Introduction to the

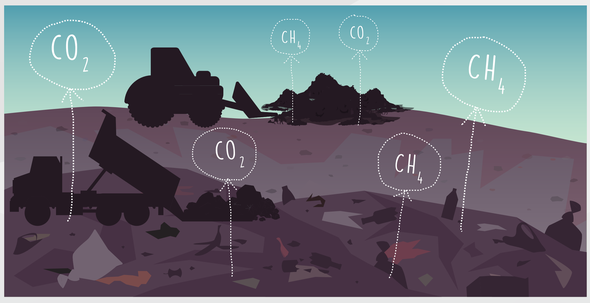
ARGENTINA LANDFILL PROTOCOL

CLIMATE ACTION RESERVE

The Reserve's Argentina Landfill Protocol provides guidance on how to quantify, monitor, report, and verify greenhouse gas (GHG) emission reductions associated with installing a landfill gas collection and destruction system at a landfill located in Argentina.

WHY IT'S NEEDED

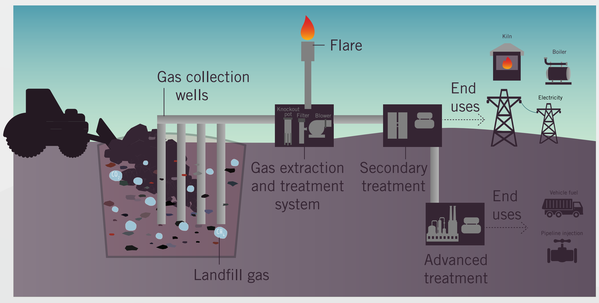
Argentina generates nearly 14 million tons of municipal solid waste per year, which is estimated to contribute 23.3 million metric tons of CO_2e in greenhouse gas emissions. Sixty-five percent of this waste is deposited in landfills, with organic material accounting for 44 percent of the solid waste composition.



The bacterial decomposition of organic material and oxidation of solid waste produces landfill gas, which is composed of methane (CH_4) and carbon dioxide (CO_2), potent GHGs that contribute to the global climate crisis. Without incentives to install landfill gas capture and destruction systems, Argentina's waste sector would continue to experience waste management challenges and produce a significant source of methane emissions.

HOW IT WORKS

Landfills in Argentina that install or expand a landfill gas collection and destruction system following the rigorous guidelines and accounting rules in the protocol may generate carbon credits for the destruction of GHGs that would otherwise be released into the atmosphere.



Landfill gas collection and destruction systems consist of technologies that enable or enhance the collection of landfill gas (such as wells, pipes, blowers, and caps) and convey it either to a destruction technology (such as flares) or to an energy recovery system (such as engines, generators, or boilers). The project achieves methane reductions to benefit the climate and produces high-quality carbon credits that can be sold in the carbon market, helping to offset the system costs.

ELIGIBILITY

Location: Argentina

Project start date: ≤90 days — No more than 90 days after landfill gas is first destroyed and submitted within 12 months of becoming operational

Crediting period: 10 year term, which can be renewed twice

Additionality: Meets performance standard test (installation or expansion of qualifying collection and destruction device) and legal requirement test (not required by law)

Regulatory compliance: Compliant with all applicable laws

Social and environmental safeguards: Requires free, prior and informed consent; ongoing notification and participation; labor and safety compliance; dispute resolution; air and water quality compliance; and mitigation of pollutants

ENSURING HIGH QUALITY

IN THE PROTOCOL

GHG REDUCTIONS quantified and verified on at least an annual basis, with verification performed by an independent, accredited, and trained third party verification body

INSTRUMENT QA/QC:
- INSPECTED on a quarterly basis
- FIELD CHECKED FOR CALIBRATION ACCURACY by a third-party technician for each reporting period
- CALIBRATED by manufacturer or certified third-party calibration service per manufacturer's guidance or every 5 years

GHG emission reductions from a landfill project are quantified by comparing **actual project emissions** to baseline emissions at the landfill

Exclusions:
- CO2 emissions associated with the generation and destruction of landfill gas (biogenic emissions)
- CO2 reductions from the displacement of fossil-based grid delivered electricity or natural gas
- bioreactors (as it is unclear what effects the bioreactor may have on the fugitive methane emissions relative to baseline conditions)
- landfills that re-circulate a liquid other than leachate in a controlled manner

CONTINUOUS MEASUREMENTS of the flow of landfill gas delivered to each destruction device, fraction of methane in the landfill gas delivered to each destruction device, and the operational activity of the destruction device

RECORD-KEEPING REQUIREMENT to support independent verification and historical documentation; must keep all information outlined in protocol for a period of 10 years after the information is generated or 7 years after the last verification

CONTINUOUS MONITORING of landfill gas temperature and pressure

IN THE DEVELOPMENT PROCESS

MULTI-STAKEHOLDER EXPERT WORKGROUP formed with a balance of industry representatives, project developers, environmental NGOs, verification bodies, independent consultants, academia, and government bodies

PUBLIC COMMENT PERIOD with staff review and response to each comment received

LOCAL STAKEHOLDER ENGAGEMENT to identify and incorporate applicable laws, norms, and conditions specific to the landfill sector in Argentina

CONSIDERATION AND ADOPTION BY THE RESERVE BOARD OF DIRECTORS during open session of the Board meeting, where members of the public have the opportunity to provide further comment directly to the Board

RESERVE RESOURCES

- Monthly call for methane (landfill and livestock) project developers in Latin America and the Caribbean (LAC)
- Monthly call for LAC verification bodies
- Verifier trainings
- Landfill Protocol QA/QC requirements training
- Landfill Project Data Report to assist project developers in identifying high areas of risk, highlight important aspects of the protocol, and facilitate verification
- Project System Diagram example to assist in the creation of the landfill's project diagram, which is required for project registration

Sources:
https://climateactionreserve.org/how/protocols/waste/argentina-landfill/
https://wedocs.unep.org/bitstream/handle/20.500.11822/34919/Roadmap_ES.pdf
https://climateactiontracker.org/countries/argentina/policies-action/
https://ciam.ambiente.gob.ar/images/uploaded/recursos/373/Informe_del_estado_del_ambiente_2022.pdf