Is it possible for each farmer to produce sufficient fodder to keep cattle?

→ Situation: Farmers have variable access to resources
1. Currently, **impossible for the poorest farmers** to keep cattle
2. After changes **some** may be able to keep **local cattle**
3. Changing from **B. taurus to B. indicus** would increase program viability
4. A more viable option could be the **distribution of goats**
Entry point: Niches for multi-purpose legumes

Banana – bush bean intercropping

Banana – climbing bean intercropping

Innovative maize-soybean intercropping

Calliandra hedgerows for fodder and erosion control

Innovative cassava-bean intercropping
A. Multiple systems interventions are introduced into the system and have complex interactions (e.g., competition)

B. Most promising interventions stabilize into a dominant innovation design

C. Dominant innovation design mainstreams and makes adjustments in the regime

D. New regime influences landscape

Landscape developments influence regime and create opportunities for change
Programmatic Framework

Provide opportunities for improved livelihoods in a sustainable environment for smallholders in the humid tropics

IDO: Systems innovation → SLO 1, 2, 3, 4 (9 years)

- Multiple socio-technical experiments ongoing in X number of platforms
- Coalitions for change growing and extending into other spheres of action
- Shifting discourses in policy networks
- Constraining conditions for technology uptake lifted
- New methods, processes and strategies tested, developed and institutionalized in innovation systems
- Innovation networks and activities continuing autonomously
Focus on action areas and Emerging partners

Production system platforms

- **The Sahelian Drylands**
  - Area: 1.2 million km²
  - Population: 38 million
  - Millet & sorghum belt: 23 million ha

- **Humid Forest Zone**
  - Area: 5.8 million km²
  - Population: 168 million
  - Cassava belt: 18 million ha
  - NER/CA potential: 2 million ha

- **Tropical-Altitude Savannas**
  - Area: 0.2 million km²
  - Population: 30 million
  - Banana-based systems: 2 million ha

- **Moist Savanna and Woodland Zones**
  - Area: 4.4 million km²
  - Population: 157 million
  - Maize belt: 32 million ha
  - CA potential: 7 million ha

Collaborative platforms

- USAID/ Feed the future
- IFAD investments
- AGRA & BMGF & ACIAR
- ASARECA/CORAF/ SADC-FANR
- FARA learning sites
ISFM and Conservation Agriculture
The common quest for biomass...
Economic impact of drought on maize production in WCA (Cont’d)

- Drought stress coinciding with flowering and grain filling periods can reduce grain yield by 50% and 21%
- Maize yield can be reduced by 90% if drought occurs from a few days before tassel emergence to the beginning of grain filling period
Gender Research

Improve the quality of women participation in the process and reduce gender inequity

- strategic gender research
- gender mainstreaming
- building gender-based partnerships across the centers, programs and projects
- gender survey
In Action Areas

Increase staple food yields (60%)
Increase average farm income (50%)
Poor households lifted above poverty line (25%)
Reduce number of malnourished children (30%)
Reverse nutrient depletion on 40% of farms