



18 July 2024

Telangana State Regional News

<p><b>South Asia's largest sewage treatment plant (STP)</b></p>	<p><b>Context:</b></p> <ul style="list-style-type: none"> <li>In a significant development aimed at enhancing environmental sustainability, <b>Hyderabad is set to inaugurate one of South Asia's largest sewage treatment plants (STP) in Nagole.</b></li> <li>This project is part of a broader initiative by the Hyderabad Metropolitan Water Supply and Sewerage Board (HMWSSB) to combat sewage pollution in the Musi River and <b>achieve 100% sewage treatment across the city.</b></li> </ul> <p><b>Project Scope and Scale:</b></p> <ul style="list-style-type: none"> <li>Costing approximately Rs 3,866.41 crore, Hyderabad is undertaking the construction of 31 new STPs with a total capacity of 1259.50 MLD.</li> <li>The Nagole STP alone has a capacity of 320 MLD, making it a cornerstone of the city's sewage treatment infrastructure.</li> </ul> <p><b>Technological Innovation:</b></p> <ul style="list-style-type: none"> <li>The Nagole STP employs <b>Sequential Batch Reactor (SBR) technology</b>, noted for its efficiency and reduced power consumption compared to conventional methods.</li> </ul> <p><b>Facility Features and Benefits:</b></p> <ul style="list-style-type: none"> <li>The Nagole STP spans <b>15 acres and includes essential components like a pump house, primary treatment unit, SBR basins, and a chlorine contact tank.</b></li> <li>It serves densely populated areas like Saidabad, Malakpet, LB Nagar, and Yakutpura, ensuring comprehensive sewage treatment and promoting environmental health.</li> <li>Benefits include preventing sewage discharge into natural water bodies, achieving complete sewage treatment within its catchment area, and enabling the reuse of treated water for agricultural purposes.</li> </ul>
<p><b>Low-Energy Nuclear Reactor Technology</b></p>	<p><b>Context:</b></p> <ul style="list-style-type: none"> <li>Hylenr, a startup based in Hyderabad, recently launched the <b>world's first low-energy nuclear reactor (LENR) using cold fusion technology.</b></li> <li>This groundbreaking development was unveiled at T-Hub, where the founders highlighted its potential implications for clean energy and sustainability.</li> </ul> <p><b>Technology Overview:</b></p> <ul style="list-style-type: none"> <li>Hylenr's LENR technology operates on the principle of</li> </ul>



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	<p>low-energy nuclear reactions, requiring minimal electricity input to generate substantial heat.</p> <ul style="list-style-type: none"> <li>The technology has received a patent from India's DPIIT, Ministry of Commerce and Industry, underscoring its innovation and viability.</li> </ul> <p><b>Applications and Benefits:</b></p> <ul style="list-style-type: none"> <li><b>Versatility:</b> LENR offers diverse applications, including space missions, steam generation, room heating, and industrial uses.</li> <li><b>Environmental Impact:</b> It promises to reduce carbon footprint significantly, emitting no nuclear waste or radiation while enhancing energy efficiency through integration with existing power systems.</li> <li>Hylenr's LENR technology represents a significant leap in clean energy innovation, aiming to tackle global challenges like climate change and energy sustainability.</li> <li>With its unique approach to nuclear fusion, Hylenr seeks to redefine energy generation paradigms, offering a promising alternative to traditional power sources.</li> </ul>
<p><b>Farmer Suicides in Andhra Pradesh and Telangana</b></p>	<p><b>Context:</b></p> <ul style="list-style-type: none"> <li>In the districts of Adilabad and Nandyal, Andhra Pradesh and Telangana have witnessed a significant number of farmer suicides, comprising over 25% of the country's total farmer suicides between 2005 and 2020.</li> </ul> <p><b>Research Insights into Root Causes:</b> A collaborative study involving researchers from Hyderabad, the USA, and Maharashtra highlighted the underlying issues faced by these farmers:</p> <ul style="list-style-type: none"> <li><b>Mental and Financial Strains:</b> According to Dr. Memdani Laila, many farmers faced mental health challenges alongside financial burdens such as inadequate income, high indebtedness, and crop failures. These factors contributed significantly to their vulnerability.</li> <li><b>Social and Economic Context:</b> The study interviewed 101 families affected by farmer suicides, revealing that a substantial number belonged to marginalized communities such as scheduled castes, scheduled tribes, and backward classes. Villages with high suicide rates often exhibited extreme poverty levels.</li> </ul> <p><b>Proposed Remedial Measures:</b> Dr. Azim and Anisha M suggested practical measures to address the crisis:</p> <ul style="list-style-type: none"> <li><b>Financial Relief:</b> Immediate financial assistance and debt</li> </ul>



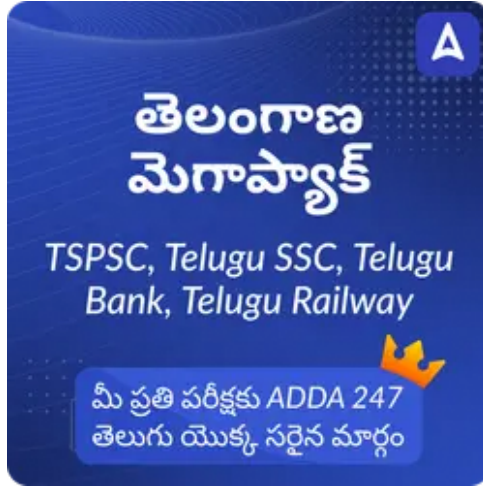
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relief measures, including moratoriums on debts and reduced interest rates, could alleviate the financial burden on affected families.

- **Psychiatric Support:** Recognizing the mental health issues prevalent among farmers, the researchers emphasized the need for psychiatric interventions and support for vulnerable individuals.



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