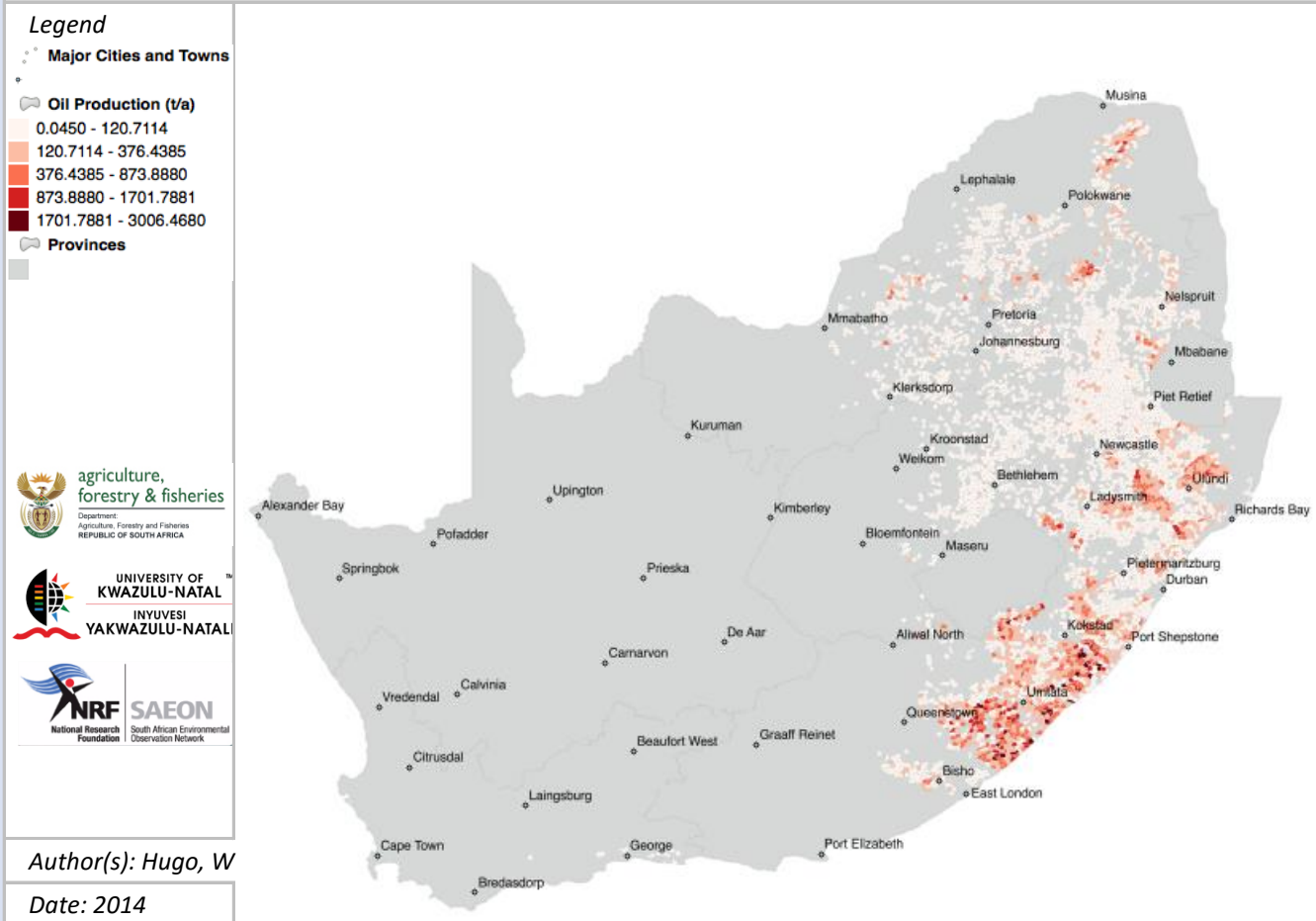


Production of Sunflower on Subsistence and Underutilised Farmland**Meta-Data**

Title	<i>Production of Sunflower on Subsistence and Underutilised Farmland</i>
File Name	<i>1_03_SUN.shp</i>
Author(s)	<i>Hugo, W</i>
Publication Date	<i>2014</i>
Citation	<i>Hugo, W, 2014. Production of Sunflower on Subsistence and Underutilised Farmland. In: Hugo W. (Ed). 2015. South African BioEnergy Atlas. DST, Pretoria, RSA, Section W03_00.</i>
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Abstract	<p>Data was derived from the following sources:</p> <ul style="list-style-type: none"> * Extent of underutilised and subsistence farmland, data obtained from Department of Agriculture, Forestry, and Fisheries. * On such land, sunflower potential was calculated from data published by Schulze and Maharaj (2007) on sunflower-growing potential. * Oil, Seed, Oilcake, and Residue production was calculated based on sugar yields, and aggregated to meso-zones for planning and feasibility analysis. * Oil, Seed, Oilcake and Residue ratios were derived from literature

Keywords	<i>biomass, potential, agriculture, seed, sunflower, oil, oilcake, residue</i>
Caveats	http://bea.dirisa.org/resources/metadata-sheets/WP03_00_META_SUN.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:1_03_SUN&styles=&bbox=16.451920000028533,-34.83416989569374,32.892531746697685,-22.125030000001036&width=512&height=395&srs=EPSG:4326&format=application/one

Methodology/ Protocol

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

MESO_ID	Meso-zone ID
INF_HA	Subsistence and Underutilised farmland in mesozone, ha
SUN	Biomass production in zone per annum, tons
OIL	Oil production in zone per annum, tons
CAKE	Oilcake residue production per zone per annum, tons
GRAIN	Grain or seed production in zone per annum, tons
LIGNO	Ligno-Cellulose (Residue) production in zone per annum, tons

References and Sources

[1]	Schulze, R.E. and Maharaj, M. 2007. Sunflower Seed Yield Estimation. In: Schulze, R.E. (Ed). 2007. South African Atlas of Climatology and Agrohydrology. Water Research Commission, Pretoria, RSA, WRC Report 1489/1/06, Section 16.5.
[2]	"Schulze, R.E. 2007. Primary Production. In: Schulze, R.E. (Ed). 2007. South African Atlas of Climatology and Agrohydrology. Water Research Commission, Pretoria, RSA, WRC Report 1489/1/06, Section 14.1."
[3]	Crop Boundaries for South Africa - Obtained from Department of Agriculture, Fisheries, and Forestry, 2014. Refer to http://app01.saeon.ac.za:8085/geoserver/WP03/wms?service=WMS&version=1.1.0&request=GetMap&layers=WP03:cropland_rsa&styles=&bbox=17.87917501867629,-34.72917318565405,32.84584168833629,-22.143699645996094&width=512&height=430&srs=EPSG:4326&format=application/openlayers
[4]	Hugo, W 2014. Crop Yield Ratios and Potential for Yield Improvement, South African BioEnergy Atlas, DST, Pretoria, South Africa, 2015. Section WP03_00_CROP_YIELD