REMEDIATION OF HEXAVALENT CHROMIUM-CONTAMINATED SITE

Objective: To focus on a sustainable remediation technique for hexavalent chromium-contaminated site using permeable reactive wells packed with biochar as an adsorbent and scrap iron filings as a reducing agent.

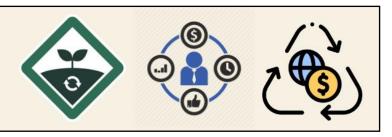
Hexavalent chromium is very mobile and soluble in water and causes toxic effects in organisms when present in excess

Damages gills, liver and kidney

Respiratory tract infections, lung

Reduced crop yield in certain plants

Problems with hexavalent chromium



Environmental, social and economic impact





Contaminated Ranipet site



Material intensity is Improper evaluation of actual site conditions.

Drawbacks of current site remediation measures

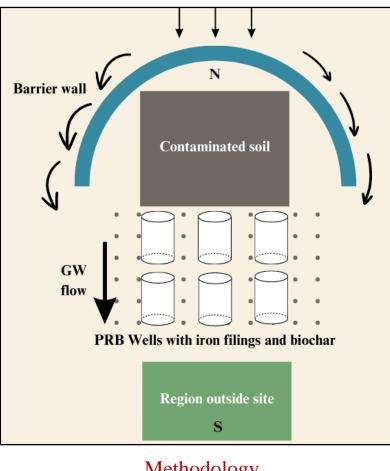


Biochar and scrap iron filings



Comparing different methods of remediation

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Methodology

