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Daily Erosion Project ground-truth analysis through its application on STRIPS sites

INTRODUCTION

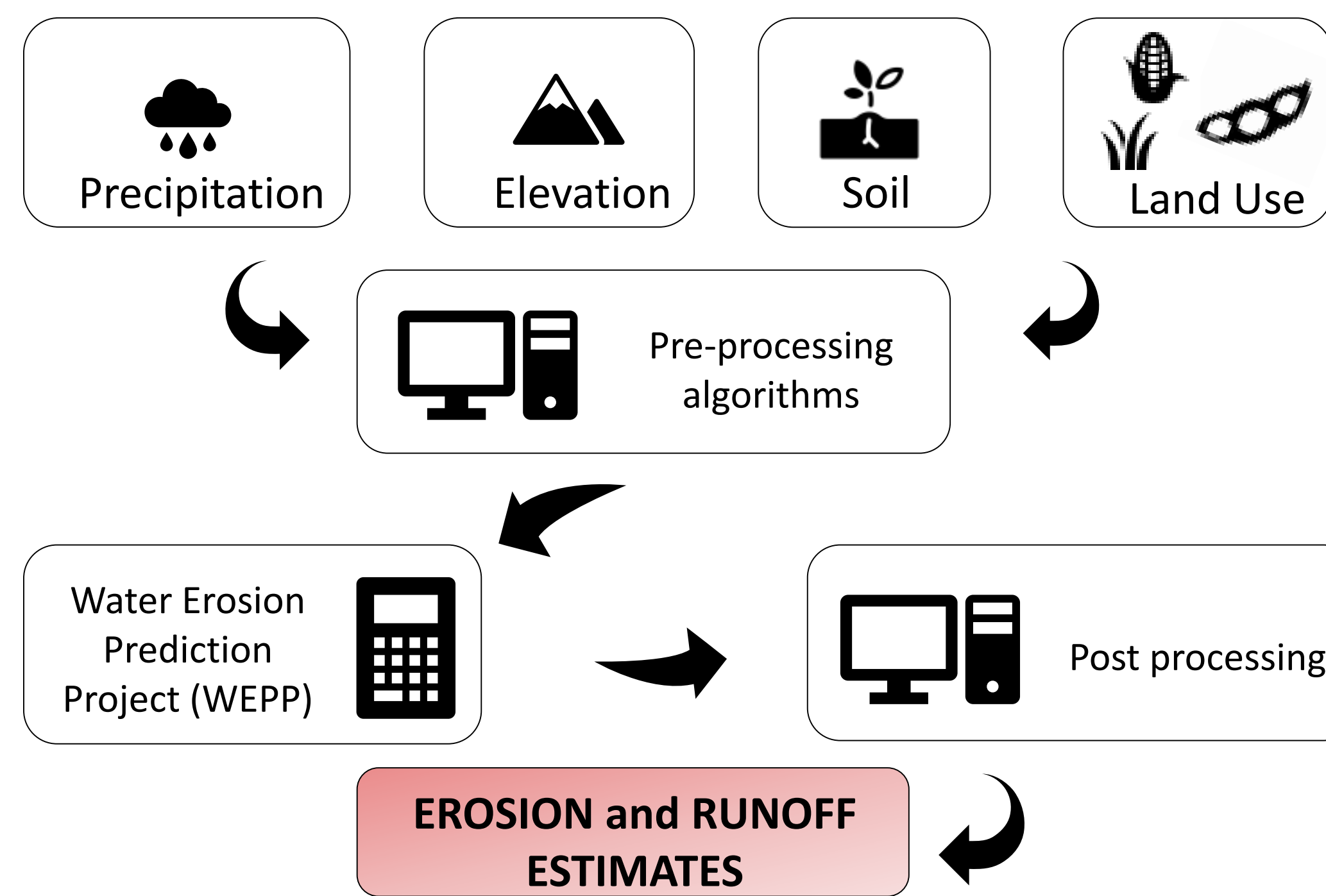
Soil erosion by water runoff and sediment transport cause substantial impacts on water quality and crop production; thus, conservation planning and watershed management are crucial to mitigate soil loss and reestablish soil health.

The Science-based Trials of Row-crops Integrated with Prairie Strips (STRIPS) have reported outstanding soil conservation effects attributed to the strategic placement of relatively small reconstructed prairie strips in row crop fields. Over several years of research, this practice has proven to be advantageous for nutrient retention, water quality, air quality, wildlife, and pollinator habitat.



METHODOLOGY

- *What are we testing?* Effect of established reconstructed prairie planted as contour filter strips on reducing hillslope runoff and sheet and rill erosion.
- *Location:* Multiple MLRAs (Major Land Resource Areas) in the state of Iowa.
- *How are we testing?* By implementing the Daily Erosion Project (DEP) and the Agricultural Conservation Planning Framework (ACPF) to quantify runoff, soil detachment, and hillslope soil loss.



EXPECTED RESULTS

Evaluation of prairie strips impact on hillslope soil loss estimates for different landscapes (Major Land Resource Areas). These results will help farmers and conservationists decide when and where prairies strips establishment is best suited.



Source: <https://www.nrem.iastate.edu/research/STRIPS/>

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