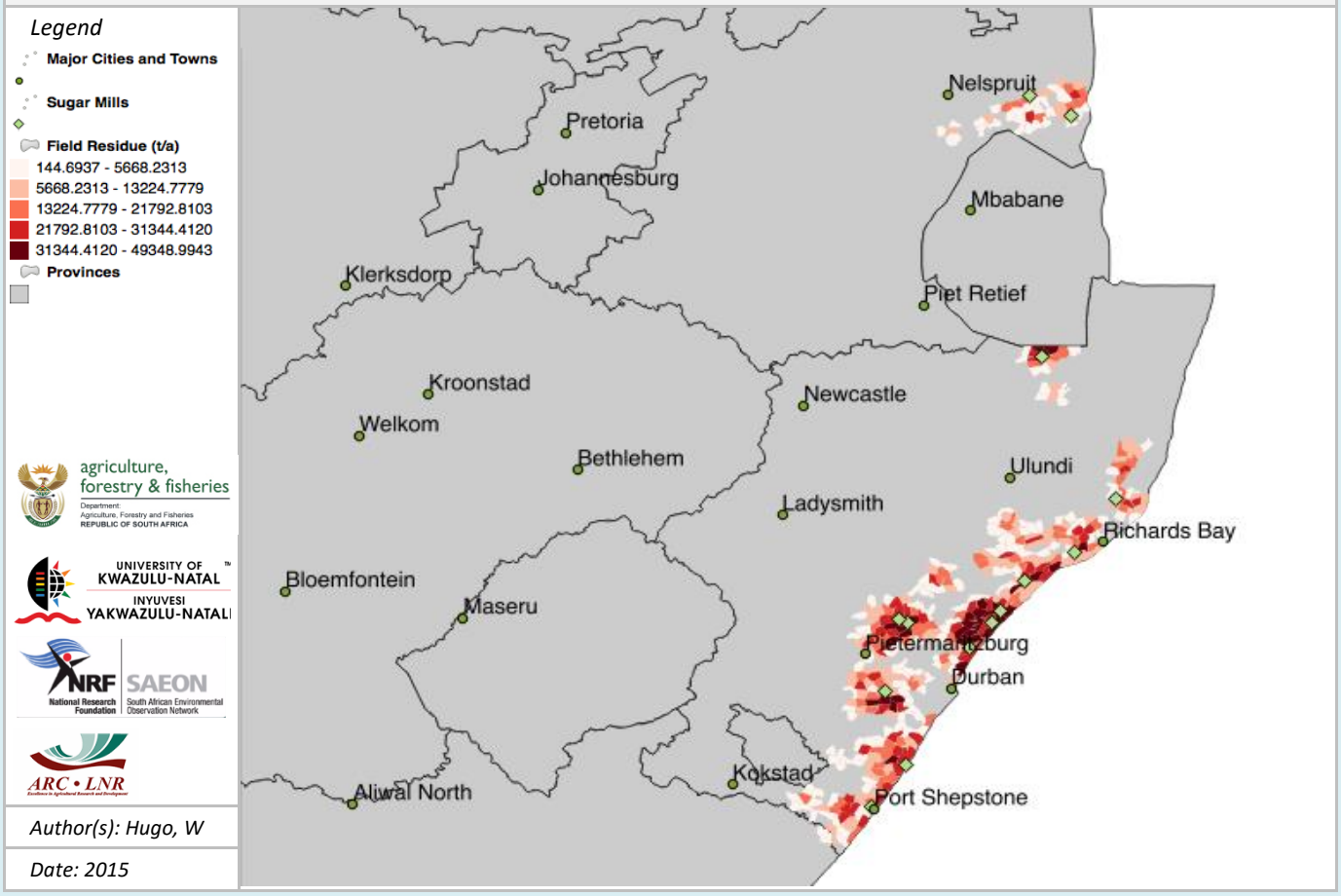
THEME: PURPOSELY CULTIVATED CROPS	Prepared by: Wim Hugo, SAEON

Availability of Sugar Cane Field Residues



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Date: 2015

Meta-Data

Title	*Availability of Sugar Cane Field Residues*
File Name	*MESO_SCN*
Author(s)	*Hugo, W*
Publication Date	*2015*
Citation	*Hugo, W, 2015. Sugar Cane Field Residues. In: Hugo W. (Ed). 2015. South African BioEnergy Atlas. DST, Pretoria, RSA, Section W03_07.*
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Abstract	*Data was derived from the following sources:* **The extent of sugar cane cultivation was determined from digitisation of maps published in Gers (2003).* ** This extent was correlated with two additional sources: crop extent published by DAFF (2014), which excludes sugar cane production and could be used as a verification of extent, and Land Use data (FAO, 2011), which could be used to verify the finer extent of cultivation.* ** Sugar cane theoretical yields were applied from Schulze, Hull, and Maharaj (2007).* ** The total area and sugar cane production obtained from the above was correlated with published production figures (DAFF, 2014) and good correlation obtained - calculated sugar cane production of 22.5 mt/a vs published production in 2013/14 of 21.3 mt/a.* ** Ratios of bagasse, sugar, and residue production was calculated from ratios in Hugo (2014) .*
Keywords	*biomass, potential, agriculture, sugar cane, bagasse, field residue, ligno-cellulose, fiber, residue, straw*
Caveats	http://bea.dirisa.org/resources/metadata-sheets/WP03_07_META_SCN.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:MESO_SCN&styles=&bbox=16.451920000028533,-34.83416989569374,32.892531746697685,-

Methodology/ Protocol

Processing/ Provenance	*As described above.*

Important Attributes

MESO_ID	Meso-zone ID
CANE	Sugar Cane Production per zone per annum, tons
SUGAR	Sugar production in zone per annum, tons
BAGASSE	Bagasse production in zone per annum, tons
RESIDUE	Ligno-Cellulose (Residue) production in zone per annum, tons

References and Sources

[1]	"Schulze, R.E., Hull, P.J. and Maharaj, M. 2007. Sugarcane 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 16.3."
[2]	DAFF, 2014. Abstract of Agricultural Statistics, DAFF, http://www.daff.gov.za/daffweb3/Portals/0/Statistical Information/Abstract 2014 - MS Excel.xlsx
[3]	Gers, C.J. (2004). Applications of Remote Sensing In Sugarcane Agriculture in Umfolozi, South Africa, Master's Thesis, UKZN.
[4]	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
[5]	Schoeman, F., Newby, T.S., Thompson, M.W. and Van den Berg, E.C.: South African National Land Cover Change Map, Report No GW/A/2010/47, prepared by ARC and GeoTerraImage for FAO, June 2010.
[6]	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