Bangladesh's Agrifood System

Evolving Structure, Emerging Challenges

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Agricultural Transformation

Stylized stages

de Janvry and Sadoulet (2019)
Timmer (1988 and 2007)

Staples Productivity

Productivity of staple food crops rises, allowing farmers to produce marketable surplus

Crop Diversification

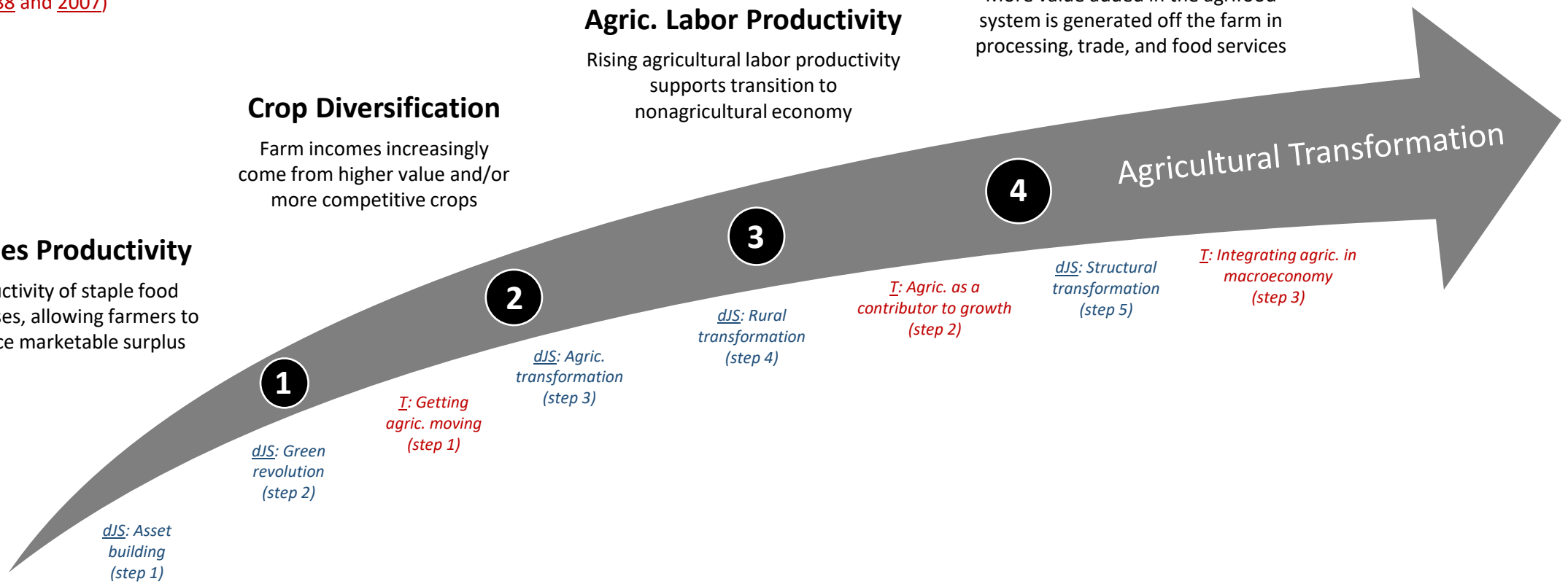
Farm incomes increasingly come from higher value and/or more competitive crops

Agric. Labor Productivity

Rising agricultural labor productivity supports transition to nonagricultural economy

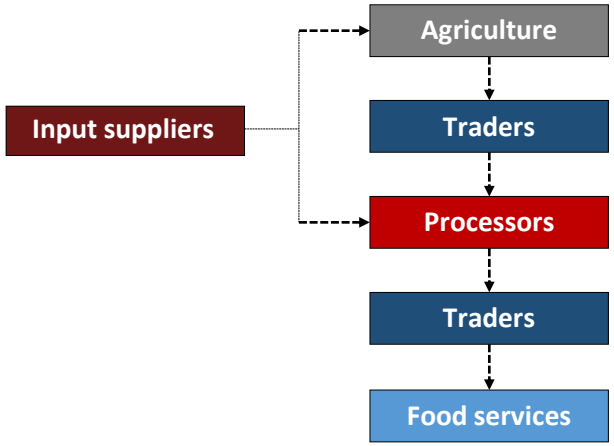
Food System Expansion

More value added in the agrifood system is generated off the farm in processing, trade, and food services

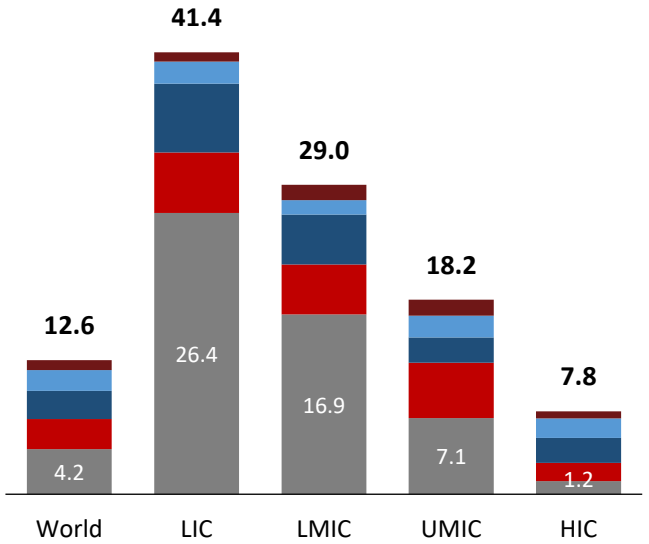


Global Agrifood System

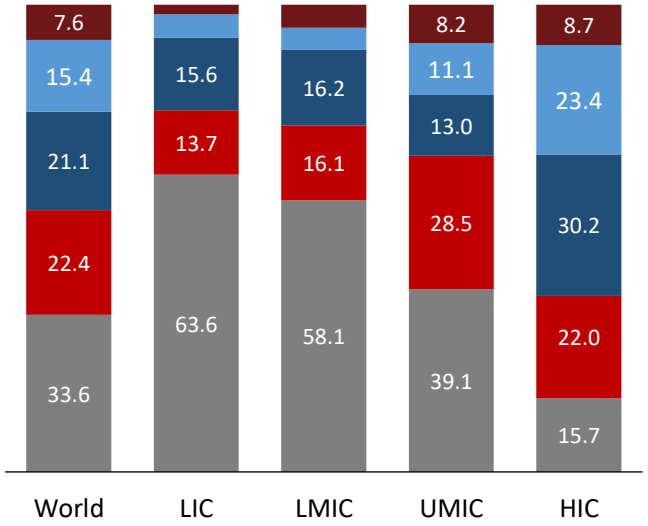
Agrifood system components



Share of total GDP in 2019 (%)



Share of agrifood GDP in 2019 (%)



LIC = Low-income countries
LMIC = Lower-middle
UMIC = Upper-middle
HIC = High

Source:
IFPRI Global Agrifood System Database (2022 edition)

Bangladesh's Agrifood System in 2019

- Use **official data sources**
  - GDP from national accounts
  - Employment from various sources (i.e., population census, ILO, etc.)
- AFS was a **quarter of total GDP** in 2019
  - $83 billion (24%)
- **Half of total employment**
  - 33 million workers (50% of employment)
- Primary **agriculture is only half of AFS GDP**
  - $44 billion out of $83

GDP and employment in Bangladesh's agrifood system (2019)

	GDP ($ billions)		Employment (millions of workers)	
Total economy	**348.0**	**100%**	**66.9**	**100%**
Agrifood system	**82.9**	**23.8**	**33.1**	**49.5**
Primary agric. (A)	43.5	12.5	25.8	38.6
Off-farm AFS	**39.5**	**11.3**	**7.3**	**10.9**
Processing (B)	12.2	3.5	2.0	3.1
Trade & transport (C)	18.6	5.3	3.6	5.4
Food services (D)	3.7	1.1	1.1	1.7
Input supply (E)	4.9	1.4	0.5	0.7
Rest of economy	**265.1**	**76.2**	**33.8**	**50.5**

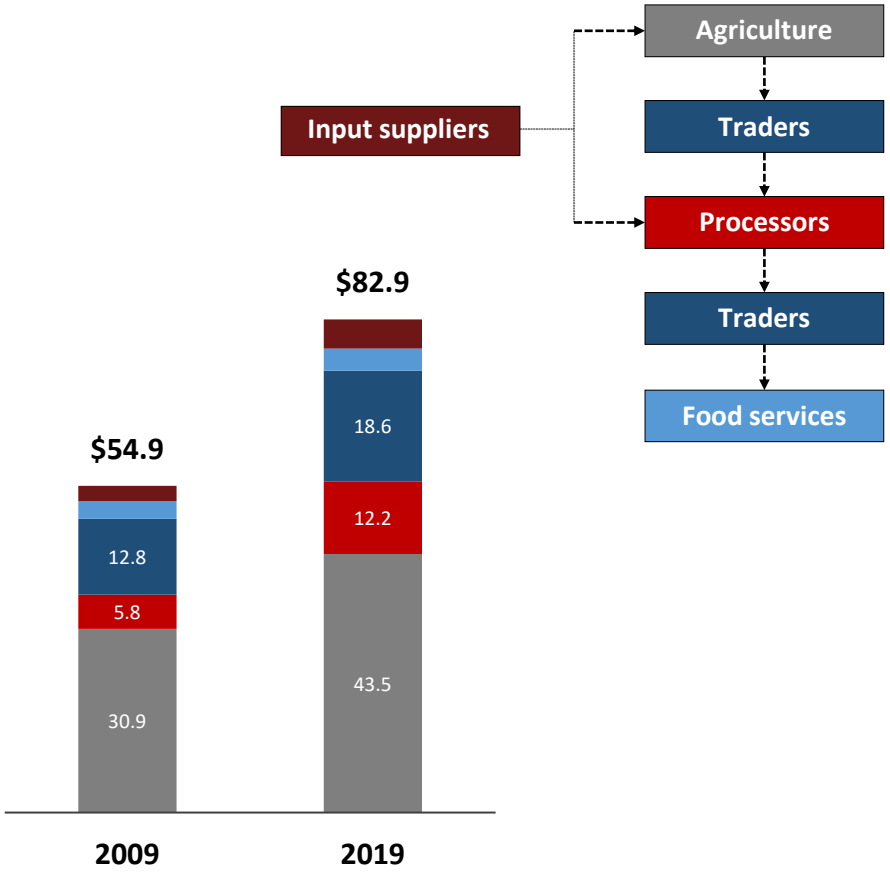
Labor Productivity

Agricultural transformation contributes positively to national structural change

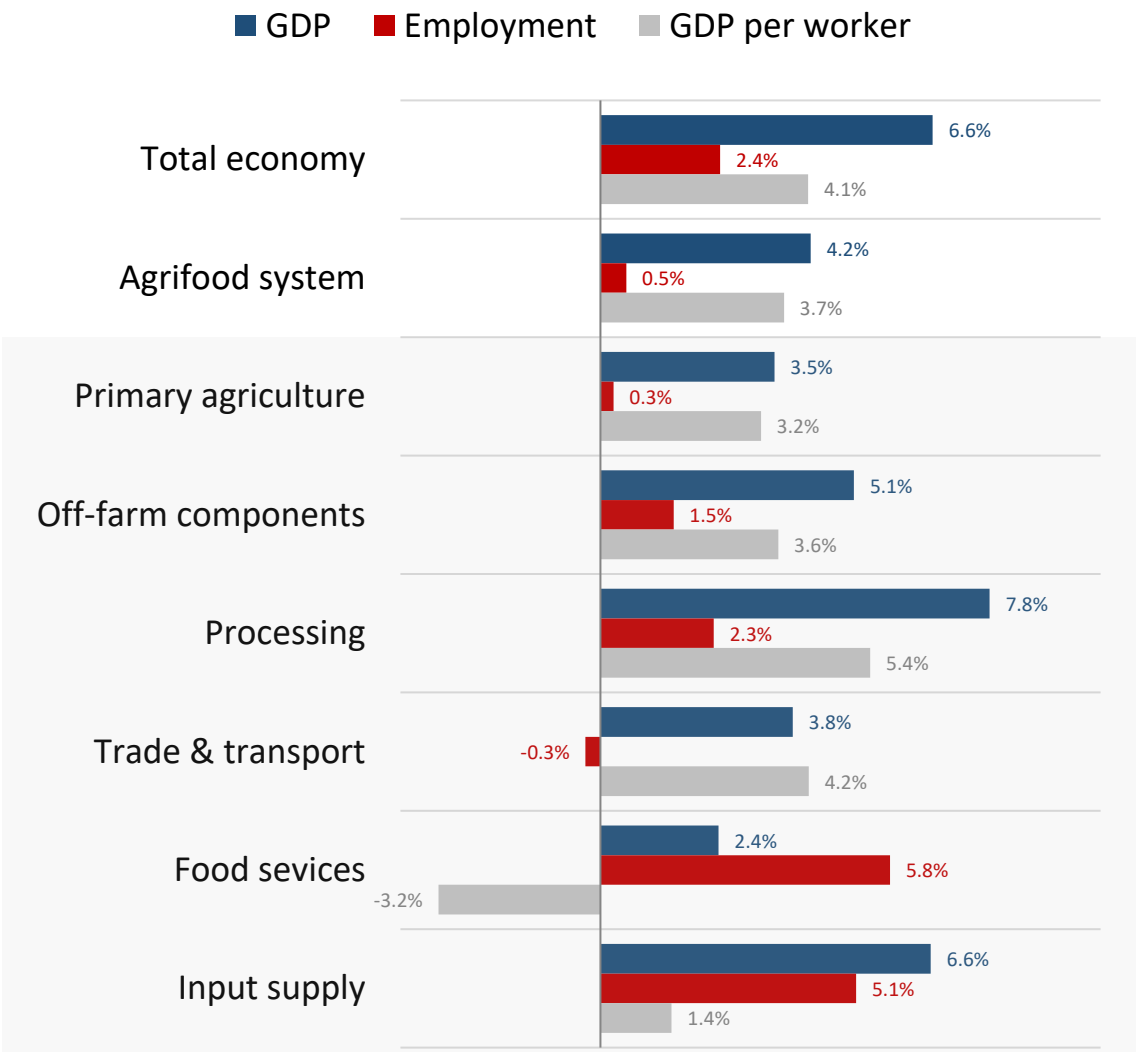
- Labor productivity is higher in the off-farm components of the agrifood system
- Workers exiting agriculture raise average economywide labor productivity

Agricultural Transformation During 2009-2019

Agrifood system GDP in 2009 and 2019 ($ billions)



Average annual growth rate during 2009-2019 (%)



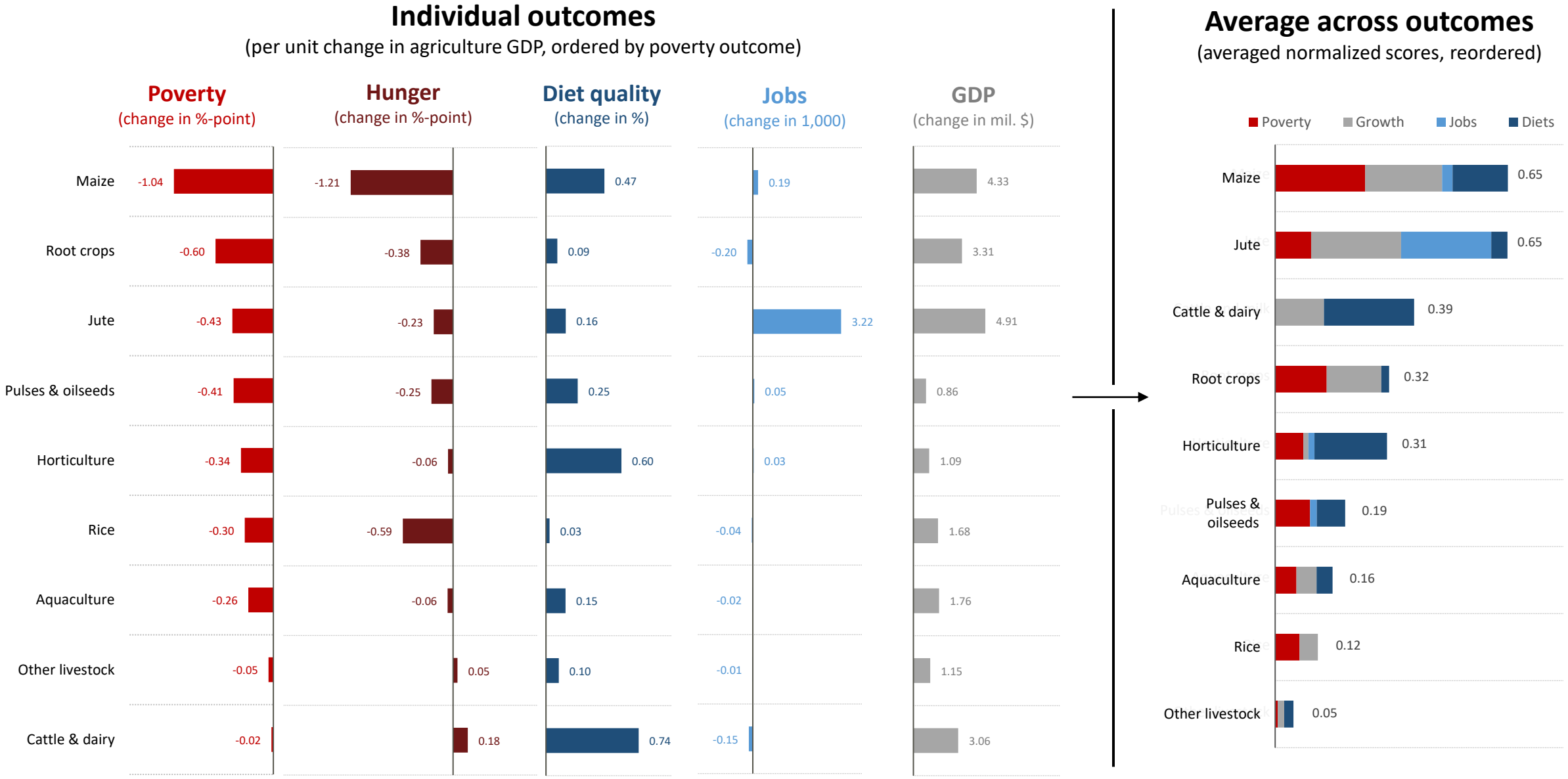
Modeling Futures Sources of Agricultural Growth

- **Use IFPRI's RIAPA model**
  - Economywide
  - Macro-micro

- **Expand production in different value chains**
  - Increase on-farm productivity growth rates in targeted value chains
  - Achieve same overall growth in agriculture GDP (e.g., 1.0%)
  - Track linkage effects within value chains and spillover effects to other value chains

- **Track and compare different outcomes**
  - Poverty Poverty-growth elasticity (percentage points, World Bank's $2.15-a-day poverty line)
  - Hunger Hunger-growth elasticity (percentage points, FAO's prevalence of undernourishment)
  - Diet Diet quality to growth elasticity (%, IFPRI's Reference Diet Deprivation index)
  - Jobs Employment multiplier (1000 jobs per US$1 million growth in targeted value chain)
  - GDP GDP growth multiplier ($ millions of GDP per $1 million growth in targeted value chain)

Trade-Offs Across Sources of Agricultural Growth



Summary

- **Bangladesh's agrifood system stretches far beyond the farm**
  - Off-farm components are half of the AFS and have higher labor productivity

- **Off-farm components are growing faster than primary agriculture**
  - Helping drive positive structural change

- **Agricultural transformation in Bangladesh is proceeding strongly and as expected**
  - Compared to cross-country evidence

- **However, as agricultural transformation proceeds, policy domain become more complex**
  - More sectors spanning multiple ministries within different (sometimes competing) mandates
  - Unavoidable trade-offs become more pronounced and more challenging to manage

- **Agrifood system governance becomes more important**