

Development of Global Maps of Fertilizer Application

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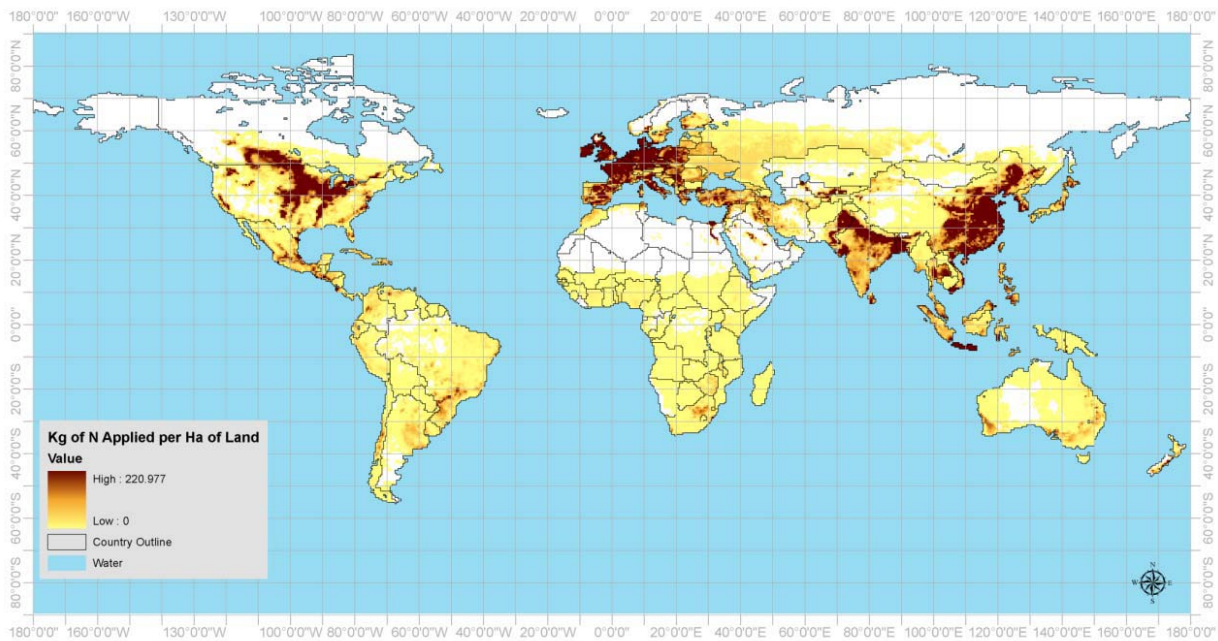
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Abstract

Agriculture has had a tremendous impact on soil nutrient balances around the world. In some regions, soil nutrients have been depleted from overuse of the land resulting in lower fertility, while in others chemical fertilizer application has led to an accumulation of excess nutrients causing water quality problems. To understand these impacts, scientists calculate soil nutrient balances at scales ranging from individual fields to entire continents. Scarce literature exists, however, describing spatially-explicit balances at a truly global scale. This paper presents some initial work towards calculating agricultural impacts on global soil nutrient balances. Spatially-explicit fertilizer inputs of nitrogen (N), phosphorus (P), and potassium (K) are presented, important components of such a budget.



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