# Potential of African Agricultural Residues for Biorefinery: Key Findings of Biowaste4SP Project

By

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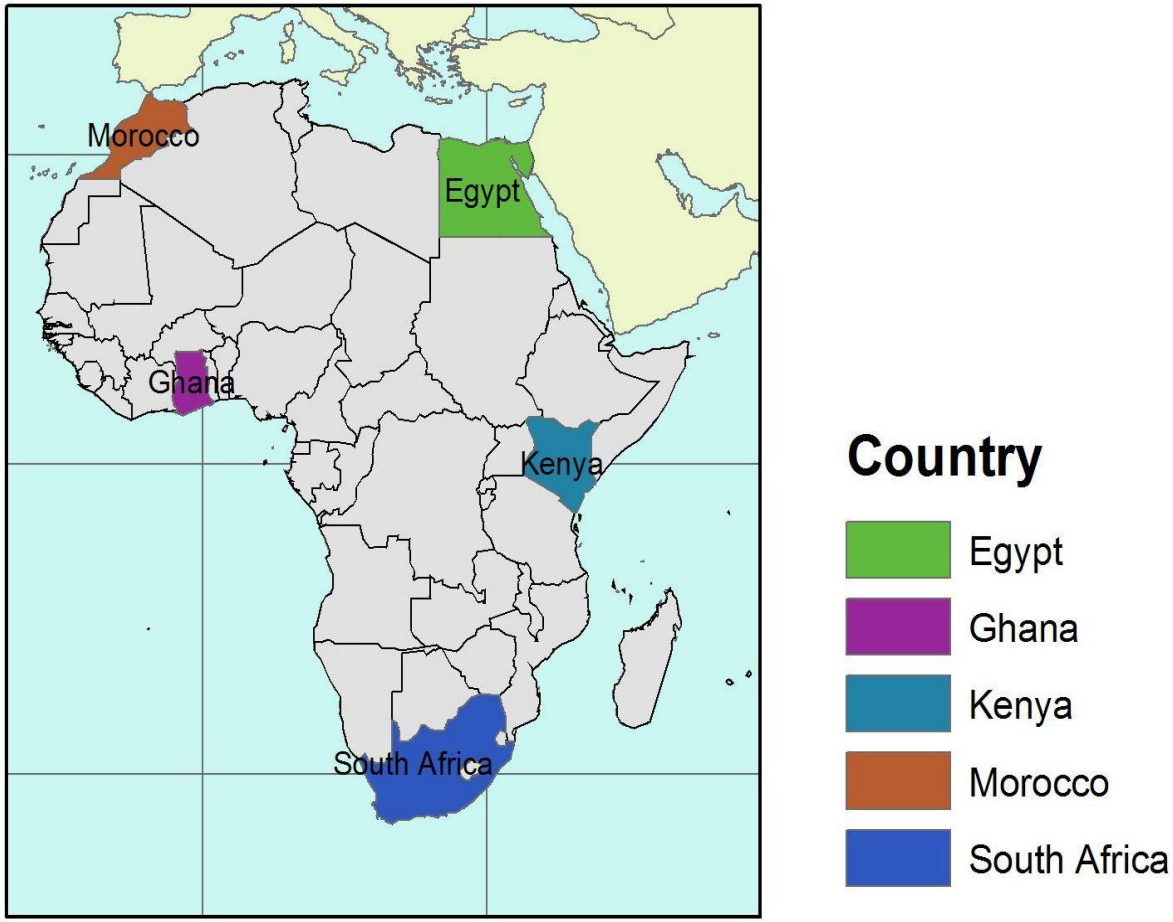
# Africa Partner Countries

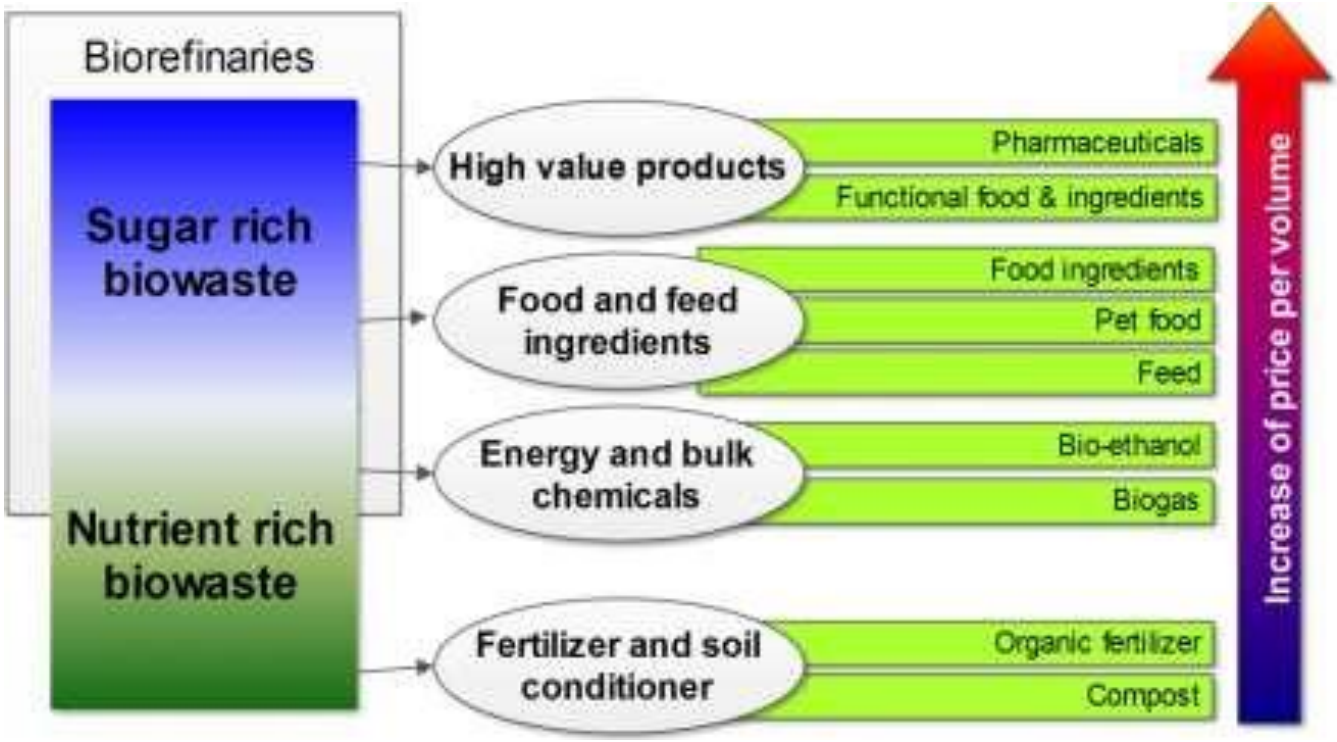



- **Africa is the second largest continent and one of the fastest growing market in the world.**
- **Africa covers about 5% of the earth's total surface area and 20% of the total land area.**
- **Africa accounts for nearly 15% of world's human population.**

# Key Objective of Biowaste4SP

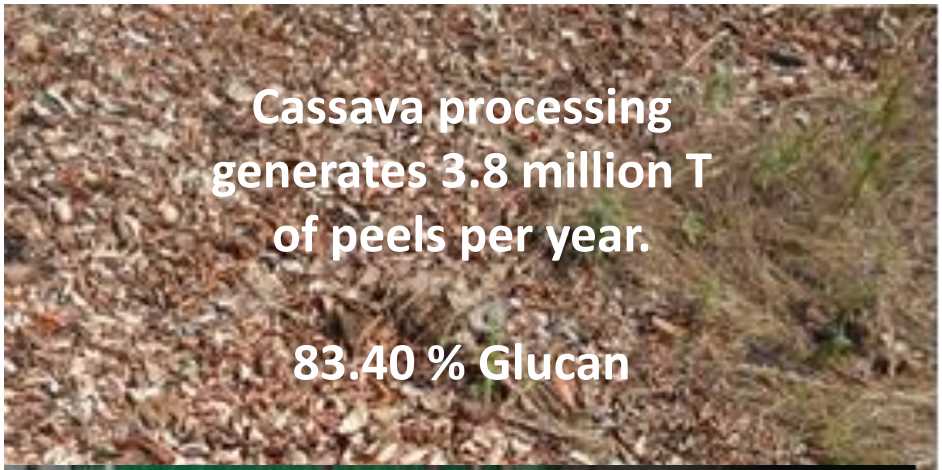
- ***To show and demonstrate the technical roadmap - a strategy - for efficient technological utilisation of selected significant biowaste in five African countries - Morocco, Egypt, Ghana, South Africa, and Kenya- derived from both the industrial and agricultural sector, thus, turning biowaste into a new resource for sustainable products.***

# Framework of nutrient and sugar rich feedstock and examples of their respective products



# GHANA

## Sugar rich crop residues



## Nutrient rich crop residues

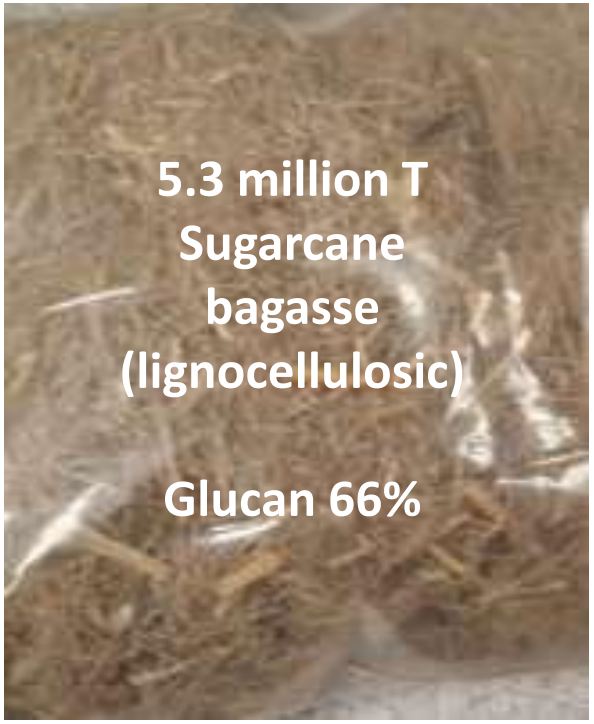
# KENYA

## Sugar rich crop residues

## Nutrient rich crop residues

# SOUTH AFRICA

## Sugar rich crop residues

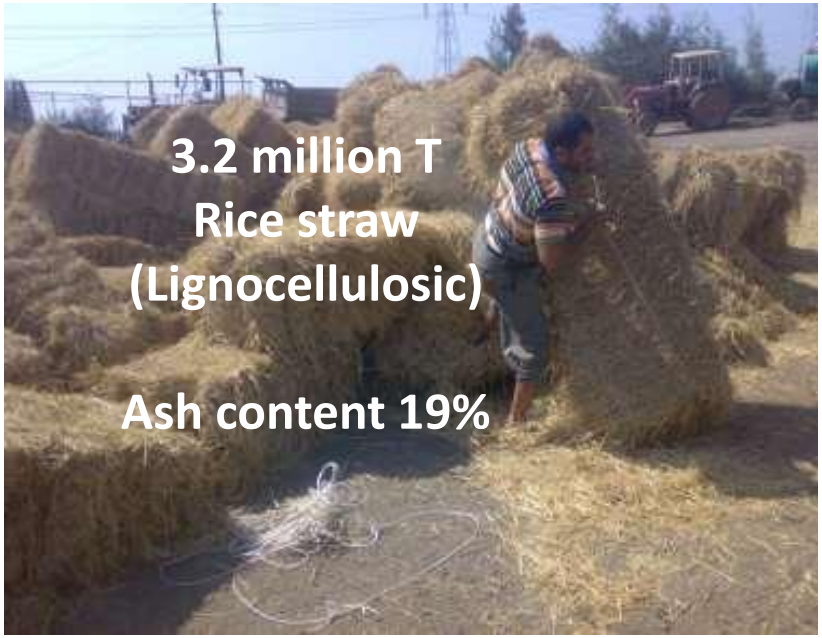



## Nutrient rich crop residues

# EGYPT

## Sugar rich crop residues

## Nutrient rich crop residues

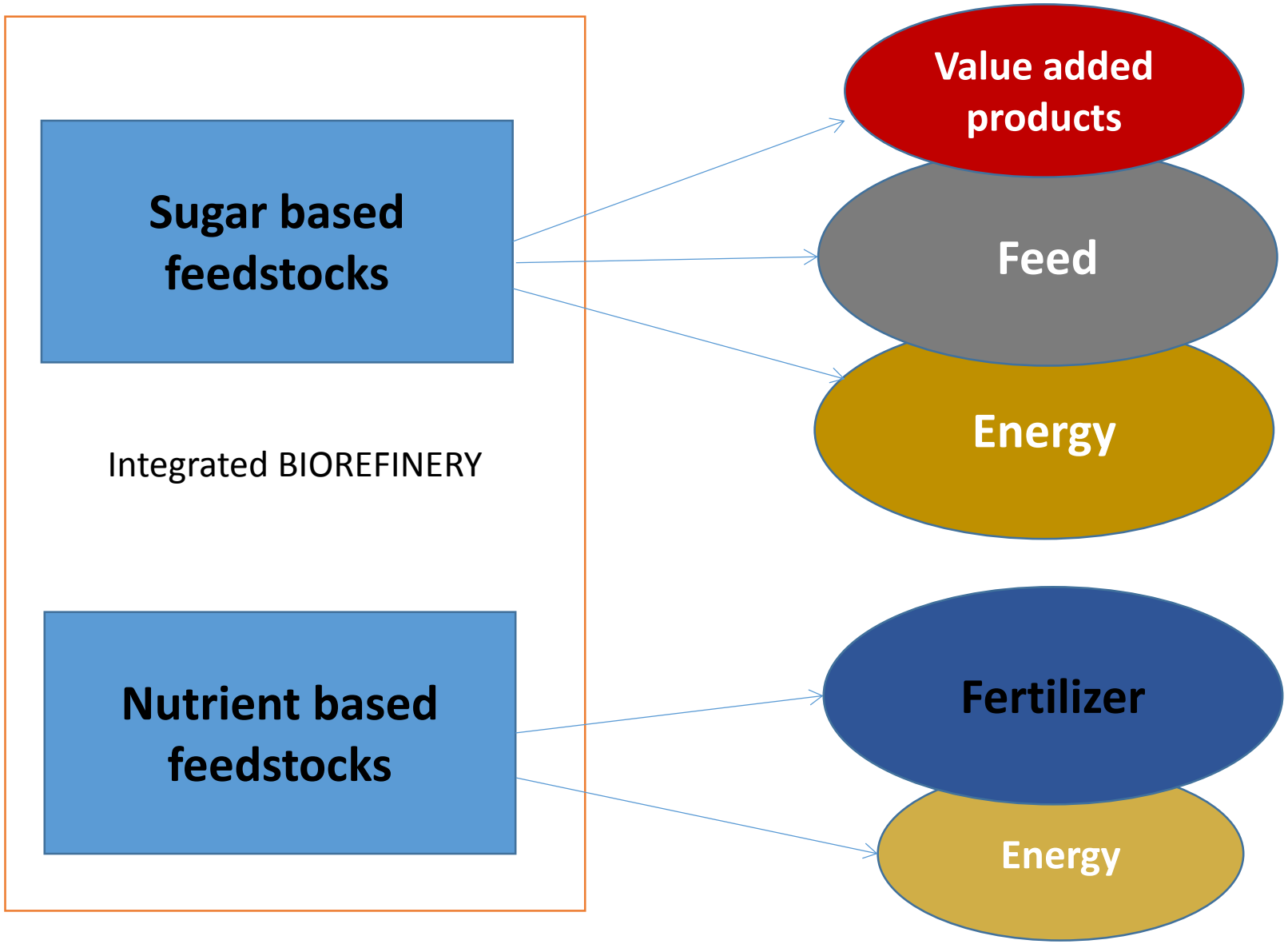


# MOROCCO

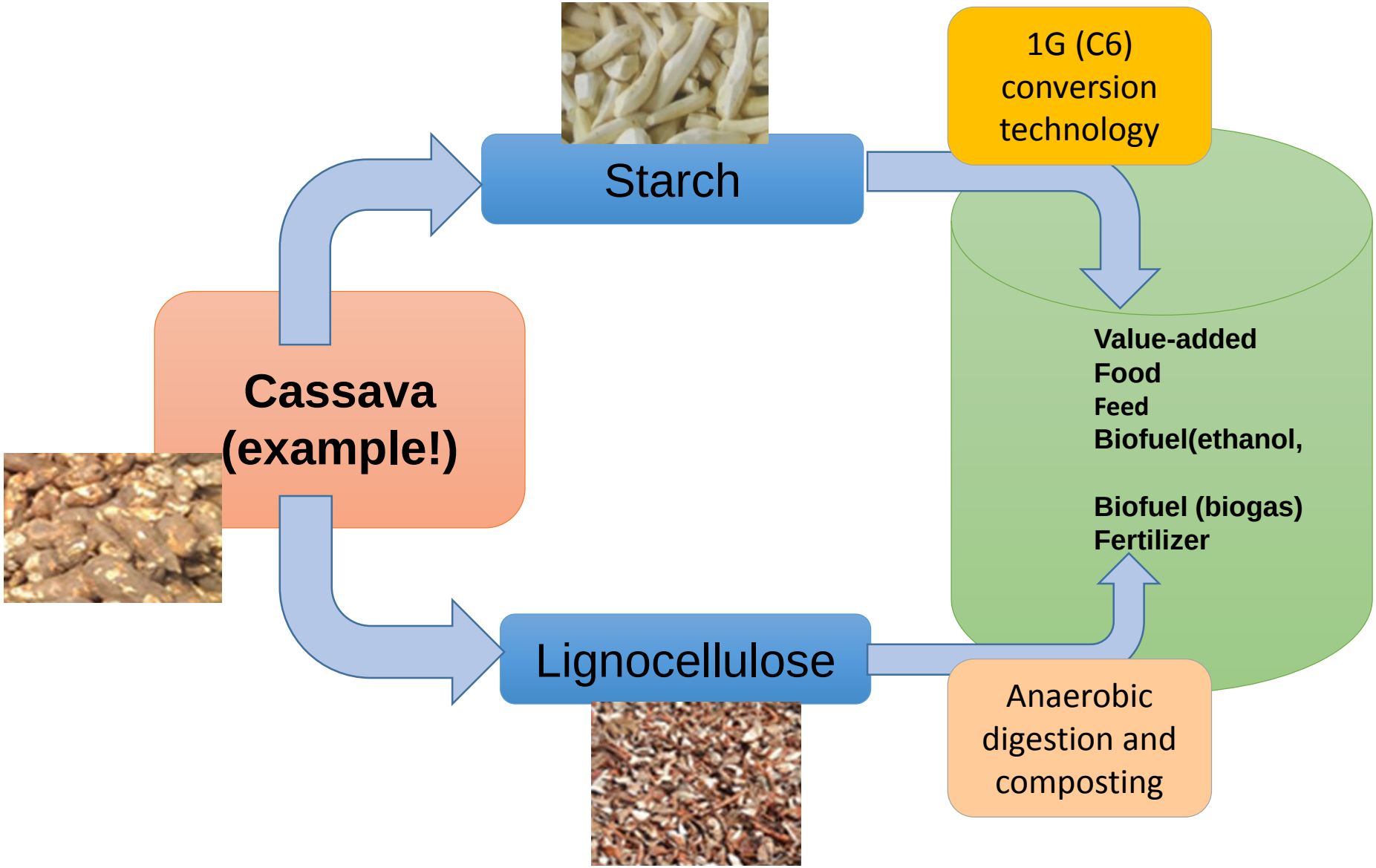
## Sugar rich crop residues

## Nutrient rich crop residues

## Agricultural crop residues utilization through biorefinery



# Development of ”whole crop” biorefinery



# Conclusions

- Sugar based crop residues are potential feedstocks for bioethanol, animal feed, amino acids especially lactic acid and lysine.

- Nutrient based crop residues are potential feedstock for fertilizer and biogas.

- High glucan feedstocks are more suitable for hydrolysis and fermentation for ethanol and amino acid production

- Whiles feedstocks with high ash contents can be composed for fertilizer production.

# Acknowledgement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THANKS