



# **The ‘Livelihood’ Challenge and Sustainable Agriculture: Evidence from Smallholder Cocoa Farming Households in Nigeria**

By

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# Introduction

- Global Trade
  - Exchange of goods resources
  - Individuals/companies
  - Across borders: Legal/**Illegal**
  - Governments

Smallholder farmers  
(300,000 – 350,000 )  
some commercial plantations  
Total land area: 1,400,000 hectares

Export destinations - Cocoa beans

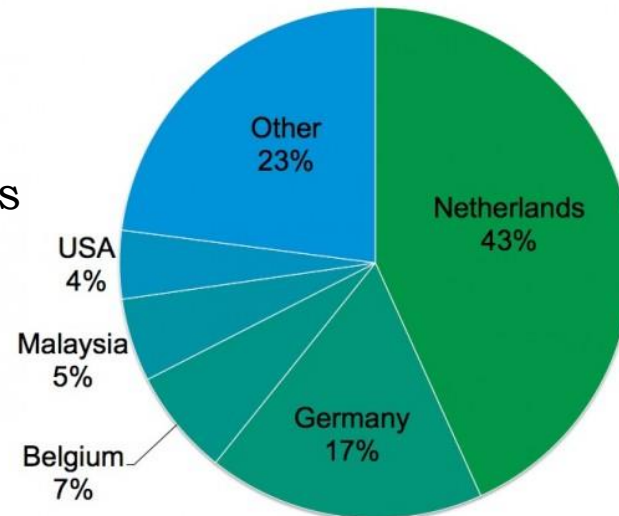


Figure 2: Source: NEPC, 2017

Total exports in USD million - Cocoa beans

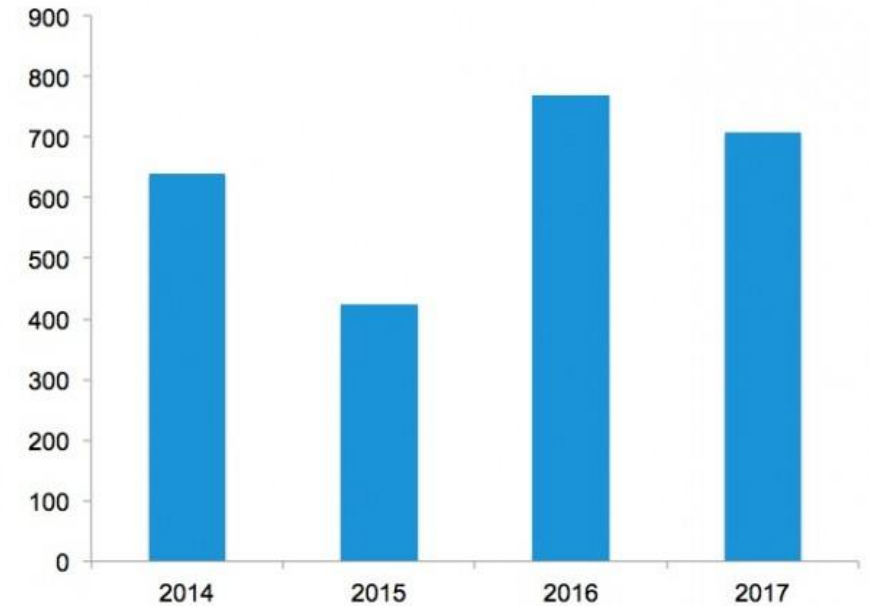


Figure 1: Source: NEPC, 2017

# Introduction

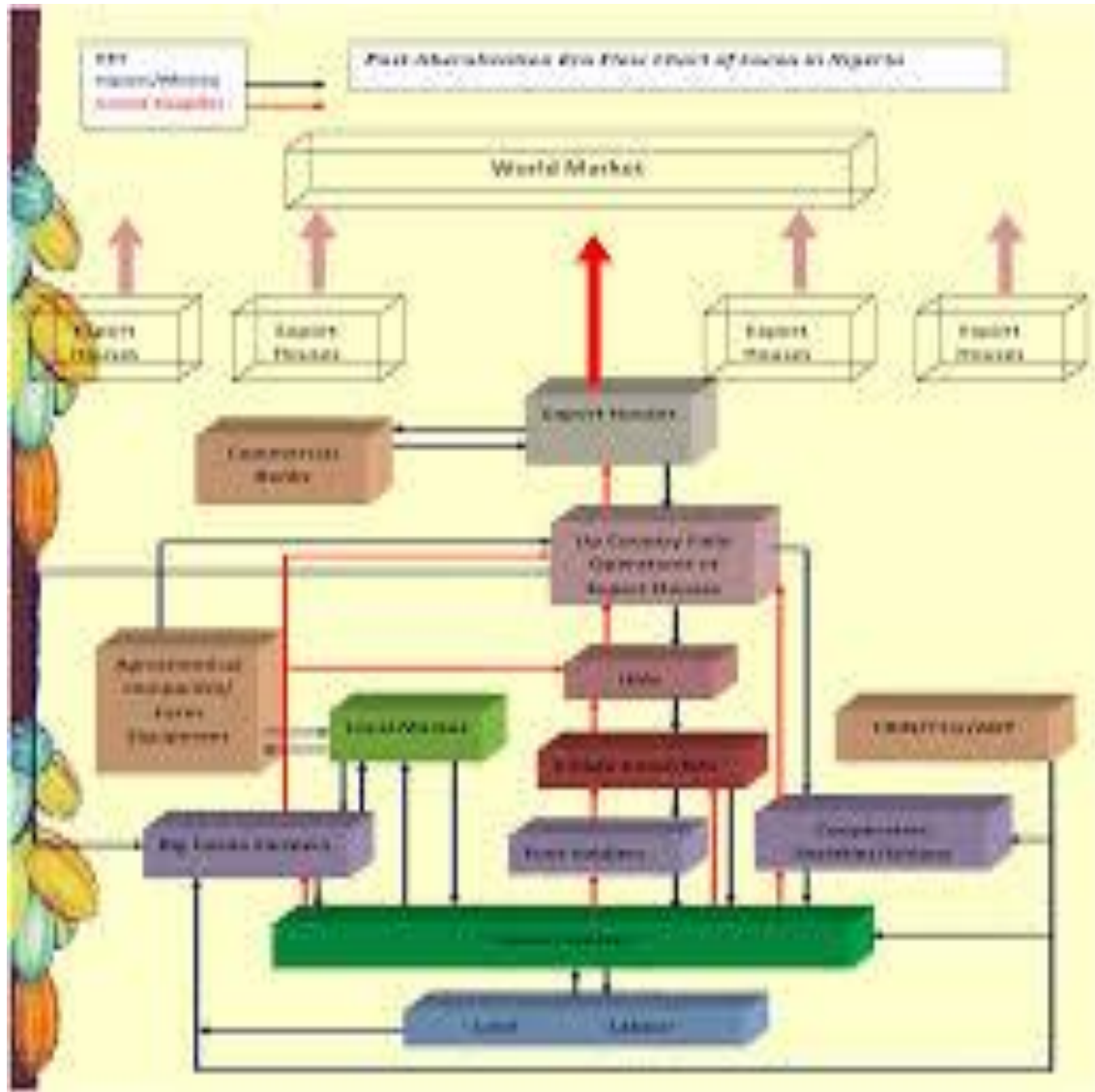


Figure 3: Source: Oguntade, cited in MAFAP 2013

## The Debate: Conventional or Agro-ecological Production

Nutrient, market, environment, food safety, sustainability

Wrong or right?

Reframing?

Context?

What could be missing or what is being overlooked?

‘Livelihood’ challenge  
Complexities framing choices

Consideration of existing VCs in the debate



# Problem Statement

- What complexities underlie farmers' decisions in cocoa production
  - The trajectories into the sector;
  - current production practices
  - commercialization models

## Agricultural Policy Research in Africa

The pathways to agricultural commercialization in Sub-Saharan Africa;

How do farmers engage with commercial agriculture from production to processing and marketing; and

the effects these pathways have on women and young people

# Methodology

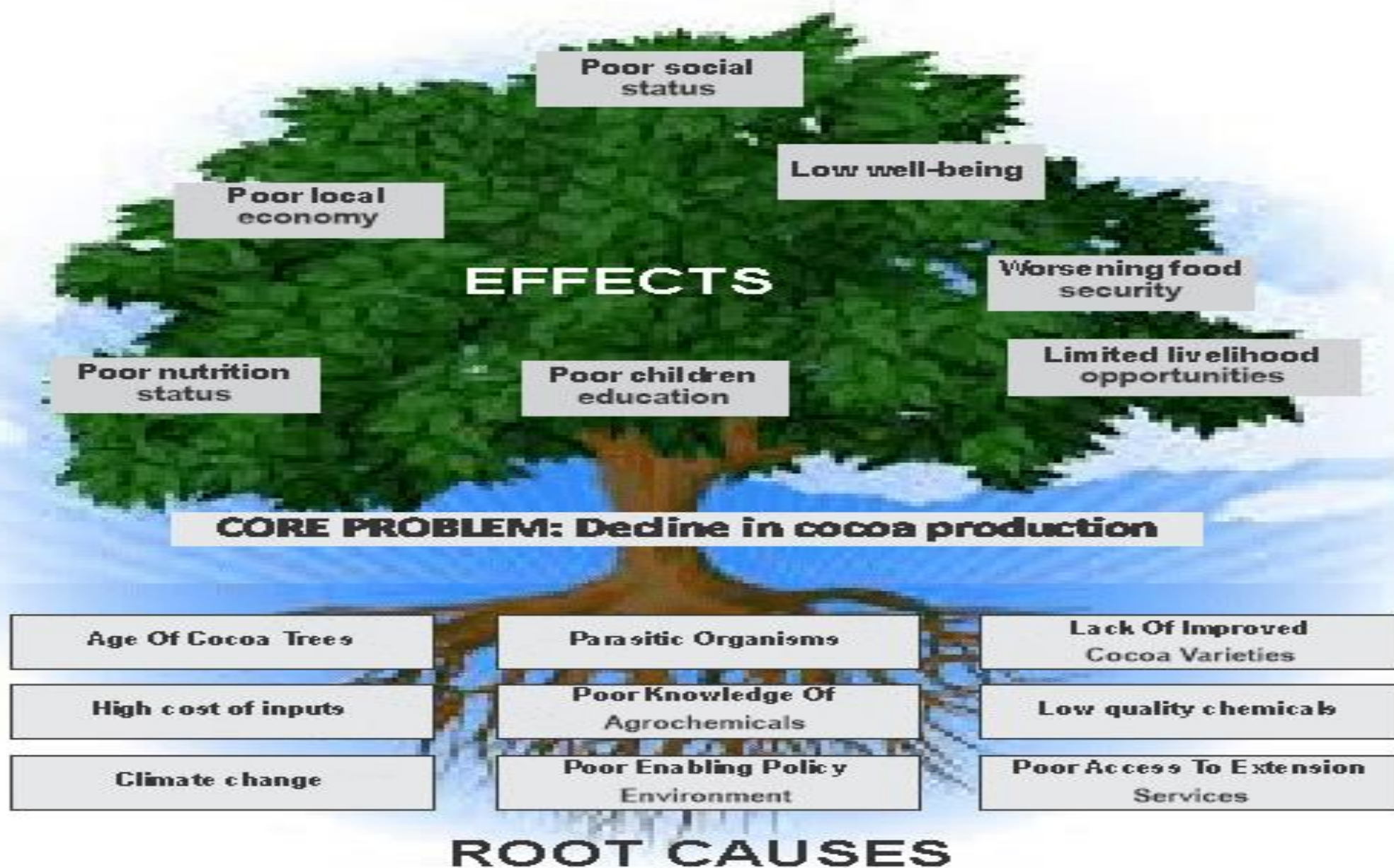
- Study Area
  - Osun, Ondo and Ogun States
  - **Low** and High cocoa producing zones in each state
- Research Approach
  - Mixed method
  - Sequential exploratory
    - Qualitative
    - Quantitative
- Data Analysis
  - Descriptive
  - Probit and Tobit Regression Models



# Results

- **Local Political and Socio-Cultural structures (+ or – WOMEN) + URBANIZATION**
  - Land
  - Labour
  - Migration
  - Wealth structure (urbanization influence is positive)
  - Gender roles
- **Local Resource ‘markets’ and Resource Use/Allocation**
  - land, labour, agro-chemicals and credit markets governed by economic and socio-cultural factors;
  - **Conflicts**
- **Cocoa Production and commercialization**
  - Decline in production driven by:
  - Poor technology, poor knowledge of the agro chemicals to use, low quality of chemicals, changing family structure etc.
  - Leading to
  - limited livelihood opportunities, poor income, nutrition etc.
  - Return’ or development of alternative livelihood activity-oil palm, food crops, grocery store, bike riding

# Results



# Results

- **Decision Making**

- Production
- Processing
- Marketing
- Use of own resource

Over 70% taken by HH and the focus is increased revenue and improved social status (capital accumulation)

- **Commercialization**

- Output (very high)
- Land (high)
- Labor (low) Nature of the 'exchange'?

- **Cocoa Production and commercialization**

- Decline in production driven by:
- Poor technology, poor knowledge of the agro chemicals to use, low quality of chemicals, changing family structure etc.
- Leading to
- limited livelihood opportunities, poor income, nutrition etc.
- Return' or development of alternative livelihood activity



# Results

**Table 1: Estimates of Probit Regression**

Number of obs = 166 LR chi <sup>2</sup> (10) = 24.70 Prob > chi <sup>2</sup> = 0.0060 Log likelihood = -101.25244 Pseudo R <sup>2</sup> = 0.1087			
Variables	Coefficient	Standard Error	P>  z
Variety of Cocoa cultivated	0.56	±0.23	<b>0.02</b>
Family size	<b>-0.07</b>	±0.03	0.02
Non-farm income source	<b>-0.39</b>	±0.22	0.07
Sex of Household head	0.02	±0.30	0.95

# Results

**Table 2: Estimates of Tobit Regression**

		Number of obs = 169	
		LR chi <sup>2</sup> (11) = 24.70	
		Prob > chi <sup>2</sup> = 0.0000	
		Log likelihood = 152.46332	
		Pseudo R <sup>2</sup> = -0.1584	
Variables	Coefficient	Standard Error	P> t
Total expenditure (₦)	3.70e-08	±9.41e-09	0.00
Family size (Number)	0.000	±0.000	0.00
Cocoa cultivated as main crop (0/1)	0.003	±0.001	0.03
Non-farm income source (0/1)	0.001	±0.001	0.58
Membership of Association (0/1)	0.002	±0.001	0.06
Farm Size (Hectares)	-7.57e-06	±0.000	0.83
/sigma		.0048784	.0005587
		.0037751	.0059818
117	left-censored observations at Market Share <= .005		
52	uncensored observations		
0	right-censored observations		