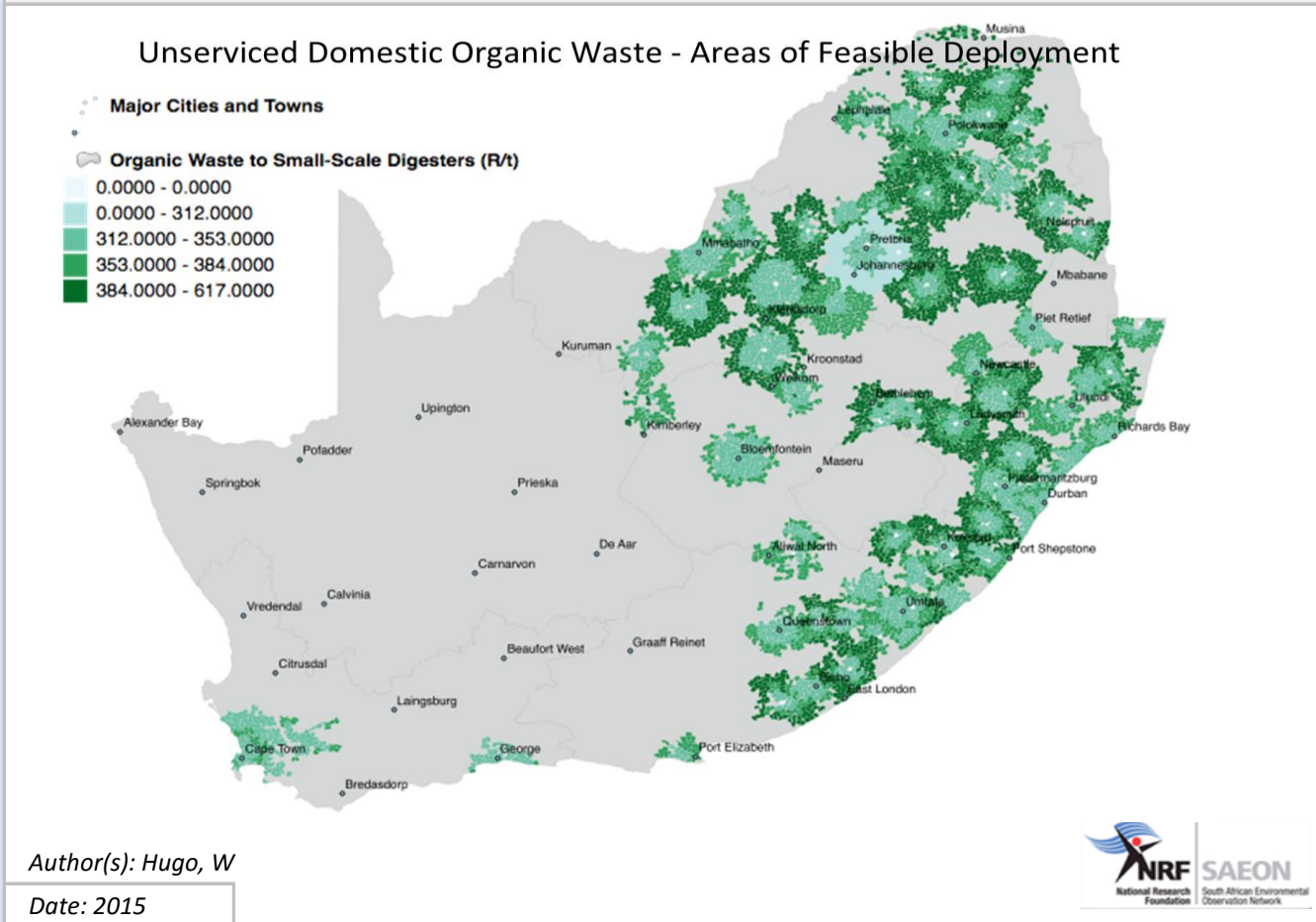


**Unserviced Domestic Organic Waste - Biogas Digesters****Meta-Data**

<b>Title</b>	Unserviced Domestic Organic Waste - Biogas Digesters
<b>File(s)</b>	WP10_07_RUR_NOT_02.shp, WP10_07_RUR_NOT_02_catch.shp
<b>Author(s)</b>	Hugo, W
<b>Publication Date</b>	2015
<b>Citation</b>	Hugo, W. 2014. Feasibility of BioEnergy production in South Africa, BioEnergy Atlas for South Africa, DST/SAEON 2014, Section WP10_04
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<b>Abstract</b>	<p><i>* Technical Challenges -</i>  <i>Proper utilisation of unserviced domestic organic waste requires deployment of household or community digesters, on a large scale in mostly rural areas of the country. It may be useful to develop a standard unit (1.5-5 tons/annum) that can be replicated as required - there appears to be little economy of scale beyond the size of a 10 t/a digester. The feedstock considered here focuses on currently unserviced households, and supply of biomass and operation can be improved by addition of cattle dung. Data is being prepared and awaited for estimates of cattle dung availability and its spatial distribution.</i></p> <p><i>* Cost Challenges -</i>  <i>There will be a large number of viable projects, with significant capital investment required. Costs are comparable to new coal-based electricity. Subsidy is in lieu of grid electricity.</i></p> <p><i>* Policy Challenges -</i>  <i>The projects are feasible, requiring little or no subsidy, but households are unlikely to be able to afford the capital investment required. Alignment with the housing subsidy scheme should be investigated.</i></p> <p><i>* Environmental Challenges -</i>  <i>The net positive impact on greenhouse gas emissions is large, since there are no negative land use change impacts, given the significant reduction in GHG as CO2 equivalents in comparison to coal.</i></p>
<b>Keywords</b>	<i>biogas, digesters, domestic, feasibility, model outputs, organic, rural, unserviced, waste</i>
<b>Caveats</b>	<a href="http://bea.dirisa.org/resources/metadata-sheets/WP10_07_META_RUR.pdf">http://bea.dirisa.org/resources/metadata-sheets/WP10_07_META_RUR.pdf</a>
<b>Web Meta-Data</b>	
<b>Web Resource</b>	<a href="http://app01.saeon.ac.za:8086/geoserver/BEA/wms?service=WMS&amp;version=1.1.0&amp;request=GetMap&amp;layers=BEA:WP10_07_RUR_NOT_02&amp;styles=&amp;bbox=16.451920000028533,-34.83416989569374,32.892531746697685,-22.125030000001036&amp;width=512&amp;height=395&amp;srs=EPSG:4326&amp;format=application/ope">http://app01.saeon.ac.za:8086/geoserver/BEA/wms?service=WMS&amp;version=1.1.0&amp;request=GetMap&amp;layers=BEA:WP10_07_RUR_NOT_02&amp;styles=&amp;bbox=16.451920000028533,-34.83416989569374,32.892531746697685,-22.125030000001036&amp;width=512&amp;height=395&amp;srs=EPSG:4326&amp;format=application/ope</a>

#### Methodology/ Protocol

Processing/ Provenance	<i>As described above</i>
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#### Important Attributes

MESO_ID	Meso-zone ID
PRICOST	Allocation of Unserviced Domestic Organic Waste to Biogas Digesters, R/ton
ALLOC	Catchment ID

#### References and Sources

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[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, <a href="http://www.wasteroadmap.co.za/download/economic_value_sa_waste.pdf">http://www.wasteroadmap.co.za/download/economic_value_sa_waste.pdf</a> and <a href="http://www.wasteroadmap.co.za/download/trends_in_waste_management.pdf">http://www.wasteroadmap.co.za/download/trends_in_waste_management.pdf</a>

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[7]	Unserviced Domestic Organic Waste - Biogas Digesters - Catchments: <a href="http://app01.saeon.ac.za:8085/geoserver/WP10/wms?service=WMS&amp;version=1.1.0&amp;request=GetMap&amp;layers=WP10:WP10_07_RUR_NOT_02_catch&amp;styles=&amp;bbox=18.145830027206735,-34.39130985789482,32.892531746697685,-22.502897526269876&amp;width=512&amp;height=412&amp;srs=EPSG:4326&amp;format=application/openlayers">http://app01.saeon.ac.za:8085/geoserver/WP10/wms?service=WMS&amp;version=1.1.0&amp;request=GetMap&amp;layers=WP10:WP10_07_RUR_NOT_02_catch&amp;styles=&amp;bbox=18.145830027206735,-34.39130985789482,32.892531746697685,-22.502897526269876&amp;width=512&amp;height=412&amp;srs=EPSG:4326&amp;format=application/openlayers</a>