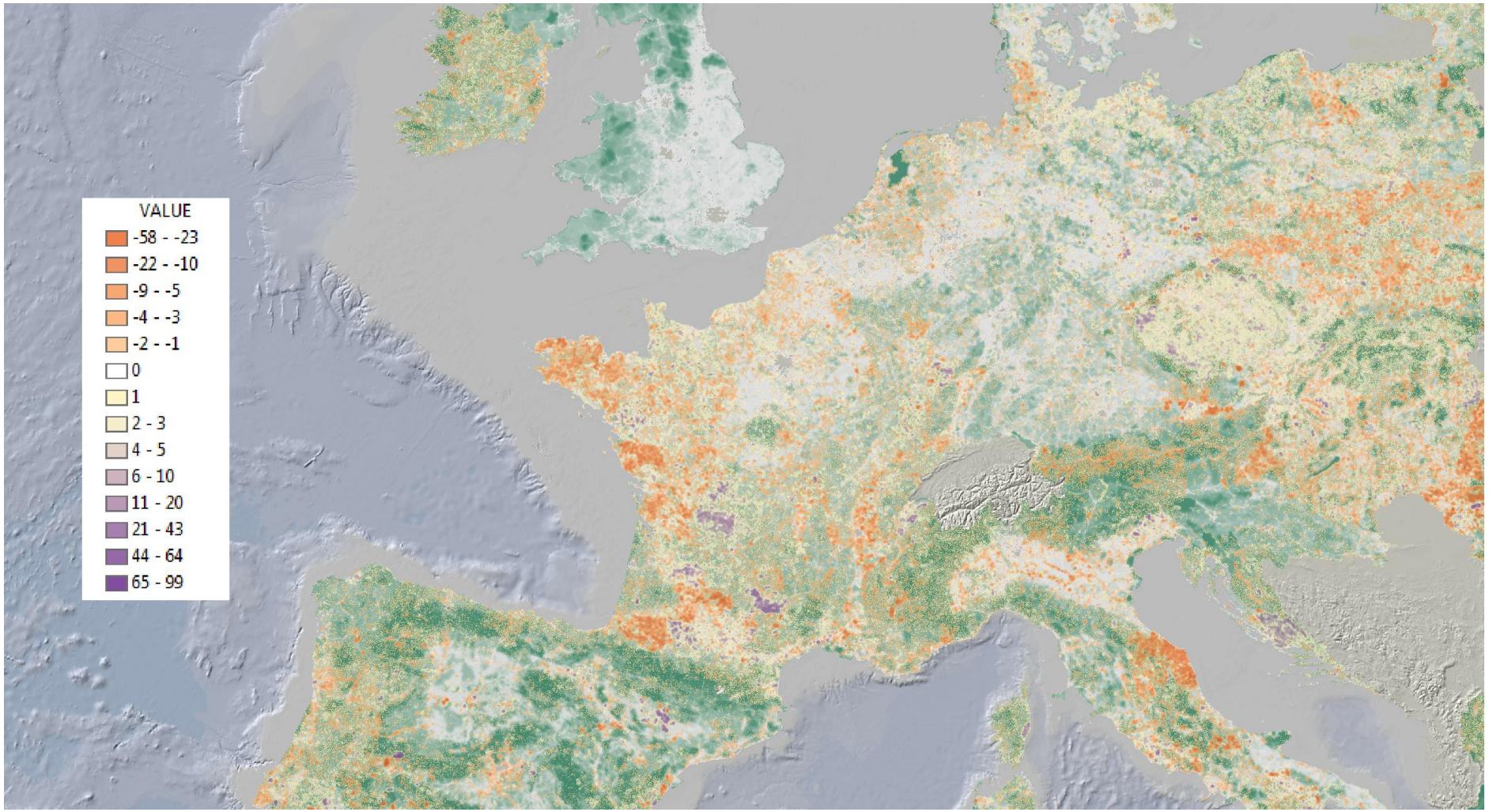
Wetland and water species index



Net Landscape Potential (nlep 2000)



Change in nlep2000 2006



Landscape capability: integrity combined with species biodiversity….