

# Biogas: Present and Future - State of the Art

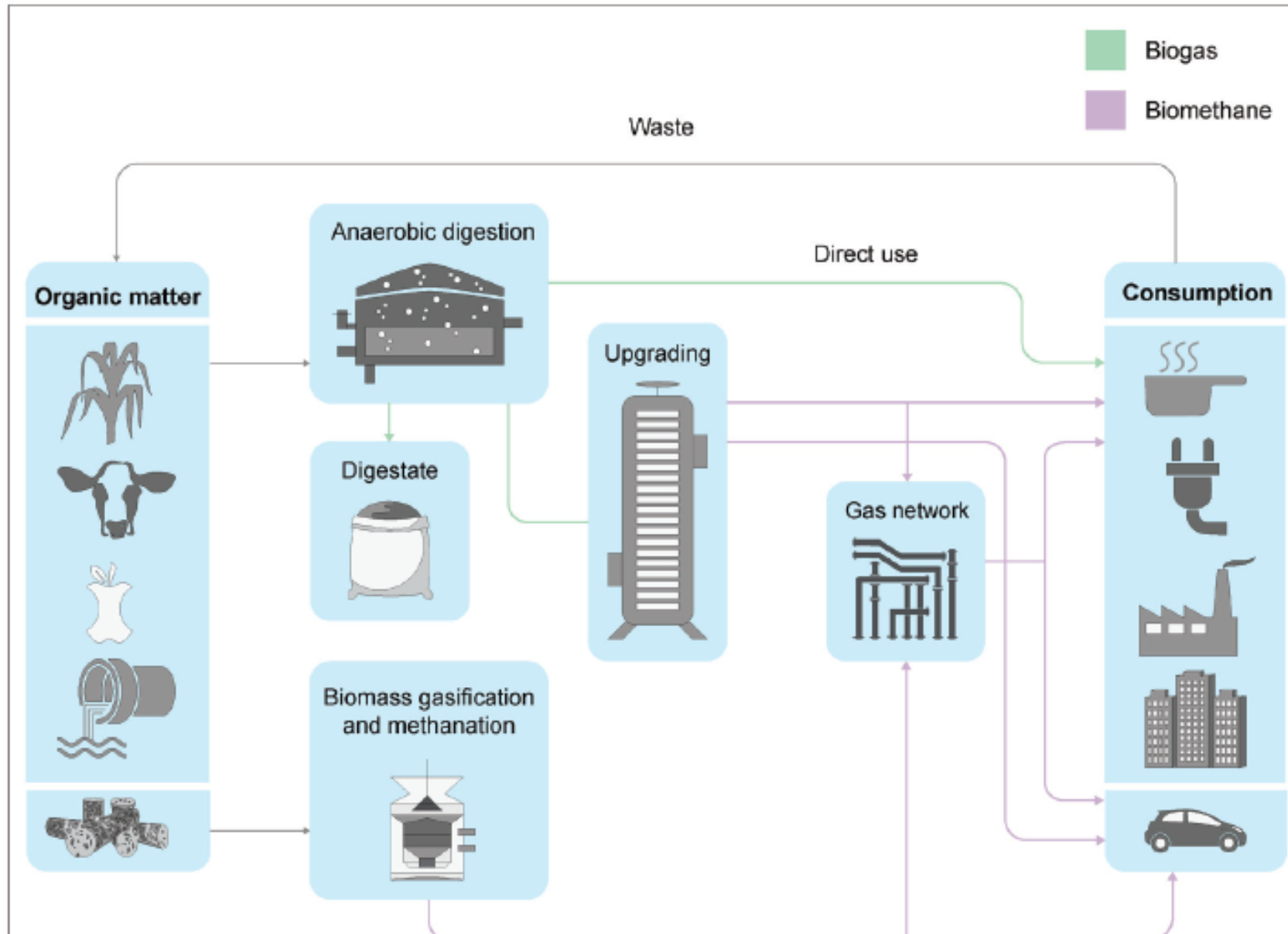
Zambia

Source of diagrams acknowledged

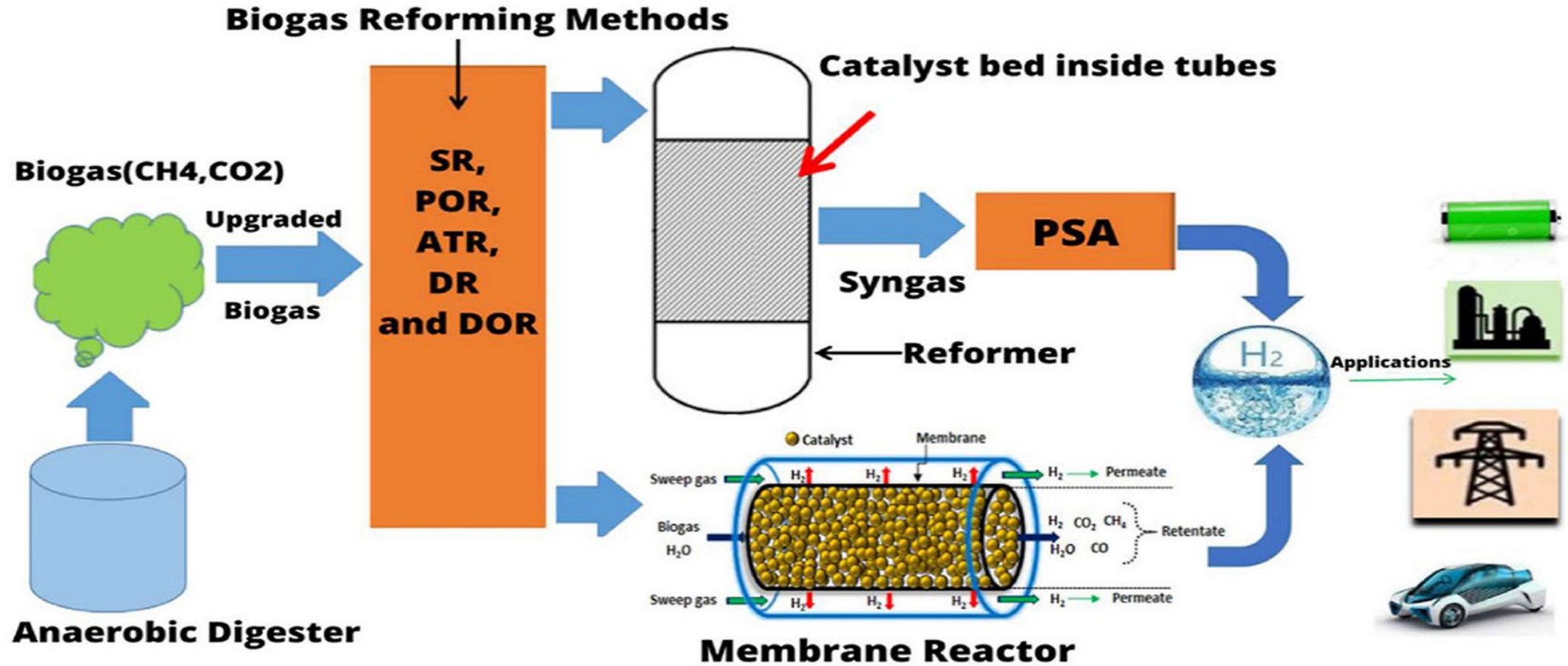
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# Biogas and biomethane production pathways



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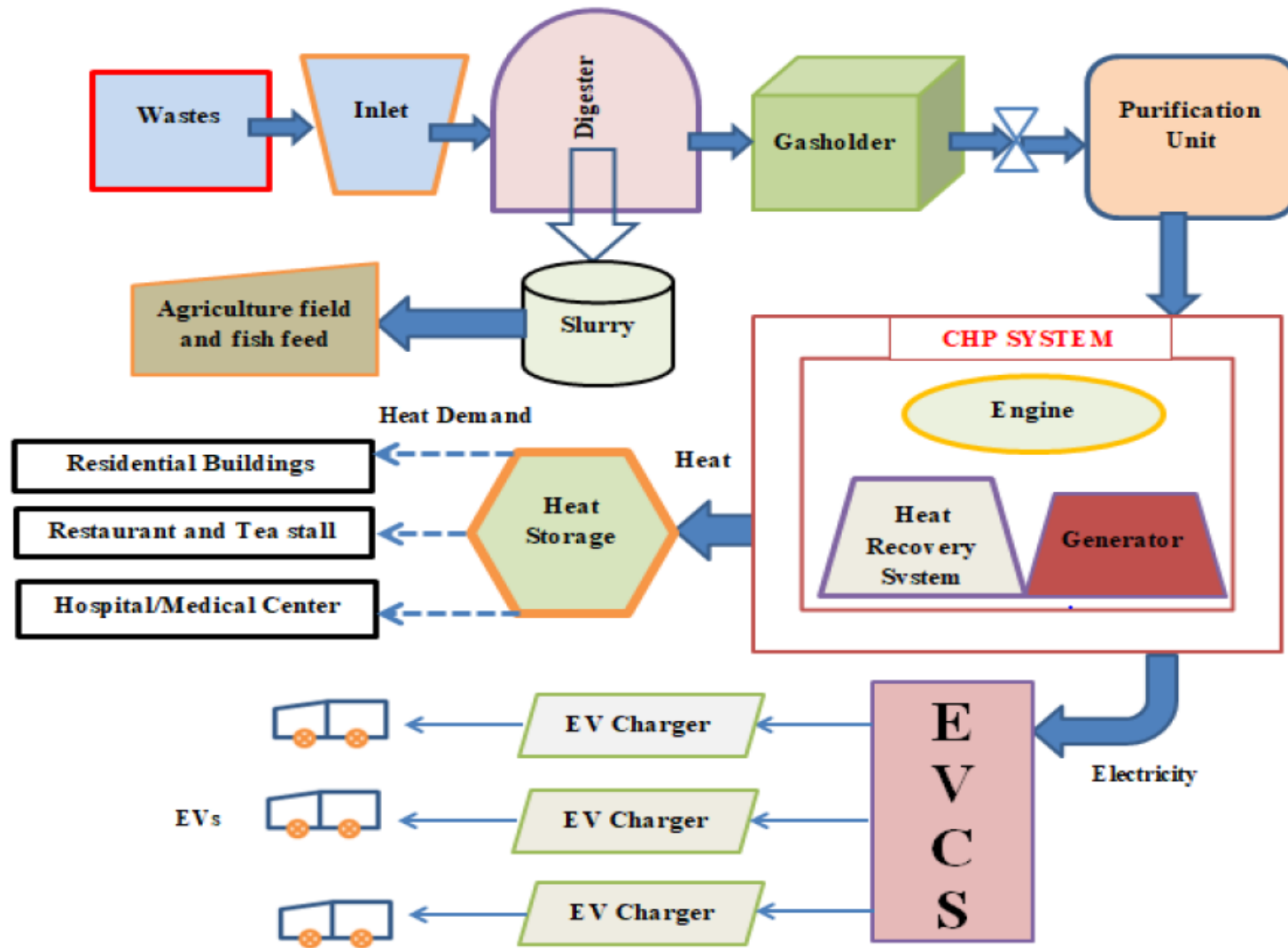


Figure 2. Conceptual diagram of proposed Biogas-based EVCS.

# Zambia's Biogas Context

- In 2020, MoE undertook a Bioenergy and Food Security (BEFS) Assessment with support from the Food and Agriculture Organization which revealed that the country has over **3 million tons of cattle, pig, chicken and goat manure** which has the potential to produce approx. **2370 TJ of biogas** annually
- The results of the BEFS assessment also estimated that **biogas could meet 3% of the national energy demand**. Further, co-digestion of cattle manure with crop residues such as maize stover, cotton stalk, rice straw, sunflower stalk, wheat straw and sorghum stalk, could **raise biogas production from 3% to 5% of the target energy demand**.
- Currently over **4000 domestic biogas systems** have been installed in Zambia.
- MoE has also installed seven (7) bio-digesters in boarding schools and colleges in efforts to reduce wood fuel consumption in those institutions
- MoE receives a number of Expressions of Interest (EoI) in regard to installation of Bio-digesters, one EoI of interest is one company which owns over 100, 000 cattle which wants to install a bio-digester not only for heating but lighting also to ensure effects of seasonal load-shedding are reduced
- Though the Technology is still in its nascent stage of development, there is a lot of interest and the TA project will inform policy and strategic development in the Biogas Technology to ensure all facets of this Biogas technology are adequately explored and implemented

**THANK YOU**

