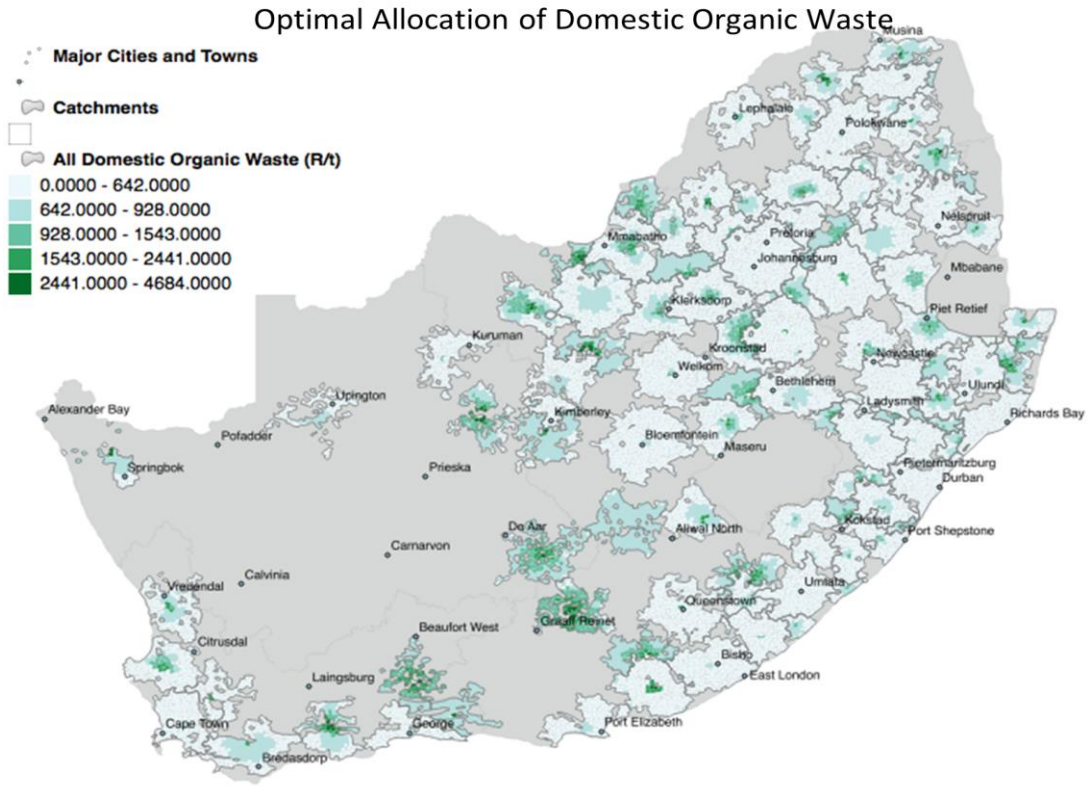
THEME: FEASIBILITY	Prepared by: Wim Hugo, SAEON

All Serviced Organic Waste - Biogas Digesters



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Date: 2015

Meta-Data

Title	*All Serviced Organic Waste - Biogas Digesters*
File(s)	*WP10_07_AOW_NOT_02.shp, WP10_07_AOW_NOT_02_catch.shp*
Author(s)	*Hugo, W*
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Abstract	** Technical Challenges -* *Proper utilisation of domestic organic waste requires development of biogas installations, based on digesters, or a large scale in many urbanised areas of the country. It may be useful to develop a standard unit (20,000 tons/annum) that can be replicated as required - there appears to be little economy of scale beyond the size of a large digester. The feedstock considered here includes currently unserviced households, as these come on stream expansion can be undertaken.* ** Cost Challenges -* *There may be as many as 100 viable projects, with significant capital investment required. Costs are comparable to new coal-based electricity.* ** Policy Challenges -* *The projects are feasible, require little or no subsidy, and can be implemented incrementally both at individual sites and across the country. Enabling policy, permitting, and regulation will be required to ensure safe handling of waste products, and IPP contributions to the grid allowed.*
Keywords	*biogas, digesters, domestic waste, feasibility, model outputs, organic waste, serviced waste*
Caveats	http://bea.dirisa.org/resources/metadata-sheets/WP10_07_META_AOW.pdf
Web Meta-Data	
Web Resource	http://app01.saeon.ac.za:8086/geoserver/BEA/wms?service=WMS&version=1.1.0&request=GetMap&layers=BEA:WP10_07_AOW_NOT_02&styles=&bbox=16.451920000028533,-34.83416989569374,32.892531746697685,-22.125030000001036&width=512&height=395&srs=EPSG:4326&format=application/ope

Methodology/ Protocol

Processing/ Provenance	*As described above*

Important Attributes

MESO_ID	Meso-zone ID
PRICOST	Optimal allocation of serviced domestic organic waste to biogas digesters, R/ton
ALLOC	Catchment ID

References and Sources

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[3]	Witi, J and Stevens, L- Greenhouse Gas Inventory for South Africa, 2000-2010, Department of Environmental Affairs, 2013 - https://www.environment.gov.za/sites/default/files/docs/greenhousegas_invetorysouthafrica.pdf
[4]	Nahman, A. and Godfrey, L. Economic value of South Africa's Waste (Preliminary), CSIR CSIR/NRE/GES/ER/ 2014/0015/A for DST, 2014, http://www.wasteroadmap.co.za/download/economic_value_sa_waste.pdf and http://www.wasteroadmap.co.za/download/trends_in_waste_management.pdf
[5]	US Environmental Protection Agency, Emission Factors for Greenhouse Gas Inventories, EPA, 2014 - http://www.epa.gov/climateleadership/documents/emission-factors.pdf
[6]	From Waste to Jobs: What 75% Recycling means for California, NRDC, 2014 - http://www.nrdc.org/recycling/files/green-jobs-ca-recycling-report.pdf

[7]	All Serviced Organic Waste - Biogas Digesters - Catchments: http://app01.saeon.ac.za:8085/geoserver/WP10/wms?service=WMS&version=1.1.0&request=GetMap&layers=WP10:WP10_07_AOW_NOT_02_catch&styles=&bbox=16.846860047164206,-34.70222345680514,32.892531746697685,-22.207180243785977&width=512&height=398&srs=EPSG:4326&format=application/openlayers