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Telangana State Regional News

South Asia's largest sewage treatment plant (STP)	**Context:** ● In a significant development aimed at enhancing environmental sustainability, **Hyderabad is set to inaugurate one of South Asia's largest sewage treatment plants (STP) in Nagole.** ● 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 a**chieve 100% sewage treatment across the city.** **Project Scope and Scale:** ● Costing approximately Rs 3,866.41 crore, Hyderabad is undertaking the construction of 31 new STPs with a total capacity of 1259.50 MLD. ● The Nagole STP alone has a capacity of 320 MLD, making it a cornerstone of the city's sewage treatment infrastructure. **Technological Innovation:** ● The Nagole STP employs **Sequential Batch Reactor (SBR) technology,** noted for its efficiency and reduced power consumption compared to conventional methods. **Facility Features and Benefits:** ● The Nagole STP spans **15 acres and includes essential components like a pump house, primary treatment unit, SBR basins, and a chlorine contact tank.** ● It serves densely populated areas like Saidabad, Malakpet, LB Nagar, and Yakutpura, ensuring comprehensive sewage treatment and promoting environmental health. ● 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.
Low-Energy Nuclear Reactor Technology	**Context:** ● Hylenr, a startup based in Hyderabad, recently launched the **world's first low-energy nuclear reactor (LENR) using cold fusion technology.** ● This groundbreaking development was unveiled at T-Hub, where the founders highlighted its potential implications for clean energy and sustainability. **Technology Overview:** ● Hylenr's LENR technology operates on the principle of

	low-energy nuclear reactions, requiring minimal electricity input to generate substantial heat. • The technology has received a patent from India's DPIIT, Ministry of Commerce and Industry, underscoring its innovation and viability. **Applications and Benefits:** • Versatility: LENR offers diverse applications, including space missions, steam generation, room heating, and industrial uses. • Environmental Impact: It promises to reduce carbon footprint significantly, emitting no nuclear waste or radiation while enhancing energy efficiency through integration with existing power systems. • Hylenr's LENR technology represents a significant leap in clean energy innovation, aiming to tackle global challenges like climate change and energy sustainability. • With its unique approach to nuclear fusion, Hylenr seeks to redefine energy generation paradigms, offering a promising alternative to traditional power sources.
Farmer Suicides in Andhra Pradesh and Telangana	**Context:** • 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. **Research Insights into Root Causes:** A collaborative study involving researchers from Hyderabad, the USA, and Maharashtra highlighted the underlying issues faced by these farmers: • **Mental and Financial Strains:** 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. • **Social and Economic Context:** 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. **Proposed Remedial Measures:** Dr. Azim and Anisha M suggested practical measures to address the crisis: • **Financial Relief:** Immediate financial assistance and debt

	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.