

# MAURITIUS SUGAR INDUSTRY

BEST GREEN PRACTICES ENGAGEMENT IN THE SUGAR CANE FIELDS

# NATURALLY ENRICHED



**Maritime subtropical climate**



**Well-drained humid soils of volcanic origin**



**Vegetative and maturation phases coincide with our summer and winter**



**Sunshine all year round**



**Canes ripen naturally**



**Specialty sugars are rich in molasses and minerals**

# ENL Agri - Two distinct Regions



**Moka Region**

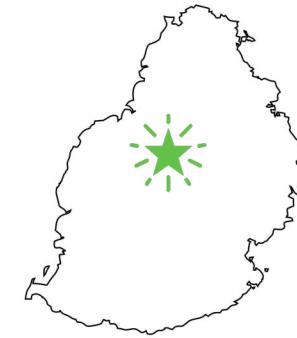
3,312 Hectares



**Savannah Region**

2,903 Hectares





# Moka Region



# Sugar Cane Activities

- Around 2,000 hectares of sugarcane harvested annually sent to Alteo Ltd Mill
- 100,000 T of cane harvested
  - 55% Mechanical harvest
  - 45% Manual harvest
- No cane burning done in mechanically harvested cane to keep trash blanket
  - Improve soil organic matter
  - Conserve humidity
  - Protection from run-off and rainsplash
- Fertilisation
  - Use inorganic fertilisers and some natural fertiliser/compost
  - Approx. 120 T of inorganic Nitrogen applied annually
- Weed management
  - Use of herbicides
  - Manual weeding also performed but very costly



# Natural Areas



## Forests

Mountainous forests  
Riparian zones



## Fresh water Wetlands

Reservoirs, swamps,  
marshes, streams & rivers



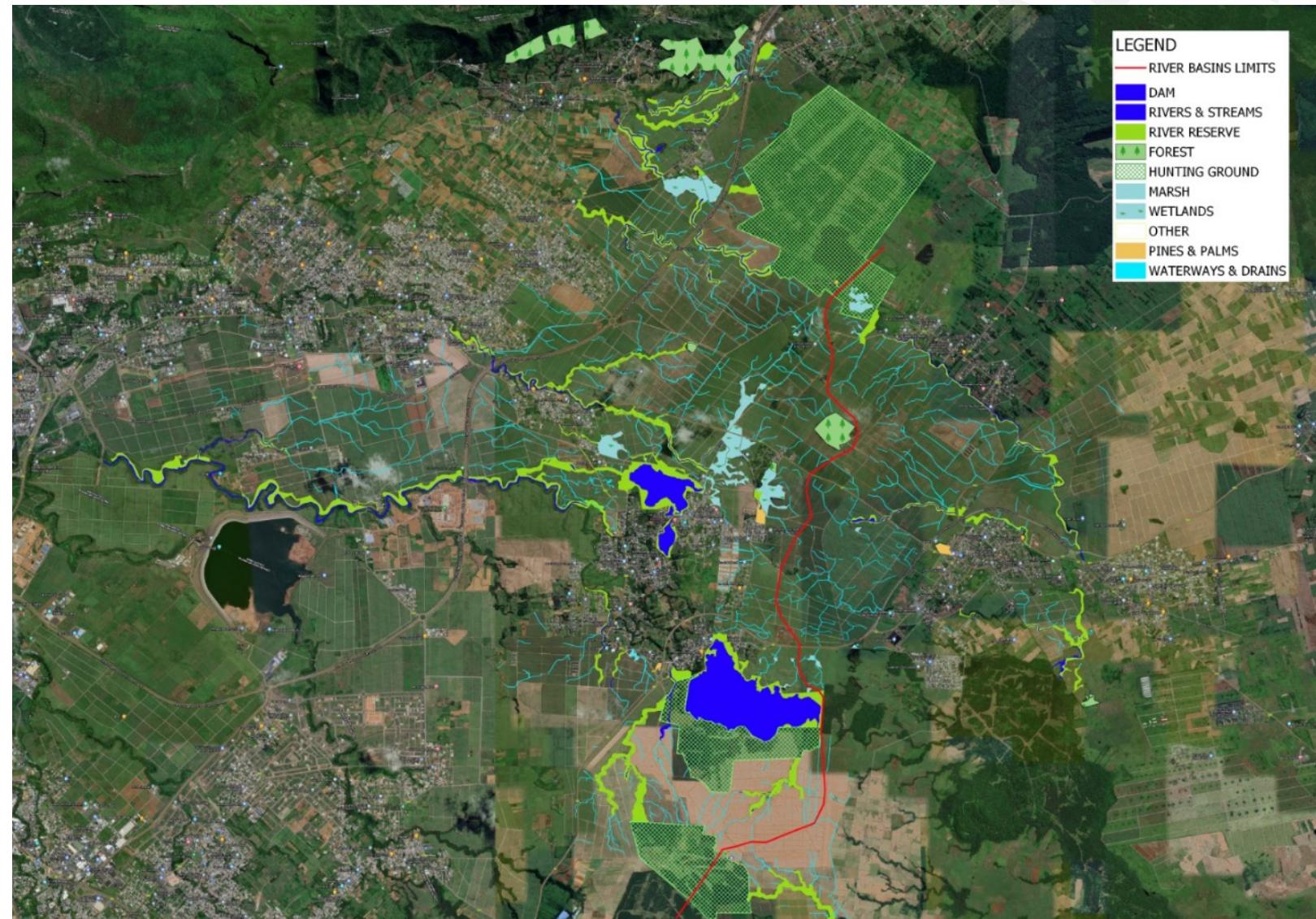
## Biodiversity hotspots

Rare endemic flora &  
fauna



# Moka – Hydrology

- Part of two major river basins
  - Grande Riviere Nord Ouest basin
    - Riviere Cascade & tributaries
    - Riviere Profonde & tributaries
    - Riviere Moka & tributaries
  - Grand Riviere Sud Est basin
    - Riviere Francoise & tributaries
- Two man made reservoirs used to store irrigation water
  - Dagotiere Reservoir
  - Valetta Reservoir
- Three freshwater wetlands
  - Alma Wetland
  - Beau Bois Wetland
  - Bar le Duc Wetland



# Natural Areas - Wetlands

- Alma Wetland & surrounding forest
  - Approx. 25 ha with potential to reforest poor yielding sugarcane fields
- Beau Bois Wetland & surrounding forest
  - Approx. 11 ha
- Smaller wetlands:
  - Bar le Duc – 4 ha
  - Verdun – 4 ha
- Wetlands are highly susceptible to illegal waste dumping in Mauritius
- Key buffer zones in high rainfall areas to reduce risks of flooding downstream



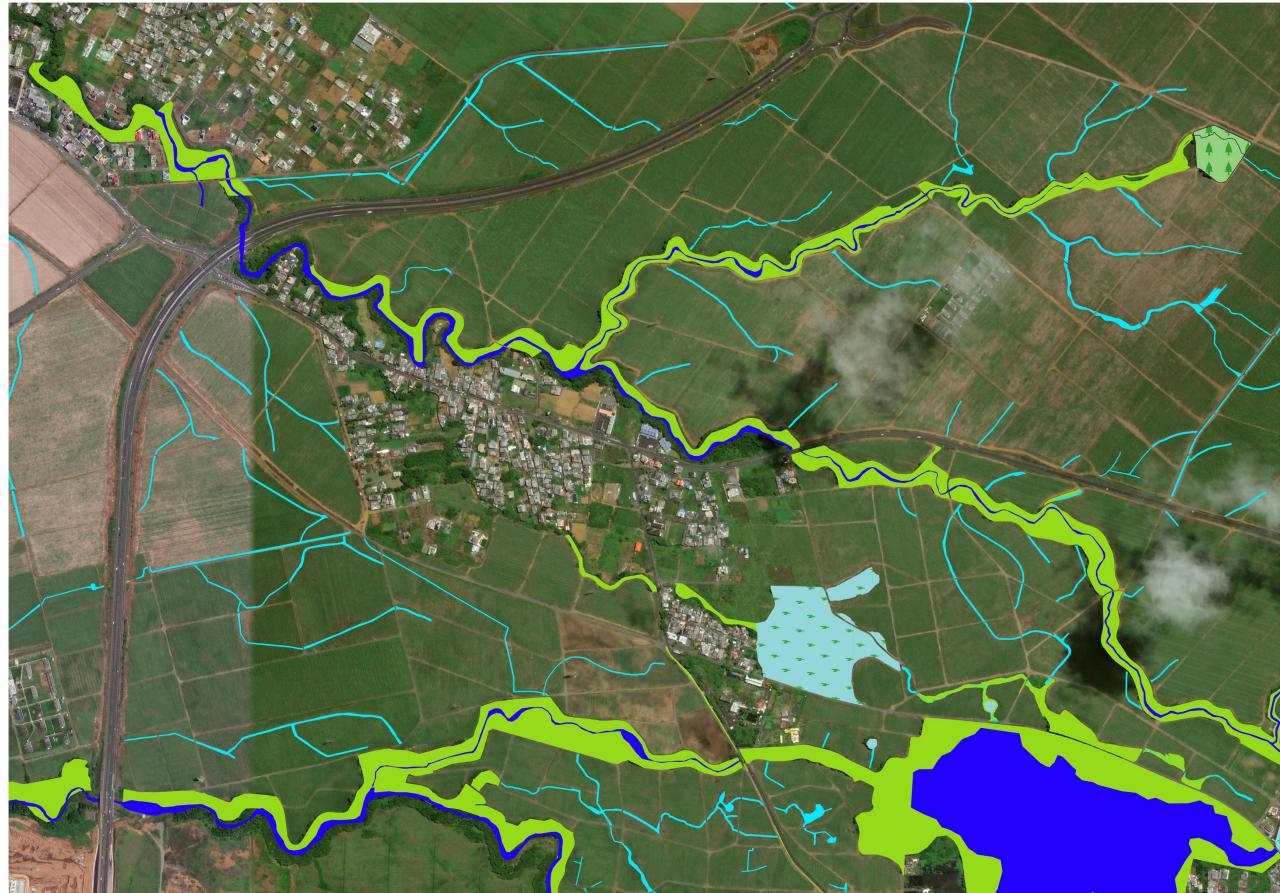
# Natural Areas - Forests

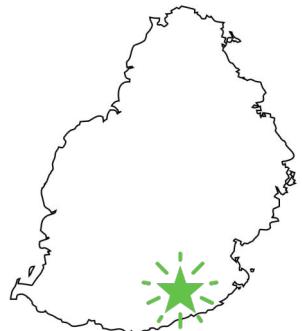
- ENL has approx. 54 hectares of land that can be classified as forests in the Moka Regions
  - Mountaineous forest on the Moka Range:
    - Les Mamelles – 26 ha
    - Peter Both – 15 ha
  - Other forest
    - Alma Hill pine forest – 10 ha
    - La Motte a Therese – 1 ha
    - Forests in hunting areas
- Key Conservation areas to consider
  - La Motte a Therese – high native/endemic biodiversity although quite degraded
  - Bar le Duc crater – rare endemic fern and orchid species and other native flora present although under high pressure from exotic species
- Potential for restoration of native forests and expansion through reforestation of neighbouring sugarcane fields
  - Les Mamelles



# Natural Areas - Rivers, Streams and River Reserves

- Approx. 48 km of Rivers and streams flowing through or adjacent to ENL land
- Approx. 175 km of waterways flowing through agricultural land and feeding rivers and streams
  - active during high rainfall events
- Approx. 160 ha of river reserves on ENL land
- Vulnerable riparian zones of high importance
  - Reduction of erosion along river banks
  - Protect rivers and streams from excess nutrients and sediment surface runoff – which would end up in the sea or sources of water for domestic purposes
  - Provides habitat for wildlife
  - Reduction of downstream flooding





# Savannah Region

Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Proin pharetra nonummy pede. Mauris et orci



# Sugar Cane Activities

- Around 2,100 hectares of sugarcane harvested annually sent to Omnicane Ltd Mill
- 140,000 T of cane harvested
  - 85% Mechanical harvest
  - 15% Manual harvest
- No cane burning done in mechanically harvested cane to keep trash blanket
- Some cool burning done in manually harvested cane if needed
- High instance of criminal fires
- 480 ha of irrigated sugarcane
- Fertilisation
  - Use inorganic fertilisers and some natural fertiliser/compost
  - Approx. 180 T of inorganic Nitrogen applied annually
- Weed management
  - Conventional use of herbicides
  - Manual weeding also performed but very costly

# Natural Areas



## Forests

Riparian Zones  
Coastal Zones



## Coastal Vegetation



## Fresh water Wetlands

Springs, swamps, streams  
and rivers



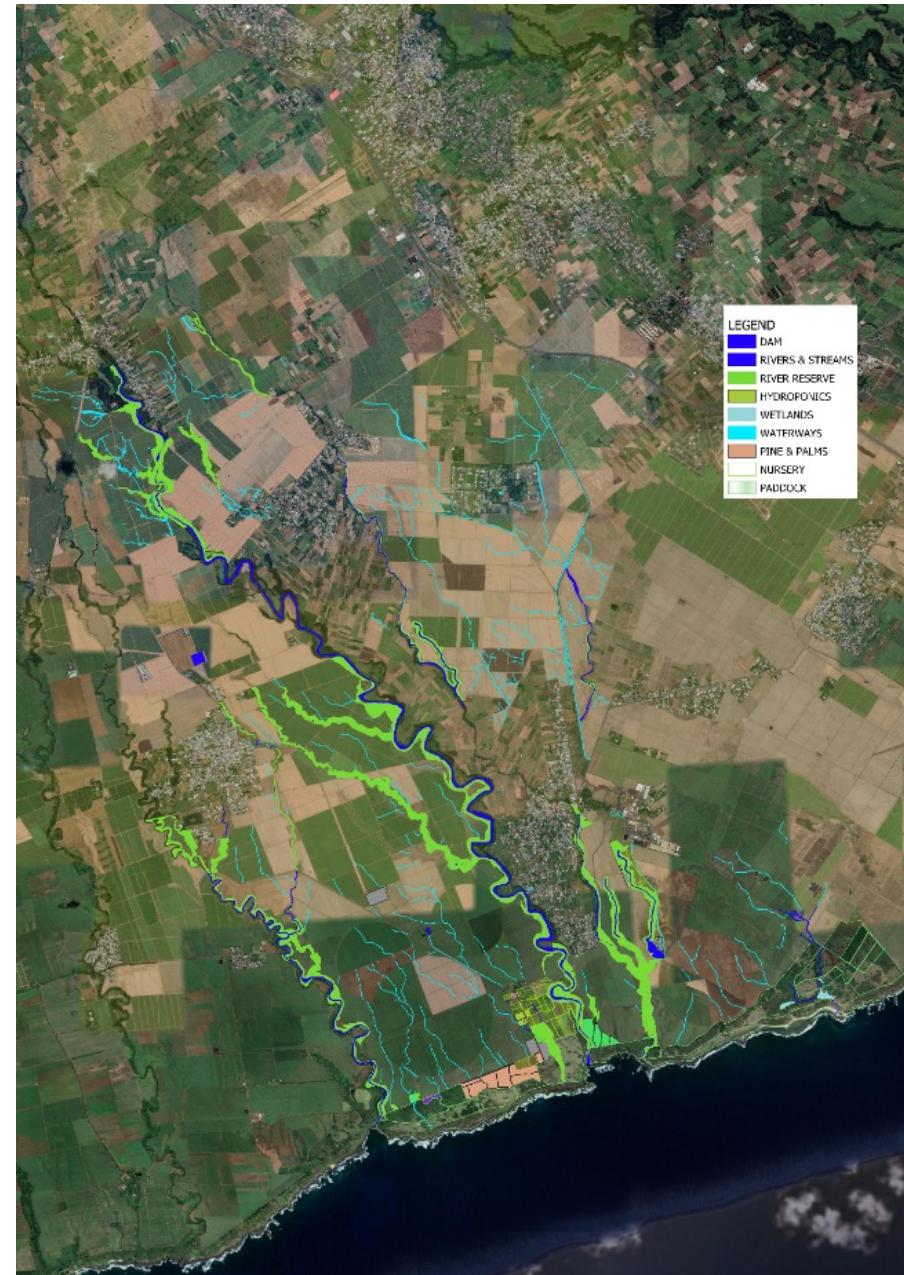
# Natural Areas - Forests

- No proper natural forests in the Savannah region
- 20 ha planted for Silviculture but never exploited
  - Mahogany Trees and other species
- 24 ha of degraded forest patches in grazing area
  - Mixed with edible palm plantation



# Savannah – Hydrology

- Part of three river basins
  - Riviere du Poste
  - Riviere Tabac
  - Riviere St. Amand
- Two small irrigation reservoirs
  - Bassin Tronche
  - Savinia Dam
- Springs rising from Savannah Land
  - Aldar Spring, feeding Savinia Dam
  - Savinia Springs
- Swamps
  - Small swamp network in coastal areas fed by Savinia Springs



# Savannah Natural Areas - Wetlands

- Aldar Spring feeding Irrigation Dam
- Savinia Springs Feeding swamps in pastoral area
  - Springs not protected from sediment and nutrient runoff from adjacent sugarcane fields



# Natural Areas - Rivers, Streams and River Reserves

- Approx. 57 km of Rivers and streams flowing through or adjacent to ENL land at Savannah
- Approx. 115 km of waterways flowing through agricultural land and feeding rivers and streams
  - active during high rainfall events
- Approx. 170 ha of river reserves on ENL land at Savannah
- Vulnerable riparian zones of high importance
  - Some riparian zones need to be re-establish to help mitigate flash flooding during high rainfall events
  - Reduction of erosion along river banks
  - Protect rivers and streams from excess nutrients and sediment surface runoff – which would end up in the sea or sources of water for domestic purposes
  - Provides habitat for wildlife
  - Reduction of downstream flooding



# Current Agricultural Context

- Increase in sugar prices, and remuneration of bagasse is giving ENL Agri and the sugar industry a breath of fresh air after several years of financial stress
- Investments in replantation and mechanisation being done to increase productivity and decrease costs.
- ENL Agri Ltd has recently become a member of Bon Sucro and is starting the journey towards certification in 2022.
- Investment in rehabilitation of endemic/native forests and other project
- Inclusive agriculture model in food crops production
- Waste management program to reduce waste sent to landfill
- Carbon footprint exercise starting in 2022