



Why COP31 Could Be the Biogas Sector's Defining Moment

A business appraisal of the opportunities arising from Antalya 2026

When world leaders gather in Antalya, Türkiye, this November for COP31, the agenda will look different from any previous UN climate summit. Türkiye's presidency has placed waste - and specifically the methane it generates - at the very top of its action agenda. For the biogas sector, which has spent years making the economic and environmental case for turning organic waste streams into usable energy, this is not a marginal policy shift. It is the kind of institutional alignment that changes markets. The question for businesses is how quickly they can position themselves to take advantage of it.

A presidency built around waste

Türkiye has ranked the "rapid reduction of waste-derived methane emissions" as the number one priority in its COP31 action agenda - ahead of energy transition, adaptation finance and every other item on a list of 14 priorities. This is the personal project of Turkish first lady Emine Erdoğan, whose Zero Waste Foundation has already shaped domestic policy at national scale and successfully lobbied the UN for a global Zero Waste Day. At COP31, that platform will go global.

Alongside waste, COP31 President Murat Kurum - Türkiye's Minister of Environment, Urbanisation and Climate Change - has pledged to bring clean cooking access "to the centre of the global agenda," in strategic partnership with the International Energy Agency (IEA).

The IEA will conduct dedicated research on the impact of waste and recycling on climate change to inform the presidency's agenda - and Kurum has said a new financing mechanism will be created to match the right projects with the right capital, making access to climate finance "as easy as possible."

For biogas operators across the feedstock spectrum - municipal solid waste, farm manures and slurries, crop residues, sewage sludge and landfill gas - both pillars of the Turkish agenda present clear opportunities.

The momentum building behind COP31



The foundations for Türkiye's action on waste agenda were laid in Baku and Belém, at COPs 29 and 30 respectively. Building on the Declaration on Reducing Methane, the NOW! (No Organic Waste) Initiative was launched in 2025 as the first global effort to eliminate organic and food waste, mobilising an initial \$30 million from the Global Methane Hub toward a \$10 billion target, with 25 cities committed to delivering the Global Methane Pledge to cut 30% of their waste methane by 2030.

A separate ministerial declaration connected waste management to the circular economy and climate finance for the first time in a structured way.

At COP30, 23 countries also signed the Belém 4× pledge - a commitment to quadruple sustainable fuel production and use by 2035, explicitly including biogas and biomethane alongside hydrogen and synthetic fuels.

Türkiye is building directly on these commitments. The Istanbul Declaration on Zero Waste was adopted on the fringes of COP30, committing countries and organisations to circularity and resource efficiency.

A Zero Waste Forum was held at the beginning of June as a precursor to the main conference - a clear signal that the presidency intends to arrive in Antalya with concrete plans rather than aspirations. Charlotte Morton OBE, Chief Executive of the WBA, was invited to present the key role of biogas in delivering the COP31 objective on waste.

The feedstock portfolio: from farm to landfill

One of the structural advantages of the biogas sector is the breadth of its feedstock base. While clean cooking and rural resilience agendas tend to focus on household and community-scale digesters fed by manures, slurries and crop residues, the sector's opportunity set is considerably wider.

Farm manures and slurries represent one of the most scalable feedstocks, particularly in regions with intensive livestock agriculture. Anaerobic digestion of manure reduces direct methane and nitrous oxide emissions from agriculture - itself a priority under the Global Methane Pledge - while producing digestate as a high-quality fertiliser substitute that can replace synthetic inputs and help restore soil health.

Crop residues and planned cover crop rotations offer additional feedstock volumes that complement on-farm digesters, particularly where residue burning is the current default - still common across parts of South and Southeast Asia and Sub-Saharan Africa, and a source of both greenhouse gas and air quality problems.



Municipal solid waste processed through mechanical biological treatment and anaerobic digestion is the anchor feedstock for city-scale plants, and COP30 produced a named pipeline of cities now actively moving from commitment to procurement.

The NOW! Initiative launched at Belém engaged 25 cities across 18 countries in its initial cohort. The Food Waste Breakthrough - a parallel initiative launched at the same conference - named city champions including Amman, Bangkok, Curitiba, Dar es Salaam, Florianópolis, Kisumu, Mexico City, Milan and Paris. Lagos, Rio de Janeiro and Santo Domingo have since finalised methane reduction plans, with others nearing launch.

In Brazil, the post-COP30 Mutirão Programme has mobilised over 30 cities into bankable project pipelines, with waste management projects expected to treat approximately 20,000 tonnes of organic waste per year and avoid up to 35,000 tonnes of CO₂e in methane emissions annually.

Major climate finance initiatives and institutions such as the German government's International Climate Initiative (IKI) and the Green Climate Fund (GCF) have moved to include methane abatement from the waste sector as one of their priorities for projects funding.

For technology suppliers, project developers and financiers, these are not aspirational targets - they are funded, named programmes with municipal backing and, in many cases, active partner searches are underway.

Sewage sludge is a consistently available, high-methane-yield feedstock that remains underutilised in much of the developing world. Co-digesting sewage with food waste or agricultural slurry can significantly improve plant economics, and several utilities in middle-income markets are beginning to treat wastewater biogas as a revenue stream rather than a disposal problem.

The board of the Bangalore Water Supply and Sewerage Board has recently given the go-ahead for a public private partnership to be created, to convert raw biogas from five sewage treatment plants into compressed biogas.

Landfill gas, often treated as a separate sector, is in practice the largest single source of biogas by volume and among the most immediately capturable. In the United States alone, landfill gas represents 23% of operating biogas systems but captures 72% of all biogas produced nationally - reflecting landfills' scale advantages.



Globally, the landfill gas capture and utilisation market was valued at ~\$3.55 billion in 2025 and is forecast to reach between ~\$5-7 billion by 2035, growing at over 7% CAGR, by commercial market analysts (Market Research Future-Insight Ace Analytics). The technology is mature and the methane abatement credit revenues - which can be substantial at scale - increasingly make projects financially attractive on commercial terms without subsidy dependency.

São Paulo state recently inaugurated Brazil's largest biomethane production facility, capturing landfill gas at its Paulínia site, while India and Singapore have signed collaboration agreements for integrated landfill gas and agri-biogas systems. For companies with experience in landfill gas extraction and upgrading, the developing world's rapidly growing urban waste infrastructure represents a long-term project pipeline that is only beginning to be tapped.

The clean cooking imperative

The IEA estimates that 2.3 billion people worldwide - predominantly in the Global South - are still relying on charcoal, firewood and waste for cooking, with severe consequences for both health and climate. The COP31 presidency has named this as a central challenge for the conference, and the United Nations Development Programme (UNDP) and Food and Agriculture Organisation (FAO) launched a joint report at COP30 providing practical guidance on how clean cooking can be integrated into national climate plans to unlock investment.

For the biogas sector, small-scale anaerobic digestion has a three-decade track record in this space. China had installed approximately 42 million household digesters by 2015. Bangladesh, Botswana, India, Nepal and Vietnam have all run national household biogas programmes with development finance support. The lessons from these programmes - on what drives sustained adoption versus abandonment - are now well documented.

The business model for clean cooking biogas is fundamentally different from grid-scale biomethane. It relies on simple, locally manufactured digester designs, community-level servicing networks and often some form of subsidised access to capital for rural households.

Technology suppliers, NGO programme partners, microfinance institutions and carbon credit aggregators all have distinct but complementary roles. The carbon credits generated by replacing traditional biomass with biogas in clean cooking contexts are among the most credible available under voluntary and compliance markets - a commercial angle that is attracting growing attention from corporate buyers with net-zero commitments.



The investment landscape

The global biogas market is forecast to grow at around an aggregate 6-7% CAGR through 2035 (forecasts range from 4.2% (Grand View Research, Straits Research) to 9.36% (Fortune Business Insights) to 7.75% (Market Research Future)).

Farm biogas alone saw \$835 million in new investment in the United States in 2025, with 40 new farm-based projects coming online and methane capture from agricultural sources rising 11% in a single year. Industry-wide, US biogas capture capacity grew by 7.5% in 2025, to over 780 billion cubic feet per year. These are advanced-market figures, but they point to the direction of travel globally as policy frameworks tighten and carbon pricing mechanisms spread.

The financing challenge remains real, however, particularly for smaller projects in lower-income markets. Biogas projects are capital-intensive and long-term, and they operate in policy environments that can shift. Blended finance structures - combining concessional development finance with commercial equity and debt - are now the established model for making frontier-market projects bankable.

The Global Methane Pledge, COP29 Declaration on Reducing Methane, COP30 NOW! Initiative, and COP31 presidency's promised project-matching mechanism all feed into this structure, and businesses that can present investment-ready projects with verified methane abatement and clear revenue streams are well positioned to access the capital that is accumulating behind these commitments.

Where to focus in 2026

Three near-term priorities stand out for businesses assessing their COP31 positioning.

First, engage with the COP31 action agenda process now. The presidency's Zero Waste Forum reached a clear conclusion – disposal is not a strategy. Systems that recover value before materials become waste, like anaerobic digestion, are; they create jobs, reduces costs, improve public health and open markets. Composting, biogas, landfill gas recovery: these turn what was a liability into a revenue stream. Companies with deployable technology or project development pipelines should be visible in that process.

Second, build or strengthen carbon revenue streams. The linkage between biogas projects and verified methane abatement credits is becoming more bankable as monitoring, reporting and verification frameworks improve - a theme that the IEA–COP31 research partnership will reinforce. Projects that can stack carbon revenue with energy sales and digestate sales are significantly more financeable.



Third, take landfill gas seriously as a developing-world opportunity. While small-scale digesters attract most of the clean cooking narrative, landfill gas from the growing urban waste infrastructure of Africa, South and Southeast Asia represents a large, near-term, technically straightforward opportunity that is currently undercapitalised relative to its potential.

Conclusion

WBA has spent the past decade making the case on behalf of the global biogas sector that waste is a resource, not a liability. COP31 in Antalya is the moment when the policy world is most likely to agree - and act on it. Türkiye's presidency, backed by the momentum of COP30 commitments, the Global Methane Pledge and a new IEA partnership, has created an unusually concentrated set of political and financial tailwinds for the sector across its entire feedstock range.

Businesses that move early - on projects, partnerships and policy engagement - will find themselves well placed as the capital and the mandates converge. Those that wait for the conference to conclude before assessing the opportunity may find the best positions already taken.