

# CHANGING FARM STRUCTURE AND RURAL TRANSFORMATION IN AFRICA

C4a team:

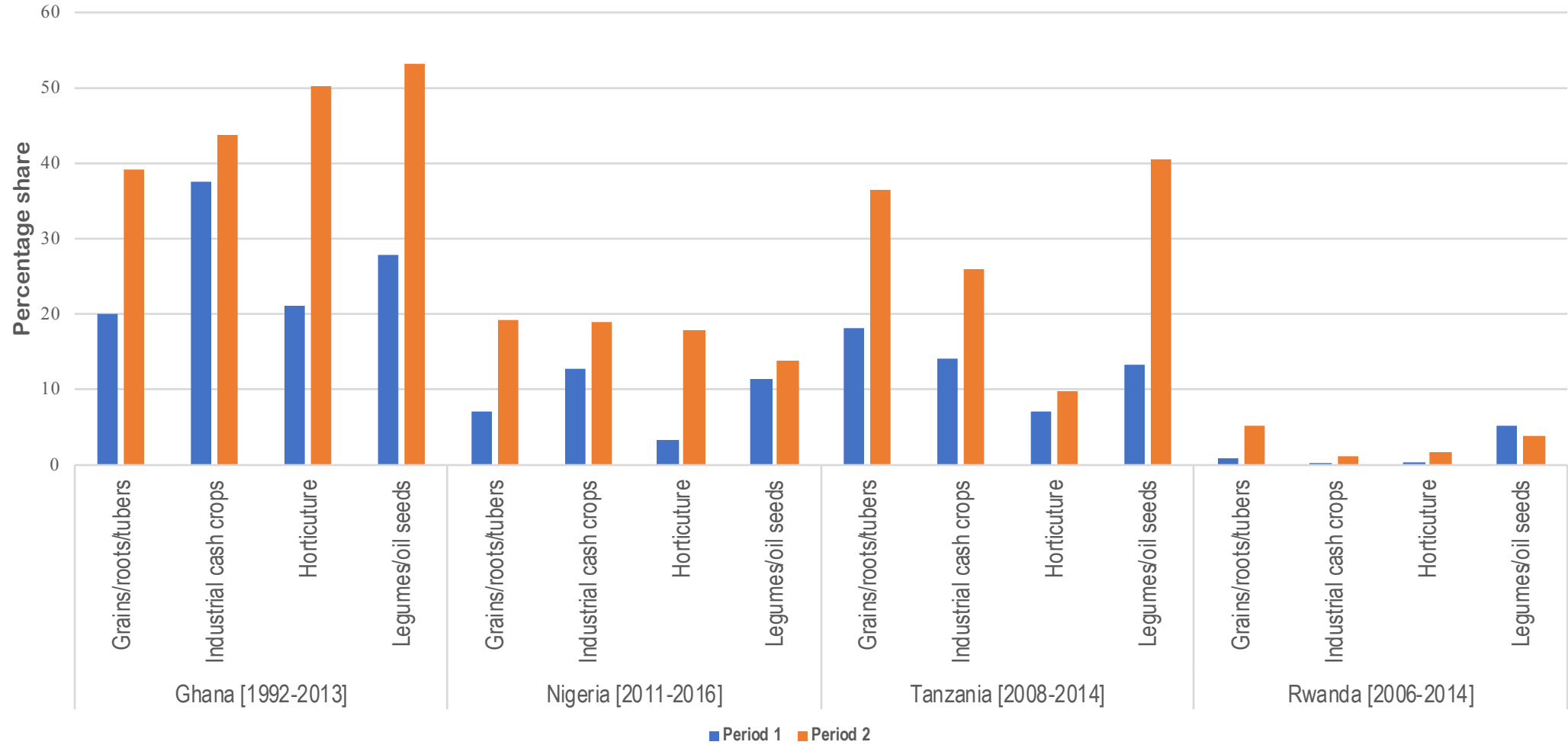
T. S. Jayne, Milu Muyanga, Hosaena Ghebru, Mercedes Stickler, Caleb Stevens, Ward Anseeuw, Ayala Wineman, Kwame Yeboah, Antony Chapoto, Divan Van der Westhuisen

Presentation at Food Security Innovation Lab Reflection Workshop  
March 5-6, 2019  
Washington, DC

# Key findings

1. Rapid rise of medium-scale farms
  - Mainly in areas with substantial potential for area expansion (Ghana, Tanzania, Zambia, Nigeria)
  - Much less so in densely populated areas (Kenya, Rwanda, Uganda)

# Share of total marketed output under MSF is growing



# Key findings (continued)

## 2. Origins of these MS farms

- Some small-scale farms successfully growing and commercializing
- Relatively wealthy rural people using non-farm income to invest in farmland
- Urban people investing in farmland

## Key findings (continued)

3. Rural transformation involves the transfer of land – allowing entrepreneurial people with access to capital to develop the land
  - Customary land is being allocated to investors
  - Land sales markets increasingly active / accepted
  - Governments are passing new land laws to allow these transfers to happen

## Key findings (continued)

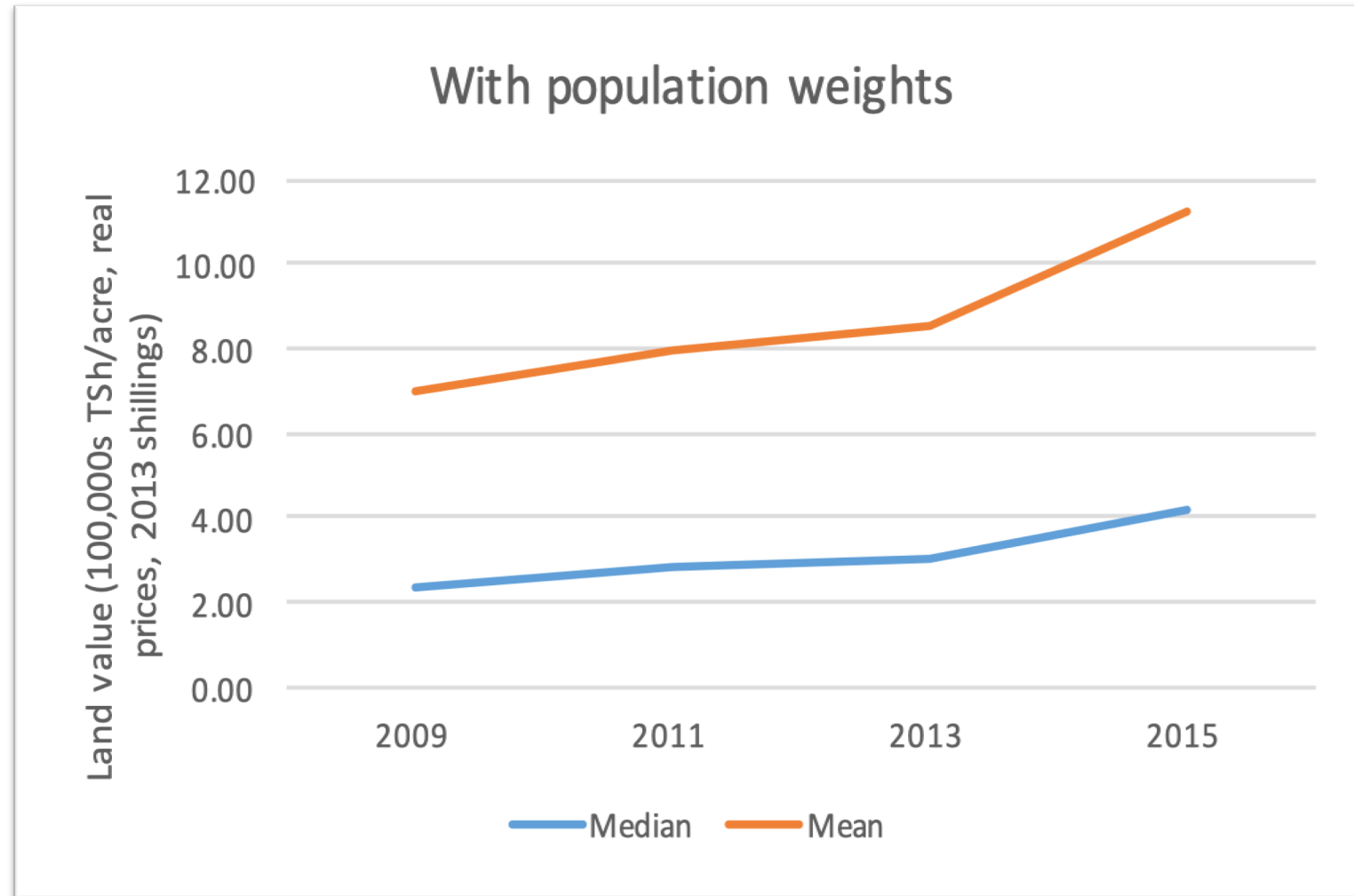
4. In contrast to Latin America, MS farms in Africa appear to be a source of rural dynamism
  - Concentration of farmland among 5-10 ha farms promotes growth in rural NF employment and p.c. incomes (Chamberlin and Jayne)
  - Concentration of farmland among 5-10 ha farms attract mechanization rental markets for SS farms.
  - MS farm concentration attracts agro-input and service providers (Wineman et al., 2019)
  - Concentration of MS farms attracts LS traders into the area, improving market access conditions for smallholders (Burke et al., 2019)



## Key findings (continued)

6. Sources of productivity advantage for farms cultivating > 10 ha, which contributes to higher net output values per hectare (Muyanga and Jayne, AJAE, 2019)
  - Mechanization → reducing labor costs, which are rising in much of Africa
  - Greater intensity of cash inputs (fertilizers, improved seed, herbicides, etc)

## Mean land prices in Tanzania: +53.9% in real terms in 6 years





# The influence of economic transformation and population density on the trajectory of agricultural transformation

**Economic dynamism**

**Economic stagnation**

**High  
population  
density**

**Low-  
population  
density**

# The influence of economic transformation and population density on the trajectory of agricultural transformation

## Economic dynamism

*Examples:* Northern Ghana, most of rural Tanzania

- Wages rising rapidly, land price still low
- Labor scarcity in agriculture
- Rise of labor-saving / capital-using technologies (e.g., mechanization, chemicals)
- Rise of large-scale farm investment featuring capital-using, labor-saving technologies

**High  
population  
density**

**Low-  
population  
density**

## Economic stagnation

# The influence of economic transformation and population density on the trajectory of agricultural transformation

## Economic dynamism

*Examples:* Rwanda, Nigeria, highland Tanzania, southern Ghana

- Both wages and land prices rising rapidly
- Rising use of land-saving and labor-saving, and capital-using technologies (fertilizers, chemicals, mechanization)

High  
population  
density

*Examples:* Northern Ghana, most of rural Tanzania

- Wages rising rapidly, land price still low
- Labor scarcity in agriculture
- Rise of labor-saving / capital-using technologies (e.g., mechanization, chemicals)
- Rise of large-scale farm investment featuring capital-using, labor-saving technologies

Low-  
population  
density

## Economic stagnation

# The influence of economic transformation and population density on the trajectory of agricultural transformation

## Economic dynamism

*Examples:* Rwanda, Nigeria, highland Tanzania, southern Ghana

- Both wages and land prices rising rapidly
- Rising use of land-saving and labor-saving, and capital-using technologies (fertilizers, chemicals, mechanization)

*Examples:* Northern Ghana, most of rural Tanzania

- Wages rising rapidly, land price still low
- Labor scarcity in agriculture
- Rise of labor-saving / capital-using technologies (e.g., mechanization, chemicals)
- Rise of large-scale farm investment featuring capital-using, labor-saving technologies

High  
population  
density

Low-  
population  
density

*Examples:* Southern Malawi, Madagascar

- slow wage increases, labor abundance
- land scarcity
- youth outmigration
- Some potential for labor-using / land-saving ISFM

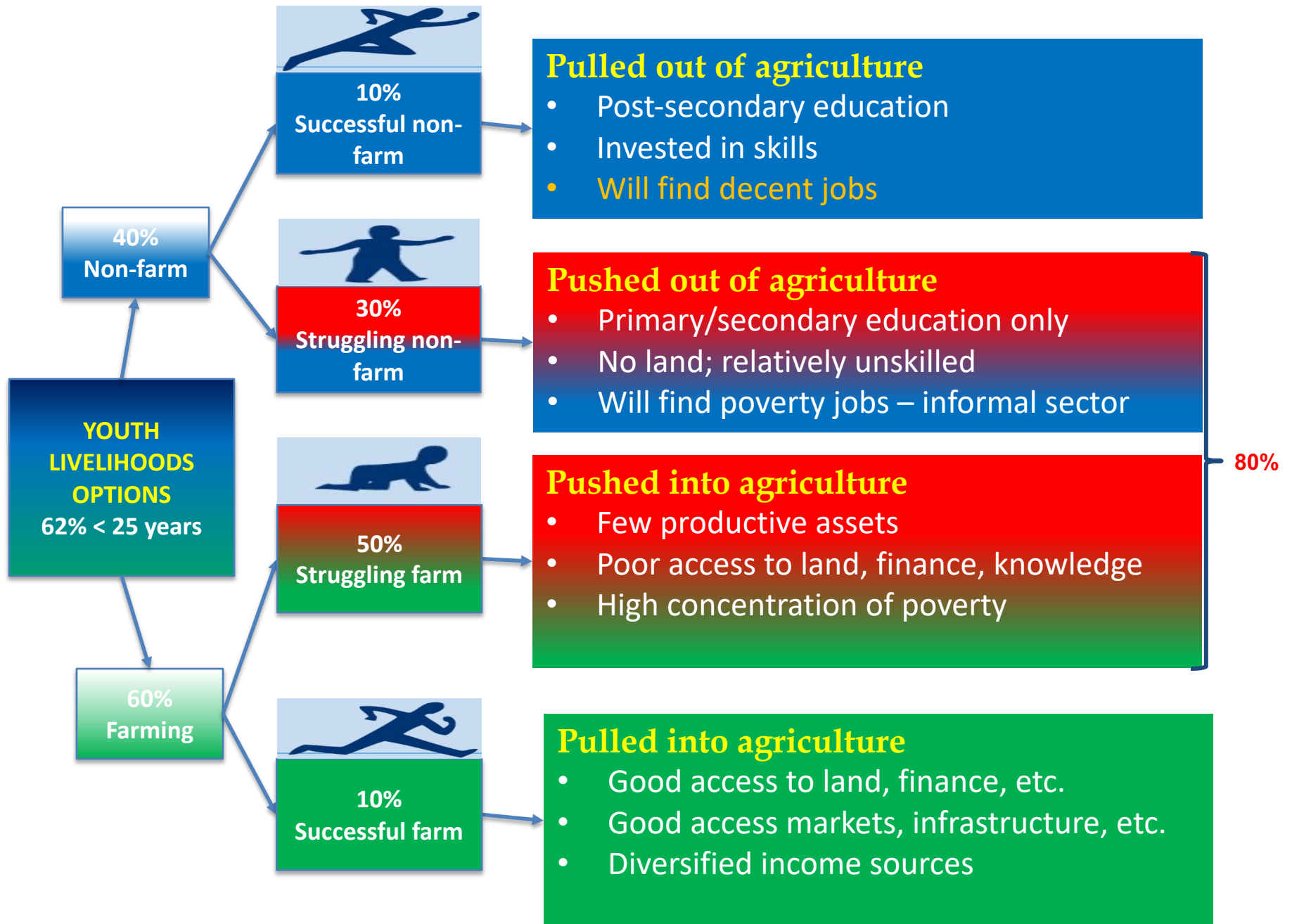
## Economic stagnation

# The influence of economic transformation and population density on the trajectory of agricultural transformation

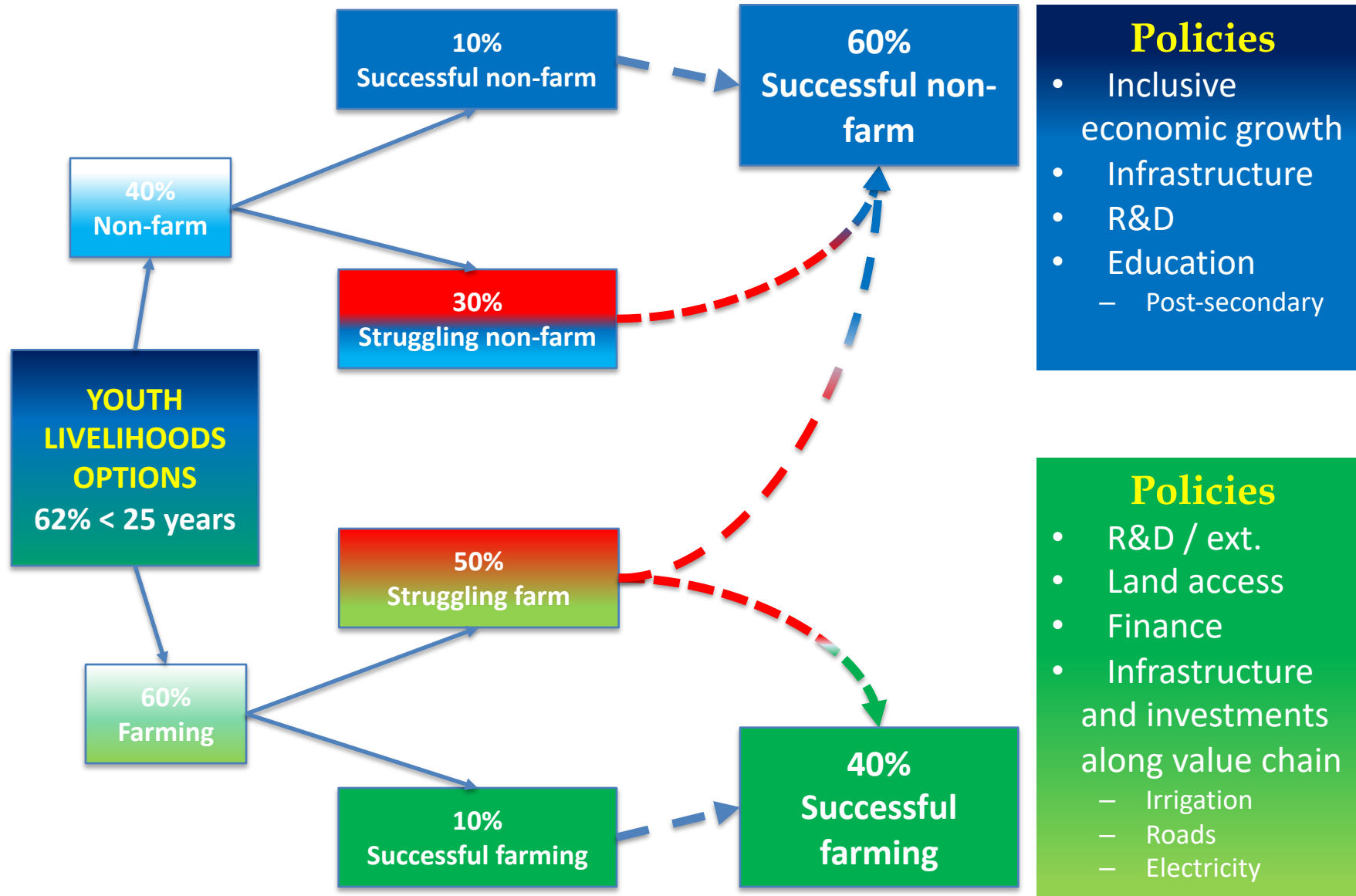
## Economic dynamism

<b>High population density</b>	<p><i>Examples:</i> Rwanda, Nigeria, highland Tanzania, southern Ghana</p> <ul style="list-style-type: none"> <li>• Both wages and land prices rising rapidly</li> <li>• Rising use of land-saving and labor-saving, and capital-using technologies (fertilizers, chemicals, mechanization)</li> </ul>	<p><i>Examples:</i> Northern Ghana, most of rural Tanzania</p> <ul style="list-style-type: none"> <li>• Wages rising rapidly, land price still low</li> <li>• Labor scarcity in agriculture</li> <li>• Rise of labor-saving / capital-using technologies (e.g., mechanization, chemicals)</li> <li>• Rise of large-scale farm investment featuring capital-using, labor-saving technologies</li> </ul>	<b>Low- population density</b>
	<p><i>Examples:</i> Southern Malawi, Madagascar</p> <ul style="list-style-type: none"> <li>• slow wage increases, labor abundance</li> <li>• land scarcity</li> <li>• youth outmigration</li> <li>• Some potential for labor-using / land-saving ISFM</li> </ul>	<p><i>Examples:</i> DR Congo, Zimbabwe</p> <ul style="list-style-type: none"> <li>• Limited incentives for extensification or intensification</li> <li>• Little use of ISFM</li> <li>• Potential for capital-intensive land investments</li> </ul>	

## Economic stagnation



# Structural transformation pathway





# Policy implications for agricultural policy

1. The rise of MS farms does not invalidate the viability of a smallholder-led agricultural strategy
2. Maintain focus on supporting productivity of smallholder farming → which will facilitate equitable transformation process
3. Except in densely populated areas, MS farms appear to be a source of productivity growth for smallholder farming
4. Sustainable intensification strategies will be highly location-specific, according to economic dynamism and population density

# Policy implications w.r.t. land policies

---

1. Support assured tenure rights to existing users
  - Women in particular
  - Land banks?
2. Support land markets to allow “indigenous” rural people to be compensated for selling their land / not just losing it

Thank You