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| Title | Effects of Brick Making Operations on Phosphorus and Sulphur in Agro-ecological Zones of Bangladesh | | |
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| Abstract |  |
| A study was carried out to evaluate the effects of brick manufacturing on phosphorus (P) and sulfur (S) concentrations in soil and plant collected from different distances of brick kilns in four AEZs of Bangladesh. Forty eight composite soil samples (0 - 15 cm depth) were collected from 48 points in 12 different sites at 0 m, 300 m, 800 m and 1500 m from brick kilns, where most (site 2, site 3, site 5, site 6, site 7, site 9 and site 10) of the brick kilns used coal for brick burning purposes. Plant samples (rice straw and different vegetables) were also collected from the respective fields except 0 m distances. Significantly (p ≤ 0.05) lower organic matter, cation exchange capacity, clay content and soil pH were found at 0 m distances compared to other distances. Highest concentration of total P in soil were recorded at 0 m distances and these concentrations decreased with increasing distances from the brick kilns in most of the sites; whereas available P is significantly lower at 0 m distances than that of other distances. Total and available concentration of S in soil followed the trend 0 m>300 m>800 m>1500 m. Maximum accumulation of P (69.15 mg kg-1) and S (0.14%) in plant was found at 800 m away from the brick kiln. | |

**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 |  |  |