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| Title | Nutrient Uptake by Plants from Different Land Types of Madhupur Soils | | |
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| Abstract |  |
| Three different soil series such as Gerua, Kalma and Khilgaon were identified in three different land types (high, medium high and medium low land). Soil and plant samples were collected from each land type following a catena. Soil samples were collected from surface, subsurface and substratum in each soil series and plant samples were collected from each soil series to examine how the soil characteristics affect nutrient uptake by plants. The uptake of N, P, S and Zn increased from Gerua to Kalma soil and decreased to Khilgaon. K uptake increased from Gerua to Khilgaon soils. The concentration of Fe, Mn and Cu decreased at first and then increased that were opposite to the status of N, P, S and Zn. The uptake of P and Mn were positively correlated (r2 = 0.845\*\*, r2 = 0.767\*) and the uptake of K and Fe were negatively correlated (r2 = –0.951\*\*, r2 = –0.676\*) with the soil nutrients. This indicates the variation in nutrient concentration influenced by different factors in the catena. The uptake of nutrients by plants varied significantly within the catena. Macro and micronutrients were accumulated by the plants and the soils studied in the experiment did not show any nutrient deficiency or any metal contamination. | |

**Please specify which Sustainable Development Goal (SDG) (s) falls under your research:**

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| Goal 1 | No Poverty | Goal 2 | Zero Hunger |
| Goal 3 | Good Health and Well-Being | Goal 4 | Quality Education |
| Goal 5 | Gender Equality | Goal 6 | Clean Water and Sanitation |
| Goal 7 | Affordable and Clean Energy | Goal 8 | Decent Work and Economic Growth |
| Goal 9 | Industry, Innovation and Infrastructure | Goal 10 | Reduced Inequalities |
| Goal 11 | Sustainable Cities and Communities | Goal 12 | Responsible Consumption and Production |
| Goal 13 | Climate Action | Goal 14 | Life below Water |
| **Goal 15** | **Life on Land** | Goal 16 | Peace, Justice and Strong Institutions |
| Goal 17 | Partnerships for the Goals |  |  |