



BEFS

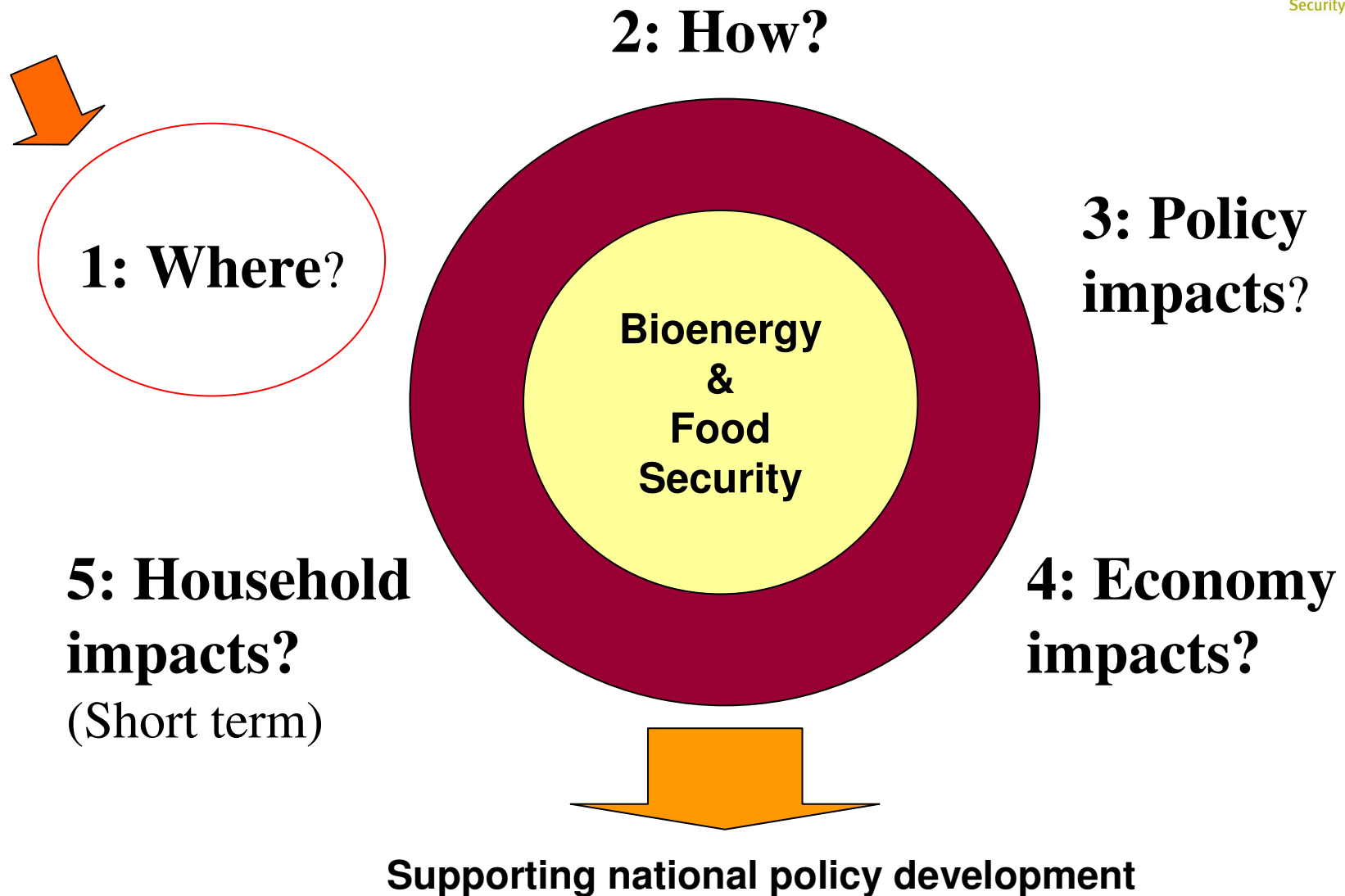
Bioenergy and Food
Security Project

BEFS Module 1 – Assessing the Biophysical Potential for Bioenergy Crops in Tanzania

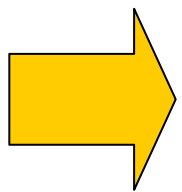
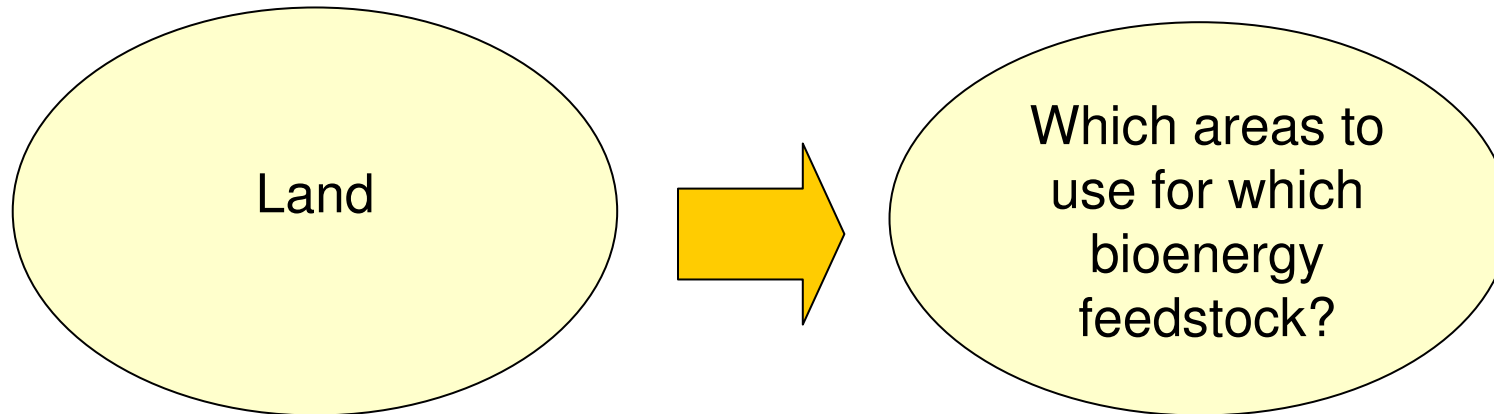
Rommert Schram
Bioenergy and Food Security Project

BEFS Training Workshop
Dar es Salaam, January 2010

BEFS Analytical Framework



Module 1: The Intuition

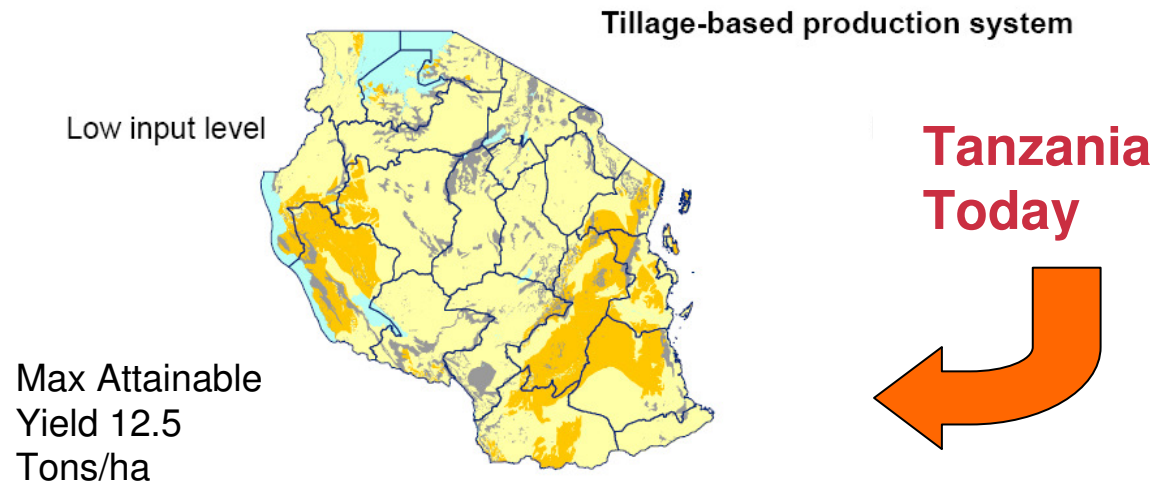


- Which area is most suitable?
- What agriculture management system?
- What yields can be achieved?
- Zoning?

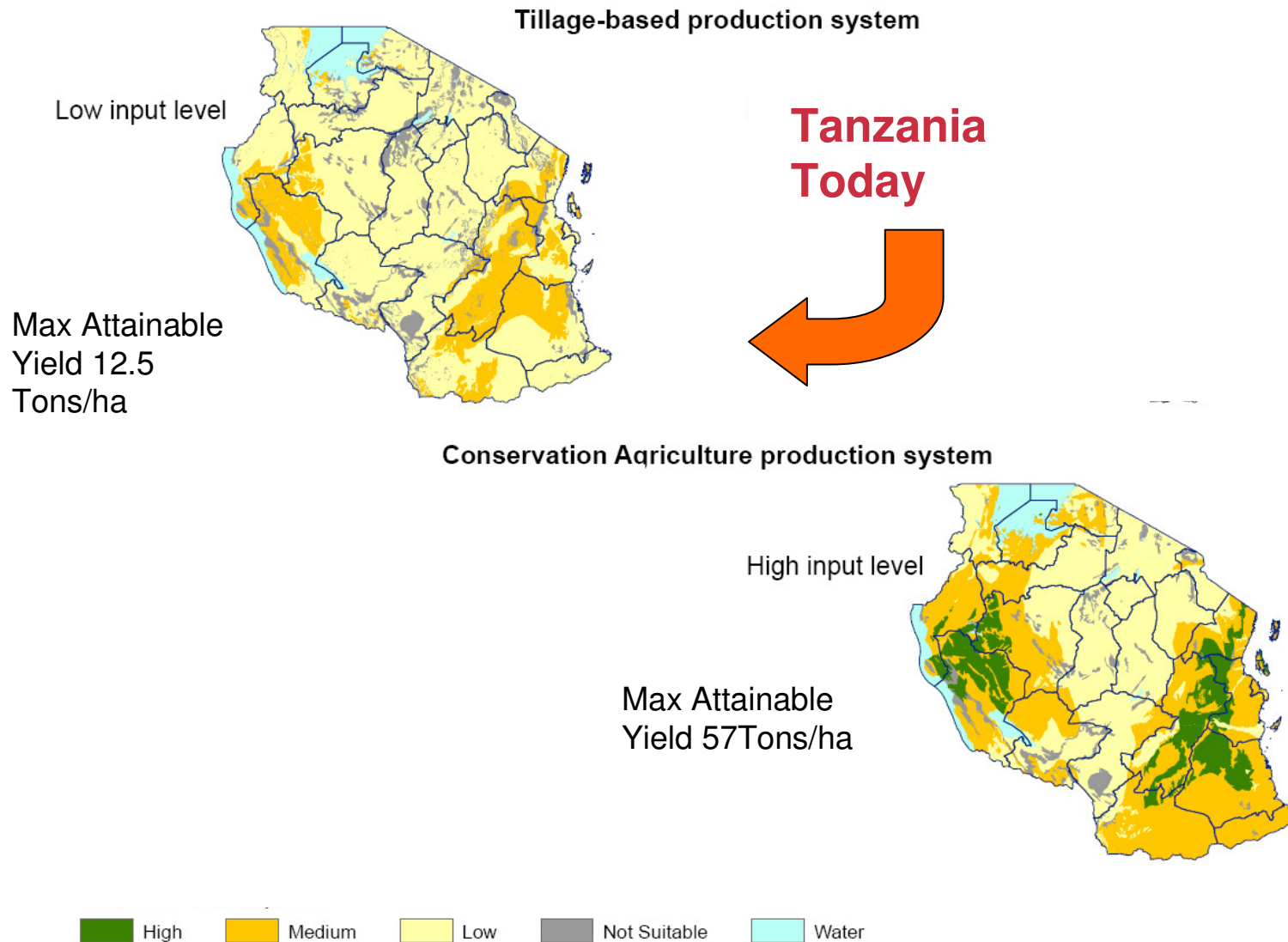
Suitability Mapping (Agroecological Zoning) Details

- Based on soil and climatic characteristics and crop requirements under **rain fed conditions**
- Cassava, Sugar Cane, Sweet Sorghum, Palm Oil and Sunflower
- Two **production systems**:
Tillage-based and Conservation Agriculture
- Two **level of inputs**:
Low and High

An Example: Cassava



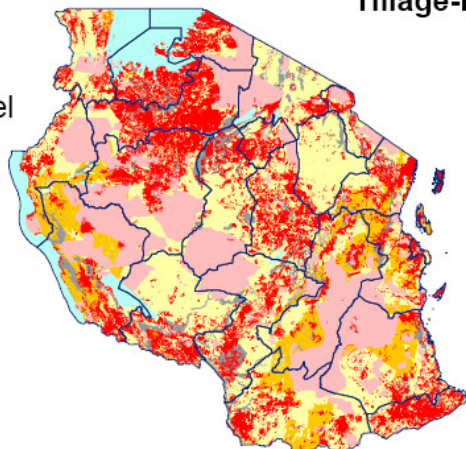
Cassava: The impact of the management system



Cassava: Excluding protected and food areas

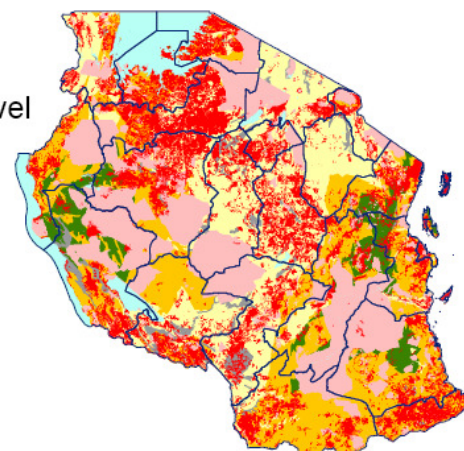
Tillage-based production system

Low input level

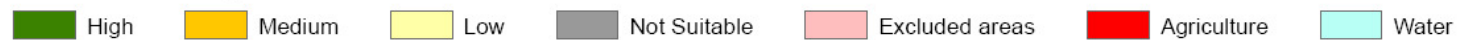


Conservation Agriculture production system

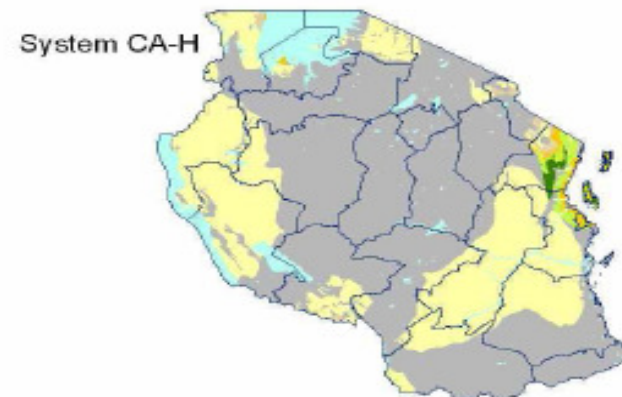
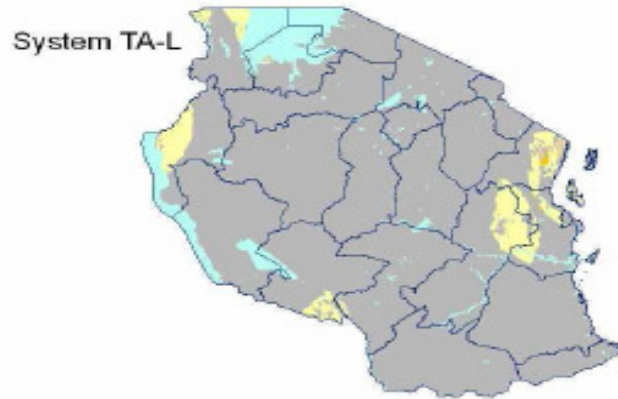
High input level



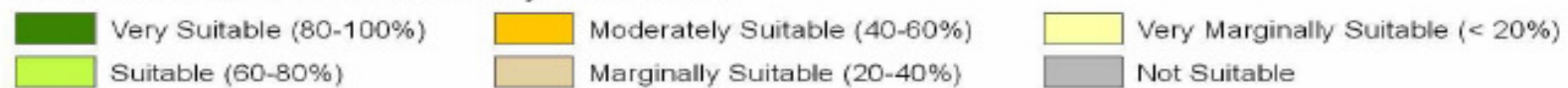
CASSAVA - Suitability Index



Oil Palm



OIL PALM COMPACT - Land Suitability Index classes



Module 1- Analysis so far...

- There is potential to increase cassava and sunflower production under rain fed conditions
- Sugar cane and palm oil: limiting factor is irrigation

Module 1- Overcomming constraints: Directions for policy

Investments needed for:

- Infrastructure – roads, irrigation
- Creating incentives for improved agricultural productivity through credit and finance provisions
- Education – Limited knowledge of sustainable agriculture production systems
- Developing new markets
- Agricultural R&D



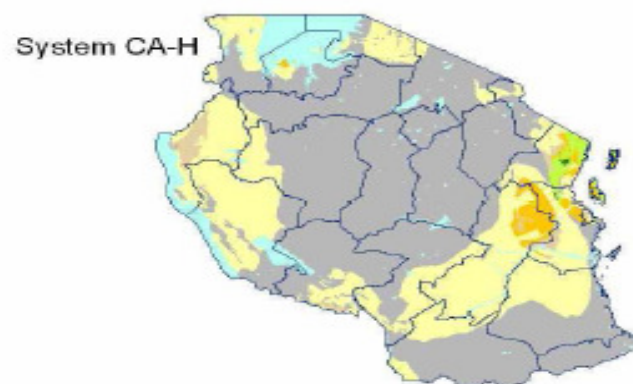
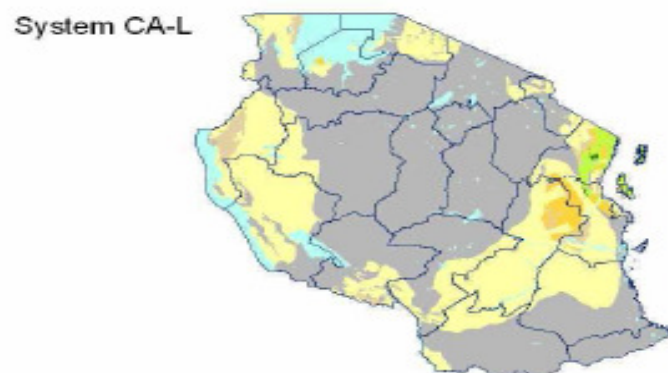
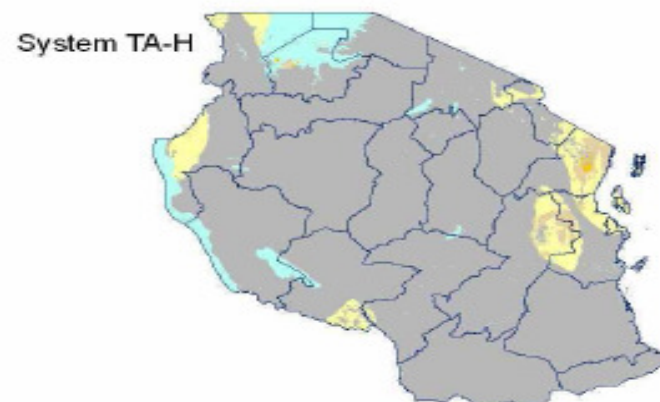
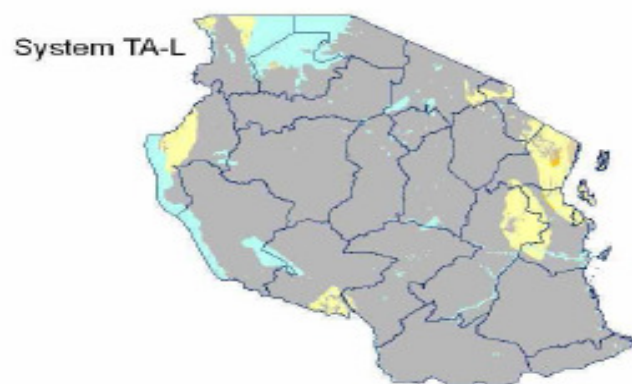
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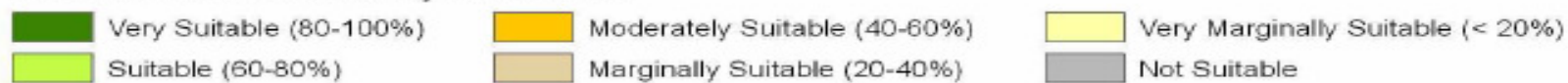
THANK YOU!

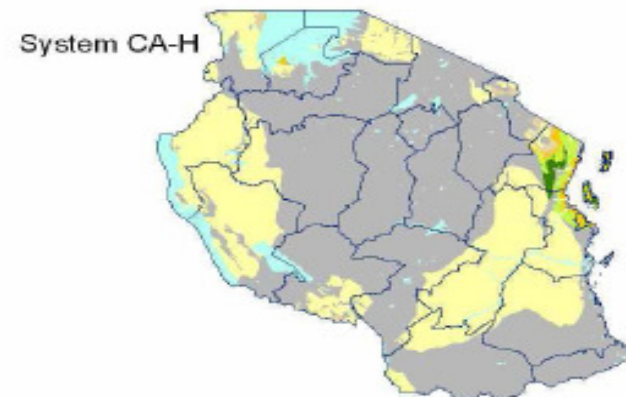
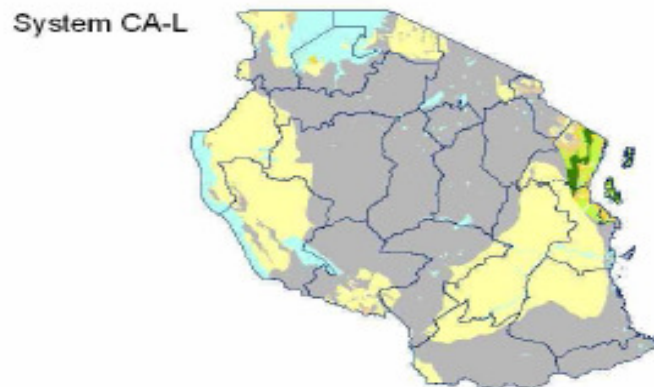
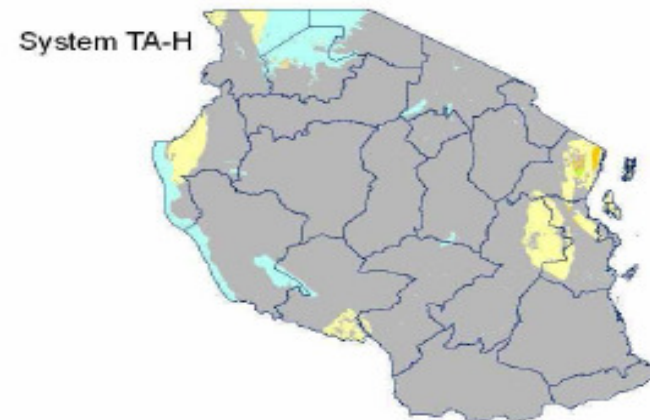
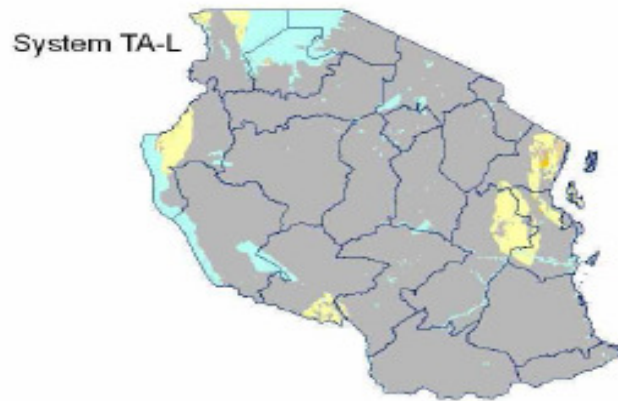
www.fao.org/bioenergy/foodsecurity/befs

Rommert Schram, BEFS FAO

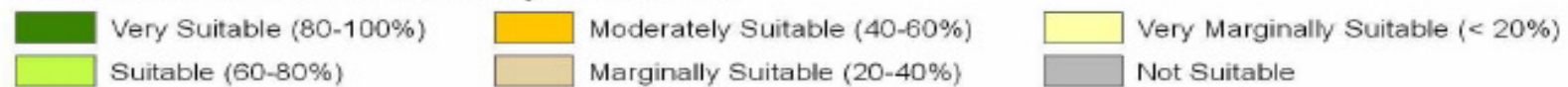


SUGARCANE - Land Suitability Index classes

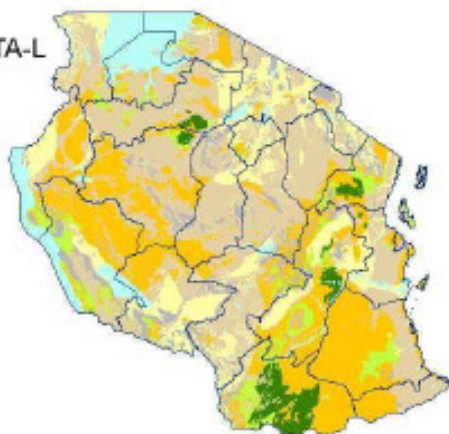




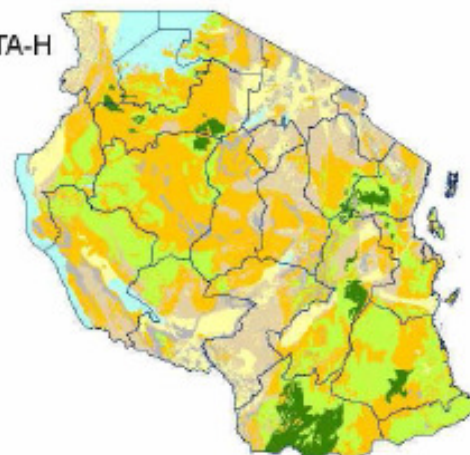
OIL PALM COMPACT - Land Suitability Index classes



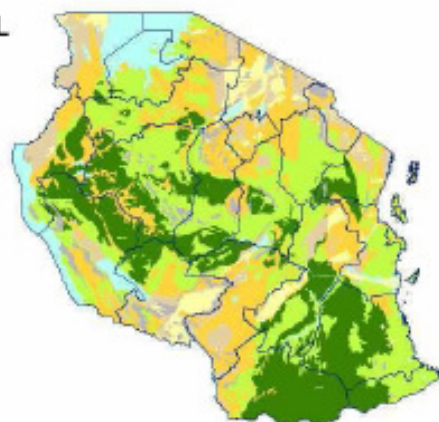
System TA-L



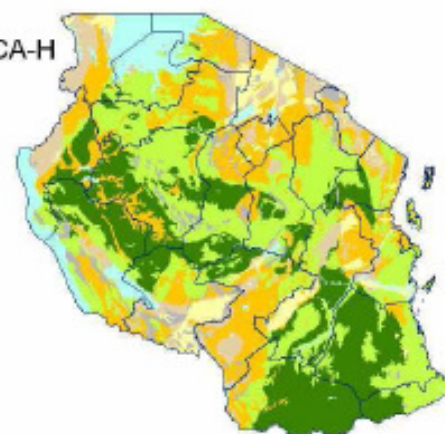
System TA-H



System CA-L



System CA-H



SUNFLOWER - Land Suitability Index classes

