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| Abstract |  |
| Brick kiln is well known as one of the main sources of air pollution; however, the pollutants produced from it do not remain in the air, they ultimately fall down to the soil and pollute the surroundings, therefore, this study was carried out to assess the status of macro (N, P, K and S) and micro nutrients (Fe, Mn and Zn, Cu) in the agricultural environment near the brick kilns of Young Brahmaputra and Jamuna Floodplain soils. Composite soil and plant samples were collected from four distances such as 250 m, 500 m, 1000 m, and 1500 m in three different sites. Sulphur (2352–3378 mg kg−1), Zn (86–156 mg kg−1) and Cu (24.7–46.9 mg kg−1) are found in the elevated levels near brick kiln soils that is released due to burning of poor quality coal and fire woods. The alarming news is that plant uptake of S and micro nutrients in the nearest areas of the brick kilns are significantly higher than the areas far from the brick production and their concentration ranges from 23 mg kg−1 to 101 mg kg−1 for Zn, 10–41 mg kg−1 for Cu, 35–1309 mg kg−1 for Fe, 26–126 mg kg−1 for Mn and 2590–mg kg−1 for S. Data indicates both soil and plant received maximum amount of micronutrients and S concentrations within 500–1000 m distances from brick kilns. Iron and Mn concentrations vary within a permissible limit but the plant uptake is high. Nitrogen concentrations is increasing with the distance from the brick kilns in both soils and plants but no definite pattern of P and K accumulation was found. Research suggested avoiding agricultural practice nearby brick kiln soils due to micronutrient contamination in order to preserve adjoined agricultural environment. | |

**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 |  |  |