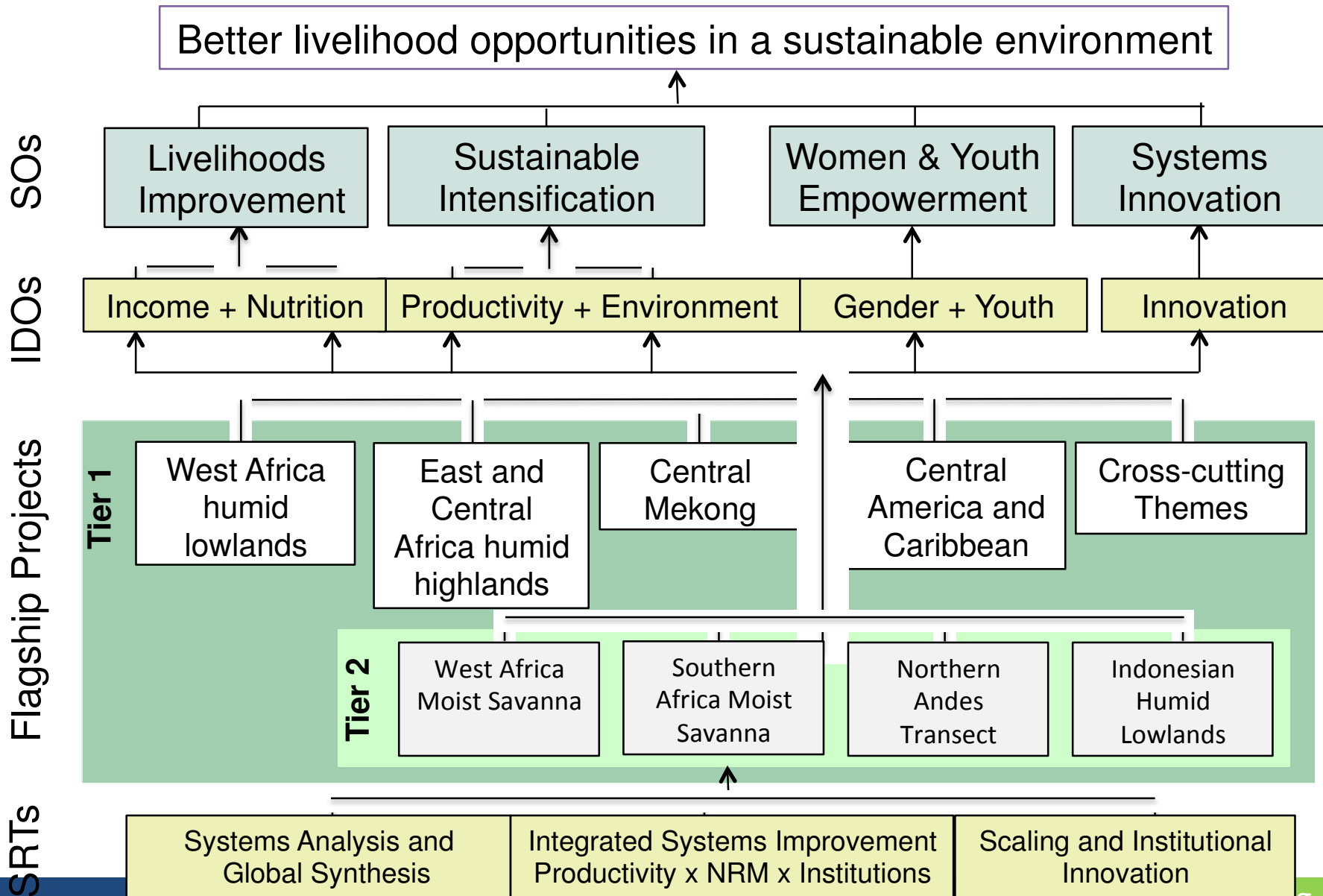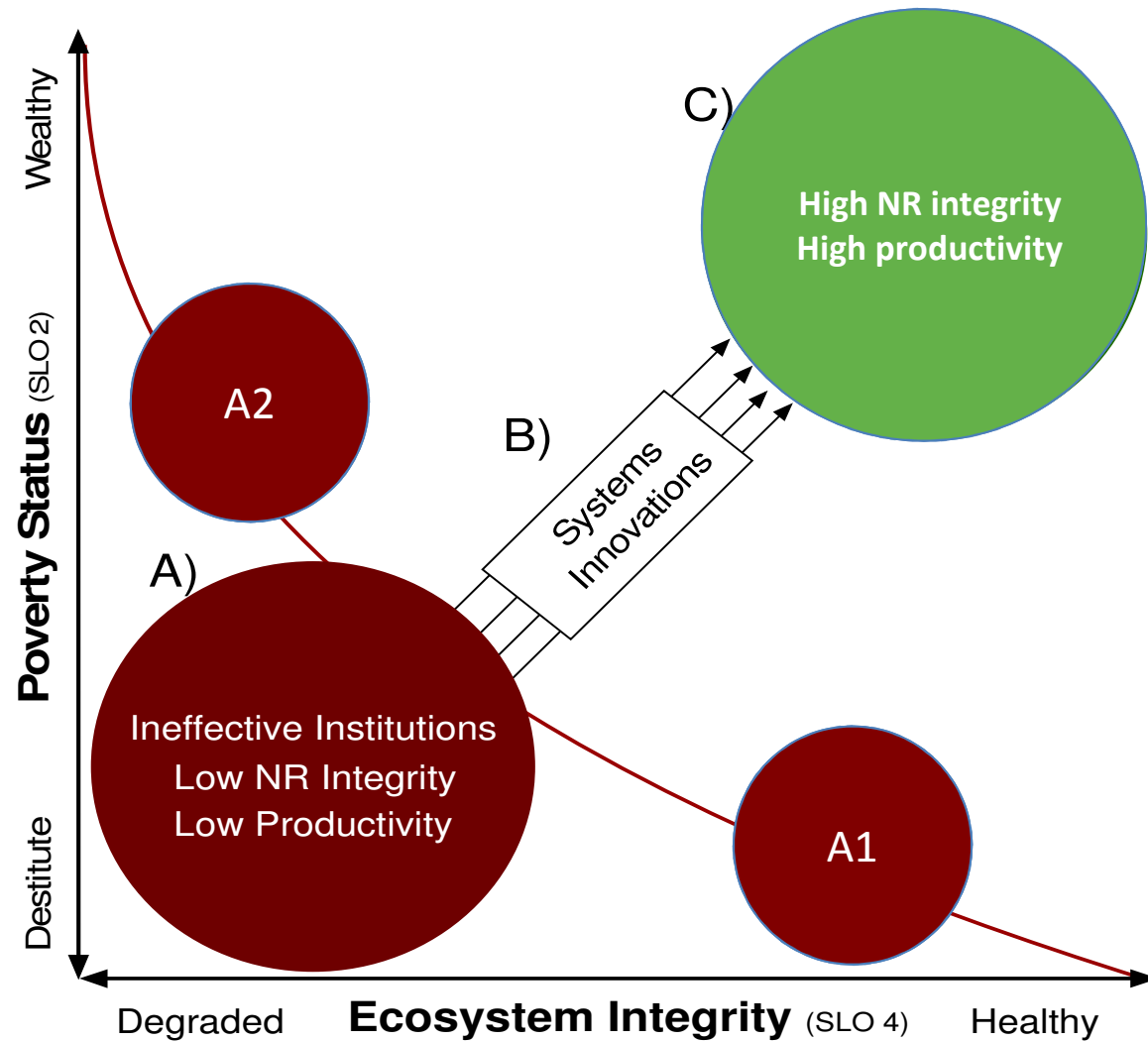# Update on Impact Assessment at IITA and Humidtropics

Tahirou Abdoulaye
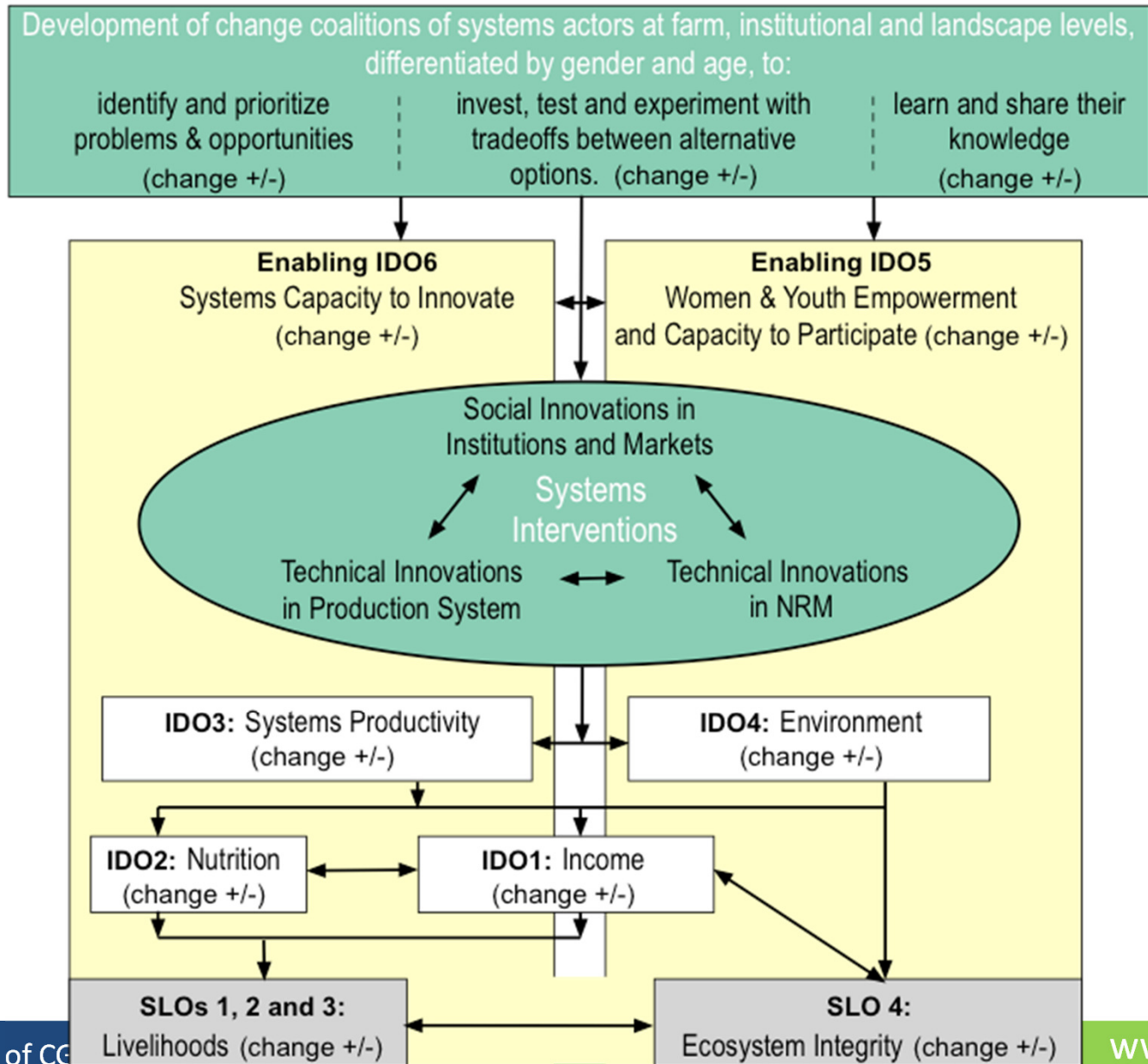
- Background

- Humidtropics

- IITA Social science

  – IA strategy

  – Impact of Cassava Interventions

- Challenges IA

Humidtropics Framework

Better livelihood opportunities in a sustainable environment

SOs
- Livelihoods Improvement
- Sustainable Intensification
- Women & Youth Empowerment
- Systems Innovation

IDOs
- Income + Nutrition
- Productivity + Environment
- Gender + Youth
- Innovation

Flagship Projects

Tier 1
- West Africa humid lowlands
- East and Central Africa humid highlands
- Central Mekong
- Central America and Caribbean
- Cross-cutting Themes

Tier 2
- West Africa Moist Savanna
- Southern Africa Moist Savanna
- Northern Andes Transect
- Indonesian Humid Lowlands

SRTs
- Systems Analysis and Global Synthesis
- Integrated Systems Improvement Productivity x NRM x Institutions
- Scaling and Institutional Innovation

A member of CGIAR consortium www.iita.org

Development of change coalitions of systems actors at farm, institutional and landscape levels, differentiated by gender and age, to:

| identify and prioritize problems & opportunities (change +/-) | invest, test and experiment with tradeoffs between alternative options. (change +/-) | learn and share their knowledge (change +/-) |

Enabling IDO6
Systems Capacity to Innovate (change +/-)

Enabling IDO5
Women & Youth Empowerment and Capacity to Participate (change +/-)

Social Innovations in Institutions and Markets

Systems Interventions

Technical Innovations in Production System

Technical Innovations in NRM

IDO3: Systems Productivity (change +/-)

IDO4: Environment (change +/-)

IDO2: Nutrition (change +/-)

IDO1: Income (change +/-)

SLOs 1, 2 and 3: Livelihoods (change +/-)

SLO 4: Ecosystem Integrity (change +/-)

- Conduct Situation analysis and Baseline studies

- Monitor Key performance indicators

- Conduct ex-post Impact assessment in the Action areas

- Partner with other CRPs

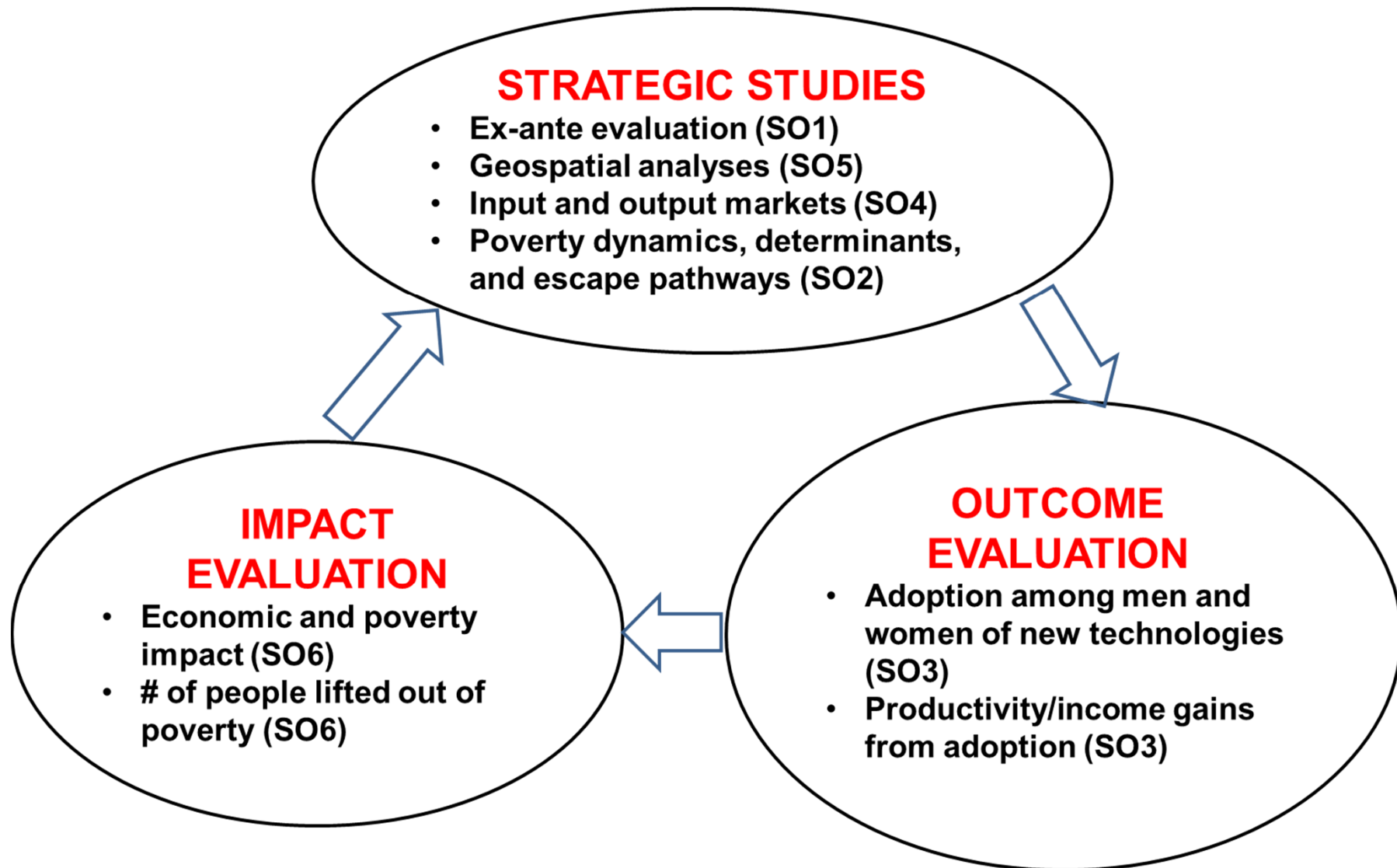# IITA Impact assessment Strategy

Figure: Social Science and Agribusiness R4D: Process and Functions

## Objective 1: Ex ante impact assessment and forecasting for priority setting

- Define priorities for efficient allocation of scarce resources

- Identify future plausible scenarios to guide present investment in addressing future problems

Objective 2: Poverty dynamics: determinants and pathways, household panel data

- Social, economic & technological trends and dynamics

- Farmers' typologies

- Pathways out poverty

Objective 6: Ex-post impact evaluation for accountability and learning

- Develop frameworks and methodologies for impact evaluation

- Assess the impact of aR4D and genetic resource conservation

- Track IITA's contribution to poverty reduction (#people lifted out of poverty)
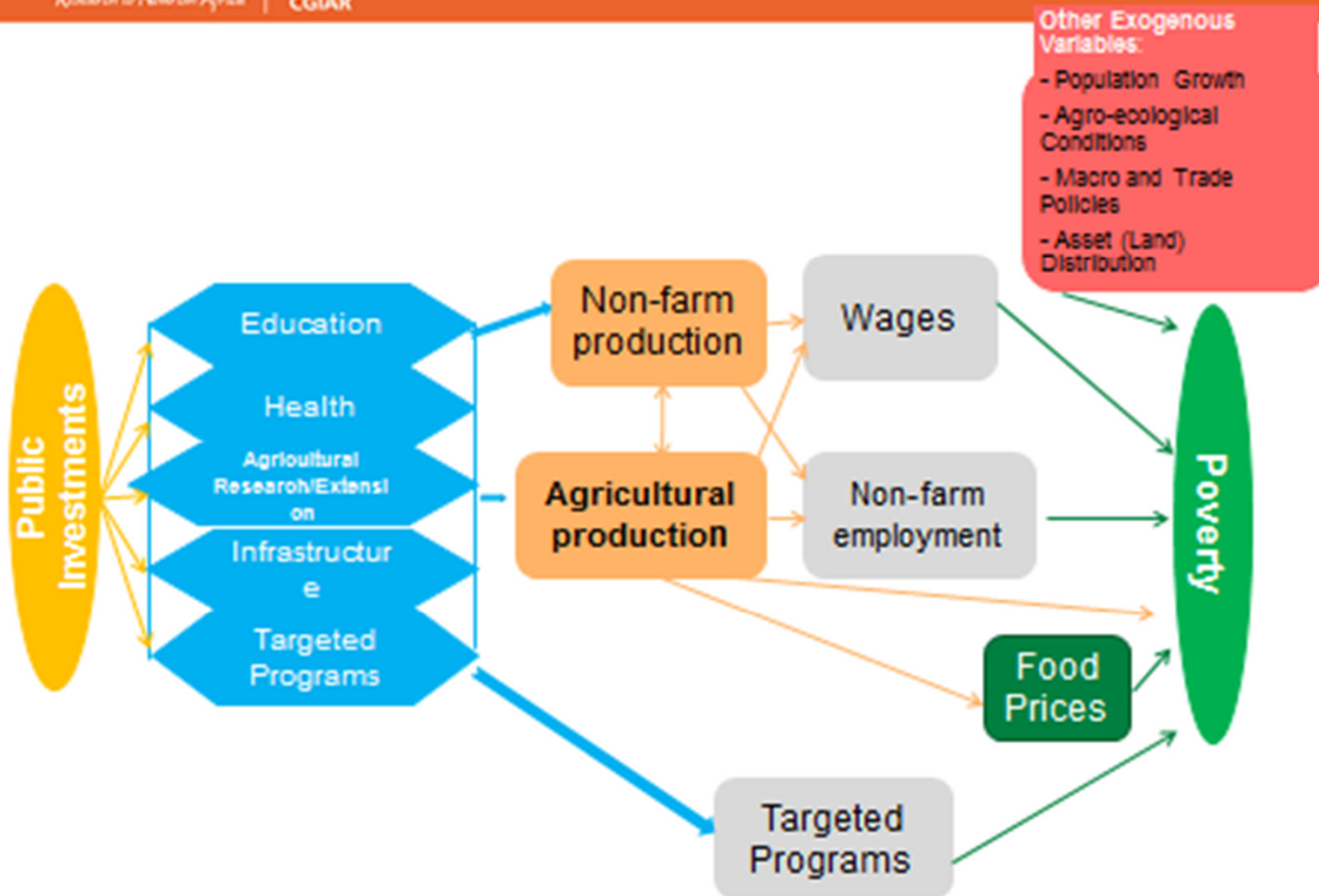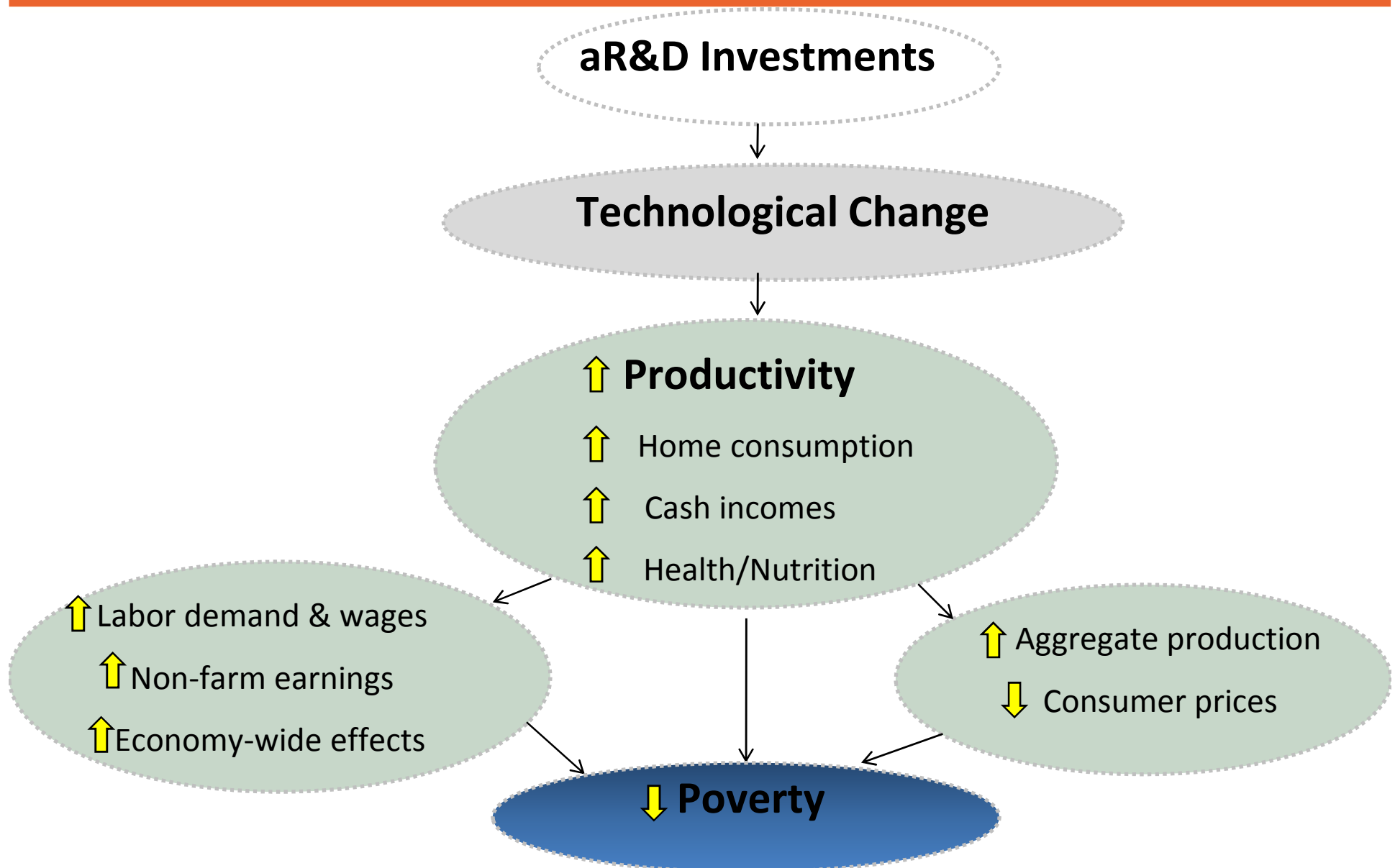
1. Measurement of poverty: $1.25/day/person

2. Geographic target through adoption domains - SSA: All IITA project sites and where there is prior information about the large-scale use of IITA technologies.

3. Data: Secondary sources (mainly LSMS) and nationally representative surveys (both cross sectional and Panel)

4. Partnership – multidisciplinary team at IITA, ARIs, National partners (National bureau of statistics, NARS) , CRPs, IFAD (Statistics and Studies for Development Division), Worldbank (LSMS/ISA), SPIA etc......

IITA | CGIAR
Research to Nourish Africa

Does a cassava research-for-development program have impact at the farm level? Evidence from the Democratic Republic of Congo

Rusike et al., (2014) Food Policy 46; 193–204

➢ This paper evaluates the impact of a cassava research-for-development program on farm level outcomes

➢ The outcomes: household participation in cassava markets, adoption of improved varieties, plot level yields and household food adequacy,

➢ The study test whether the R4D program has a statistically significant effect on outcomes of interest and if these are not driven by selection on unobservables.

➢ The program was implemented in the Democratic Republic of Congo from 2001 to 2009.

➢ The study employ a number of techniques to farm survey data collected during 2009 cropping season

➢ Estimation using propensity score matching

❑ Rosenbaum bounds on treatment effects,

❑ Altonji et al. method of selection on observables and unobservables

❑ Endogenous switching regression.

- There are statistically significant positive effects on:
  - Household participation in cassava markets,
  - Adoption of improved varieties and crop management practices
  - Household food adequacy

- However, there was no statistically significant effects on yields and profits.

- Bias due to selection on unobservable is not severe enough to invalidate the impact estimates.

- The significant program effects on market participation, variety adoption, and food adequacy merit further promotion of the program

- These positive outcomes tend to be pre-conditions for realizing long-term yield and profit benefits.

- Impact of adoption of Improved maize in Nigeria and other SARD-SC countries (Mali, Ghana and Zambia)

- Impact of improved Cowpea in Nigeria (with SPIA using LSMS-ISA data)

- Impact of cleaned planting material of Yam in Ghana and Nigeria

- Impact of Striga resistant/tolerant maize and cowpea in Kenya and Nigeria

- Adoption and Impact of cowpea storage bags in Nigeria, Burkina Faso, Ghana, Uganda and Tanzania (With Purdue University)

- Selection Bias and confounding factors – especially on past and on-going programs – attribution problems

- Difficulties in transitioning into experimental methods

- Data quality – noise in some variables such as plot level yields in RTB crops

- Track poverty reduction (#people lifted out of poverty)

THANK YOU FOR LISTENING