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SIMPLY WASTE ?

A monthly newsletter on waste

SOURCE: CANVA

IN THIS ISSUE

800+
Biogas plants installed

22,995
Tons of CO_2 offset every year

547
Tons of LPG substituted every year

28.8
Lakh liters of organic manure generated every year

Green Connect®
Resource Management Solutions
ISO 9001:2015

Salem's Agrarian Evolution: Yuga Priya's Green Connect Biogas Adoption Sets a Sustainable Standard

In the heart of Salem, a small-town farmer, Yuga Priya, is making waves with her commitment to sustainable agriculture. Yuga Priya, who tends to a modest farm with three cows, has embraced a transformative daily routine that showcases the power of eco-friendly innovations.

Every morning, as the sun rises over Salem, Yuga Priya diligently tends to her cows – cleaning the shed, managing cow dung, and skillfully milking her bovine companions. But her responsibilities extend beyond the barn; Yuga Priya nurtures a vibrant flower farm, adding a touch of color to the Salem landscape.

Not long ago, Yuga Priya faced the common struggles of time-consuming cooking practices, relying on traditional firewood. Balancing these demands was particularly challenging with children to care for. However, her story takes a turn with the introduction of Green Connect Biogas, a sustainable solution that has become a game-changer in her daily life.

This innovative biogas plant operates on a simple yet powerful principle – utilizing cow dung as its primary input. Yuga Priya, committed to the cause, blends 25-30 kilograms of cow dung with water each day, fueling the biogas plant through a process known as anaerobic digestion.

The impact of Green Connect Biogas on Yuga Priya's routine is significant. Cooking, once a time-consuming task, is now streamlined and eco-friendly, affording her the time to attend to other crucial aspects of her life, including caring for her children.

The benefits, however, extend beyond the kitchen. The byproduct of the biogas production, referred to as digestate, serves as a potent organic manure for Yuga Priya's flower farm. This dual-purpose application enhances soil fertility and contributes to the vibrant growth of her blossoms.

The efficiency of the Green Connect biogas plant is noteworthy, providing three hours of burning time daily.

Beyond the immediate benefits to Yuga Priya, this sustainable practice contributes to a broader environmental impact. Yuga Priya's efforts yield 1.5 cubic meters of biogas daily, a noteworthy equivalent to 18 LPG cylinders annually, reducing reliance on traditional fuel sources and minimizing the carbon footprint.

In a commendable act of Social Responsibility, Green Connect generously donated the first balloon model biogas plant to Yuga Priya. This philanthropic gesture not only transformed her daily agricultural practices but also serves as a beacon of inspiration for sustainable farming practices in communities.

Yuga Priya's journey with Green Connect Biogas is emerging as a noteworthy example of how sustainable solutions can revolutionize traditional farming practices. As her story gains attention, it underscores the potential for small-scale changes at the grassroots level to foster significant positive impacts on individuals, communities, and the environment.

Green Connect Drives Sustainable Transformation at Sundharam Fastener Limited

In the ever-evolving landscape of sustainable engineering, Green Connect continues to lead the way with impactful initiatives that redefine operational excellence. Our recent collaboration with Sundharam Fastener Limited stands as a remarkable testament to our commitment to sustainable solutions and innovative problem-solving.

At the heart of this transformative project was the diligent work of our dedicated team of Technical Engineers. The initial inspection of Sundharam Fastener's plant revealed significant challenges in the digester, balloon, and pipeline systems.

Recognizing the need for a comprehensive overhaul, Green Connect proposed a holistic solution aimed at not just addressing the immediate issues but elevating the plant's overall efficiency and sustainability.

The project kicked off with the meticulous removal of the old balloon and pipeline, setting the stage for the integration of upgraded components. Our engineering team executed this phase with precision, ensuring a seamless transition and enhanced performance. Concurrently, strategic construction work was undertaken on the digester, reinforcing its structural integrity for long-term reliability.

As part of our commitment to sustainability, we introduced a green element to the process by incorporating two tractor loads of cow dung into the revamped plant. However, a week into the operation, we encountered an unforeseen challenge – gas production did not meet expectations. Undeterred, our team revisited the plant for a comprehensive evaluation, identifying a minor issue with the water jacket.

Green Connect's agile and solution-oriented approach came to the forefront as we recommended alterations to address the water jacket's leak. These adjustments were swiftly implemented, and after an anxious two-day wait, the plant began producing gas as anticipated. This success not only showcases our technical prowess but also emphasizes Green Connect's ability to navigate challenges seamlessly.

This collaboration with Sundharam Fastener Limited exemplifies Green Connect's unwavering commitment to sustainable engineering. Beyond enhancing operational efficiency, we are proud to contribute to our partners' journey towards environmental responsibility. Our success underscores that sustainability is not just a goal for us but a driving force behind every project we undertake.

As we celebrate this achievement, Green Connect reiterates its dedication to pioneering sustainable solutions, transforming challenges into opportunities, and shaping a future where environmental consciousness is an integral part of industrial progress.

Green Connect's Pivotal Contribution to Infosys' Biogas Initiative for Sustainable Living

In a remarkable display of corporate social responsibility (CSR), Infosys collaborated with SKP Sangha, a Karnataka-based NGO, to make a meaningful impact on over 7000 village households in Karnataka . The initiative involved the donation and installation of biogas plants, with Green Connect playing a pivotal role by supplying 450 of these eco-friendly solutions.

The primary aim of this expansive project was to alleviate the reliance on traditional firewood for cooking purposes, contributing to a reduction in carbon emissions and promoting carbon neutrality. Each biogas plant installed as part of the initiative produces an impressive 2 cubic meters of biogas daily. What makes this achievement even more significant is that 2 cubic meters of biogas are roughly equivalent to 1 kg of liquefied petroleum gas (LPG). Considering that 1 kg of LPG contains around 1.5 kg of carbon, all the 7000 biogas plants neutralize a staggering 10500 kg of carbon on a daily basis.

Extrapolating this over a year, an impressive 38 lakh kg of carbon is neutralized, with Green Connect contributing to this noble cause by neutralizing approximately 2.5 lakh kg of carbon with 450 biogas plants.

At the heart of this environmentally conscious initiative is the ingenious use of cow dung as a sustainable fuel source. Each day, approximately 50 kg of cow dung, mixed with water, serves as input for the biogas plants. Through the process of anaerobic digestion, the digestate generated produces biogas. This biogas is then connected to a specialized stove, providing a clean and efficient cooking fuel for the beneficiaries.

Beyond the immediate environmental benefits, the project aligns with 11 out of the 17 United Nations Sustainable Development Goals (SDGs). The SDGs achieved by biogas - No poverty, zero hunger, good health and wellness, gender equality, clean water and sanitation, affordable clean energy, industry innovation and infrastructure, sustainable cities and communities, climate action, life below water and life on land. These goals encompass a broad spectrum of targets, ranging from poverty alleviation and gender equality to clean energy and responsible consumption. Therefore, the initiative not only uplifts rural communities but also aids corporates, like Infosys, in achieving their CSR objectives while making significant strides towards carbon neutrality.

The success of this venture highlights the potential for impactful collaborations between corporations, NGOs, and environmentally conscious entities like Green Connect. By leveraging innovative solutions such as biogas plants, these partnerships can become powerful drivers of positive change. Green Connect, in particular, takes pride in its role within this transformative activity, knowing that its contribution extends far beyond the installation of biogas plants—it resonates with a commitment to sustainability, social welfare, and a greener, more harmonious future for all.

Transforming Waste: Rural Tamil Nadu's Sustainable Power Solution

CREDIT: KALAIYARASU

In the villages of Varadharajapuram and Kanjirangal in Tamil Nadu, an innovative initiative is converting biodegradable waste into a sustainable source of electricity, providing a solution to waste management challenges and fostering cleaner, more self-sufficient communities.

In Varadharajapuram, dairy farmer S Balakrishnan proudly states, "Cow dung powers the 140 streetlights in our village." With the village generating two tons of waste daily from 800 cattle, the installation of a biogas plant proved crucial. The plant not only harnessed the power of cow dung but also addressed the environmental and health hazards caused by waste on village streets.

Kanjirangal village similarly benefits from a biogas plant fueled by wet waste from eateries, markets, and households. The plant, with a 2-ton capacity, not only cleans the village but also powers streetlights and nearby facilities, demonstrating an effective waste-to-energy model.

The operational process involves collecting kitchen and food waste, transported to a digester by an e-car. In the absence of oxygen, the digester produces biogas, used as fuel for electricity generation. The success extends beyond illumination— the nutrient-rich slurry generated serves as free fertilizer distributed to local farmers, fostering a sustainable agricultural cycle.

In Varadharajapuram, the monthly operational cost of nearly Rs 50,000 has resulted in substantial savings in the panchayat's electricity bill, exceeding Rs 40,000. In Kanjirangal, a Rs 66 lakh plant, funded by the National Rurban Mission, showcases the viability of such projects on a larger scale.

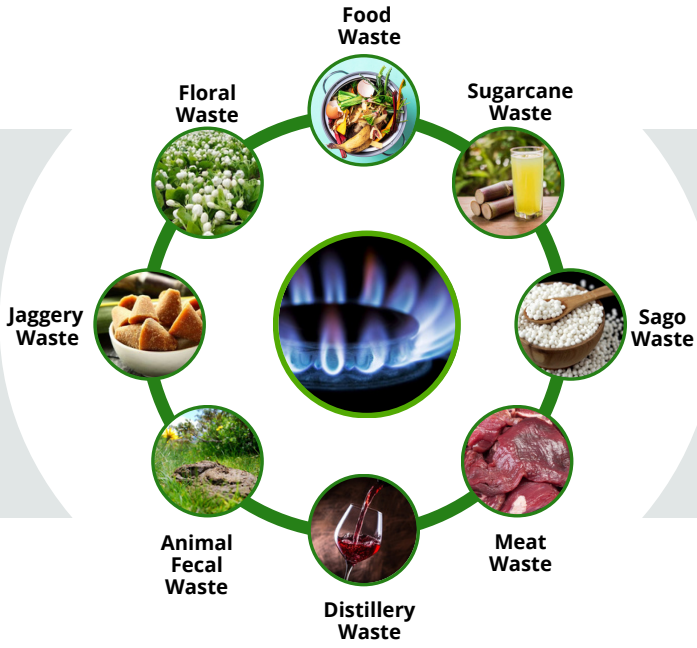
The impact extends beyond immediate villages, contributing to reduced landfill waste and preventing more than 4,000 m3 of methane, a potent greenhouse gas, from entering the atmosphere. These initiatives exemplify the potential of sustainable waste management in rural settings, providing a blueprint for cleaner, greener, and more self-sufficient communities.

Content and Image source : Earth Journalism Network

Dispelling Misconceptions: Biogas Production Beyond Cow Dung

Contrary to a common misconception, biogas isn't solely reliant on cow dung for production. In fact, a variety of organic waste materials can be effectively utilized. While certain exceptions exist, such as hard waste like animal bones and tree bark, as well as dried waste and citric items (which may acidify the process), Green Connect has successfully employed various organic wastes in biogas production. Here are some examples of organic waste materials that Green Connect has utilized to produce biogas.

What all can be fed inside Green Connect biogas plant???



Green Connect October'23 Update

Commercial Projects:

- Dhanraj Baid Jain College, Chennai, TN - Installed and commissioned 30 kg food waste plant.
- Rescuing Animal in Need (NGO), Salem, TN - Installed and commissioned 15kg Biogas plant.

Accessories Delivered:

- Chettinad Cement Corporation Pvt Ltd, Ariyalur, TN - Biogas Booster has been supplied and installed.

Service:

- JSW Steel Limited, Mettur, TN - Biogas smart flowmeter has been serviced.
- Emerald Valley Publc School, Salem, TN - Sewage Treatment Plant water flow service.
- CSI, Salem, TN - Biogas motor has been serviced.
- Individual, Ayothiyapattinam, Salem, TN - Domestic biogas plant stove has been serviced.

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