



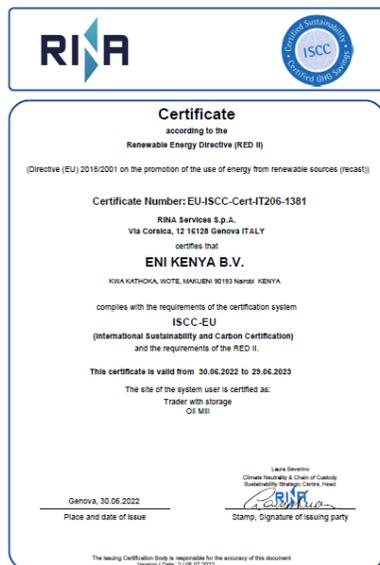
ONLINE WEBINAR - 7/12 at 10:30 AM

**Certification schemes
for energy crops and
good practices
from the field**



BIKE

ENI – Biofuels certification in Kenya



Castor and Croton



- Worlds first certificates for Castor and Croton value chains under ISCC EU

Cotton



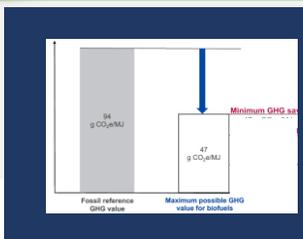
- First ISCC certificate for Cotton in Africa
- Cotton Lint also certified under ISCC PLUS

Food Waste



- Waste product from nuts processing
- New feedstock for ENI

GHG Saving



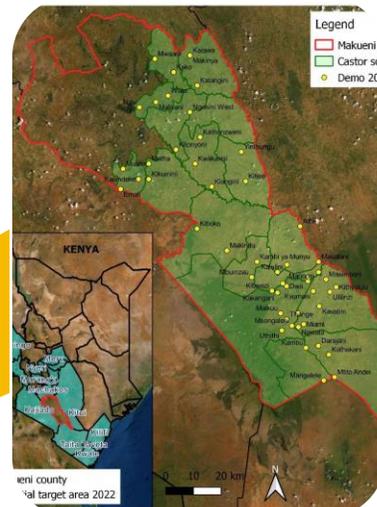
- >60% GHG minimum saving for each value chain
- Compatible with all Eni bio-refineries

Agri-feedstock project in Kenya

Context:
Kenya project



Location: multiple
Counties, starting
from Makeni



- Arid and semi-arid zone
- Annual rainfall between 800 and 500 mm
- Frequent droughts
- Government Priority areas

Crop: Castor



- Drought-resistant
- Additional source of income for farmers

Agrihub



- Aggregation and processing
- Provision of services and inputs

Testing Low ILUC-risk certification

ISCC Low ILUC-risk Pilot Audits



Why Low ILUC?

WHEN: June 2022

WHERE: Makueni and Baringo wards

OBJECTIVE: test Low ILUC risk audit procedures for cultivation of castor in Arid and Semiarid regions

WHAT: 3 scenarios of additionality



ADDITIONALITY: YIELD INCREASE

intercropping Castor with food crops



ADDITIONALITY: DEGRADED LAND

Castor monocropping



INTEGRATED CARBON FARMING MODEL

Castor crop with organic soil conditioner

-Castor planted on terraces (elevation curves):
no land for food cultivation
-wind and water erosion may also be reduced
improving SOC content

-Cultivation on arid land with low food
production potential
-Low soil organic content: <1%
-high to very high erosion risk

-Biochar: soil carbon accumulation
-improvement of soil fertility to increase yields

Key Findings and suggestions



**Yield
increase**

Points of Attention

- PROVING ADDITIONALITY OF BIOMASS PRODUCTION

Way forward

- Digital farm management and traceability tools
- Data from local authorities on crop yield slope



**Degraded
land**

- SOIL SAMPLING

- Remote sensing
- Data from local authorities
- Soil samples only as validation for remote sensing



**Biochar
application**

- SOIL SAMPLING
- CARBON ACCUMULATION

- Existing models (e.g. from literature)
- Remote sensing
- Soil samples limited for validation

ENI Approach to certification



Institutional sources and referenced databases

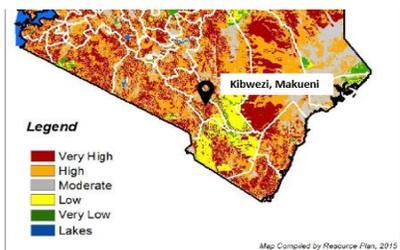


Figure 4.6 Severity of erosion risk in Kenya based on RS/GIS mapping

Kenyan ministry of Environment and Natural Resources
Specific counties classified as highly degraded area

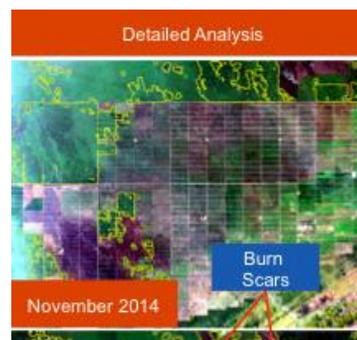
GLOBAL SOIL ORGANIC CARBON MAP (GSOC)



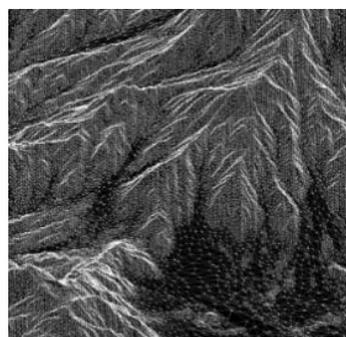
FAO – Global Soil Organic Carbon Map SOC levels estimated <1% by overlapping field shape file with GSOC MAP



Remote sensing



GRAS risk Management tool
Land Cover, Land Use change, carbon stock and biodiversity tool to assess RED II requirements



Multispectral cameras and drones
Soil organic Content and erosion levels can be accurately assessed remotely



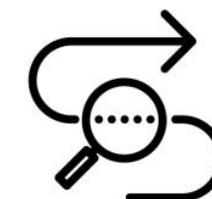
Digital Traceability



Reduced Paperwork and data loss



Automated reporting and forwarding of sustainability characteristics



Ensured traceability and chain of custody From origin to final user