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| Title | ASSESSMENT OF ENVIRONMENTAL QUALITY OF AN AREA ADJACENT TO THE RELOCATED TANNERY INDUSTRIES AT HEMAYETPUR, BANGLADESH | | |
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| Abstract |  |
| The deterioration of environmental quality due to wastes generated from tannery industries is an alarming global issue in Bangladesh. To assess this problem in an area adjacent to the recently shifted tannery industries at Hemayetpur, soil, water and plant samples are collected from upstream as control, secondary treatment ponds, main discharge station and downstream at 500, 1000, 2000 and 3000 m across the areas and are analyzed for environmental quality. The water samples of Dhaleswari river are slightly acidic to moderately alkaline pH from 6.55 to 10.60, high TDS from 176 to 10,433 mg/l, EC from 305 to 18,206 µS/cm, nitrate from 0.14 to 194 mg/l, sulfate from 10.72 to 8922 mg/l, moderate phosphate from 0.58 to 7.2 mg/l and low DO from 1.61 to 5.50 mg/l. It is clearly noticed that most of the water parameters exceeded WHO guideline values except pH and phosphate that indicates Dhaleswari river water quality is declining slowly. The available concentrations of nitrogen, phosphorus, potassium and sulfur in soil varies from 12 to 263, 1.19 to 38, 17 to 170, 251 to 680 mg/kg, respectively, whereas, the total concentration ranges from 0.03 to 0.14%, 0.090 to 0.14%, 0.12 to 0.48%, and 0.11 to 0.42%, respectively. In soil samples, total phosphorus and potassium concentrations are increased but sulfur decreased. The soils are found acidic in nature that have high EC 8.17 dS/m. A significant positive correlation is found with each other of nitrogen, phosphorus, potassium and sulfur concentrations in soil samples. The nutrients in plant samples have no deficiency those are within the optimum range. | |

**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 |  |  |