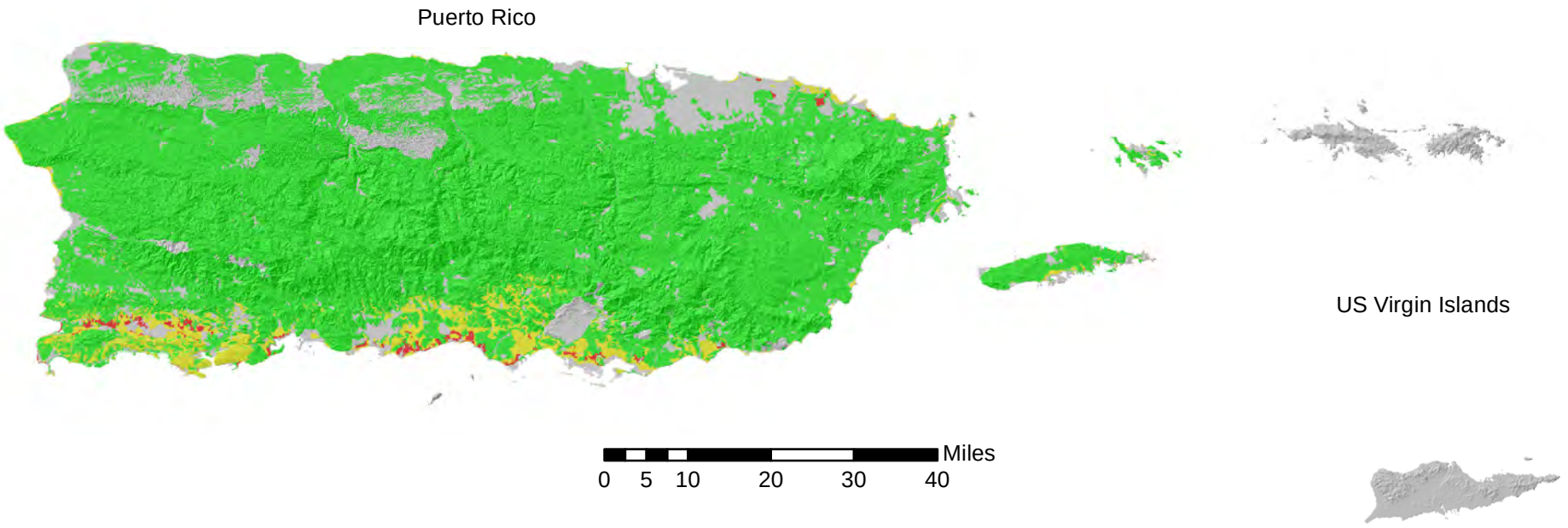
USDA United States Department of Agriculture

Soil Health - Surface Salt Concentration
USDA-NRCS Caribbean Area



Legend

Rating

- High surface salinization risk or already saline
- Surface salinization risk
- Low surface salinization risk
- Not rated or not

Summary

Soil health is primarily influenced by human management, which is not captured in soil survey data at this time. These interpretations provide information on inherent soil properties that influence our ability to build healthy soils through management. Salts of sodium, calcium, potassium, and magnesium are produced by the weathering of minerals in soils. Some salts can be added to the surface due to aeolian deposition. Excess salts can be concentrated in soils when precipitation is sufficient to move salts within the soil but of insufficient quantity to move the salts out of the soil. Salts move downward with percolating precipitation from the generally convex recharge areas of the landscape to the generally concave discharge areas. Net water movement can be upward in these areas due to evapotranspiration or water movement may be more or less horizontal due to restrictive layers or differences in water transmission rates. Excessive salt concentration in the surface of soil is detrimental to the germination and growth of crops due to the osmotic effects of the ions.