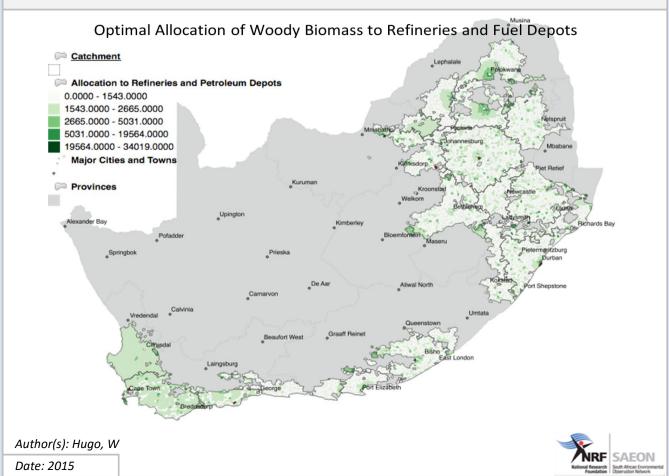
THEME: FEASIBILITY Prepared by: Wim Hugo, SAEON

All Woody Biomass - Chipping and Pelleting



Meta-Data

| Title | All Woody Biomass - Chipping and Pelleting |
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| Abstract | * Technical Challenges - |
|---------------|---|
| | The primary product from a wood pelleting or wood conversion technology needs to be |
| | incorporated into refinery feedstock, either as a coal or gas supplement in the case of synfuels |
| | refineries, or as a biocrude product in the case of crude oil refineries. In both instances such |
| | flexibility may not exist. |
| | * Cost Challenges - |
| | Costs are acceptable comparable to current coal costs. |
| | * Policy Challenges - |
| | The projects are feasible and well aligned with existing expertise and infrastructure in respect of |
| | 'Working for Water' programmes. Integration with DEA 'Working for Energy' required. |
| | * Environmental Challenges - |
| | The net impact on greenhouse gas emissions is sizable, despite land use change effects, given the |
| | significant reduction in GHG as CO2 equivalents in comparison to coal. If natural vegetation replaces |
| | invasives at more or less the same annual increment, LUC effects are near zero. |
| | |
| Keywords | chipping, feasibility, model outputs, pelleting, petroleum depots, refineries, woody biomass |
| Caveats | http://bea.dirisa.org/resources/metadata-sheets/WP10_07_META_AWR.pdf |
| Web Meta-Data | |
| Web Resource | http://app01.saeon.ac.za:8086/geoserver/BEA/wms?service=WMS&version=1.1.0&reque |
| | st=GetMap&layers=BEA:WP10_07_AWB_REF_02&styles=&bbox=16.451920000028533,- |
| | <u>34.83416989569374,32.892531746697685,-</u> |
| | 22.12503000001036&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 Woody Biomass to Refineries and Fuel Depots, R/ton |
| ALLOC | Catchment ID |

References and Sources

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|-----|---|
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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 |
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