

Modernizing agriculture and fisheries: Overview of issues, trends, and policies



Philippine Institute for Development Studies

Surian sa mga Pag-aaral Pangkaunlaran ng Pilipinas

Rationale

- **Agriculture and Fisheries Modernization Act of 1997 (RA 8435)** – landmark legislation towards modernizing agriculture and fisheries
- **Questions:**
 - How far has process of AF modernization gone?
 - Is modernization on track, ahead of expectation, or lagging behind?
 - What are the future prospects for continuing or completing the task of AF modernization?
 - What types of policies are needed to ensure AF modernization?
- *Previous studies not able to answer these questions – different emphasis*

Theory of agriculture modernization

Economic context

- Context of agricultural modernization is **modernization of entire economy**
- Stylized fact: structural change – “industrialization”
- Explanations: dual development, neoclassical, post-Keynesian, agent-based model
 - Neoclassical:
Demand-side explanation → Engel effect;
Supply-side explanation → capital intensification effect

Economic context

Dual development

- Traditional sector – agrarian, surplus labor, wage = average product
- Modern sector – industrial, scarce labor, wage = marginal product, capital accumulation
- Economic development involves transfer of labor from traditional to modern sector, sustained capital accumulation in modern sector, long period of stagnant wages before a “turning point”
- With population growth: technical progress in agriculture may be necessary to sustain economic modernization

Development constraints at varying scales

- Macro, micro, meso constraints – addressed by AFMA
- Macro constraints:
 - rigidities to intersectoral migration
 - slow pace of capital accumulation

→ *AFMA insists on key role of agriculture while embracing structural change*
- Micro constraints – farm level
 - Lack of information
 - Market failures – finance, labor, **land**

→ *AFMA provides for interventions in technology, credit, information*

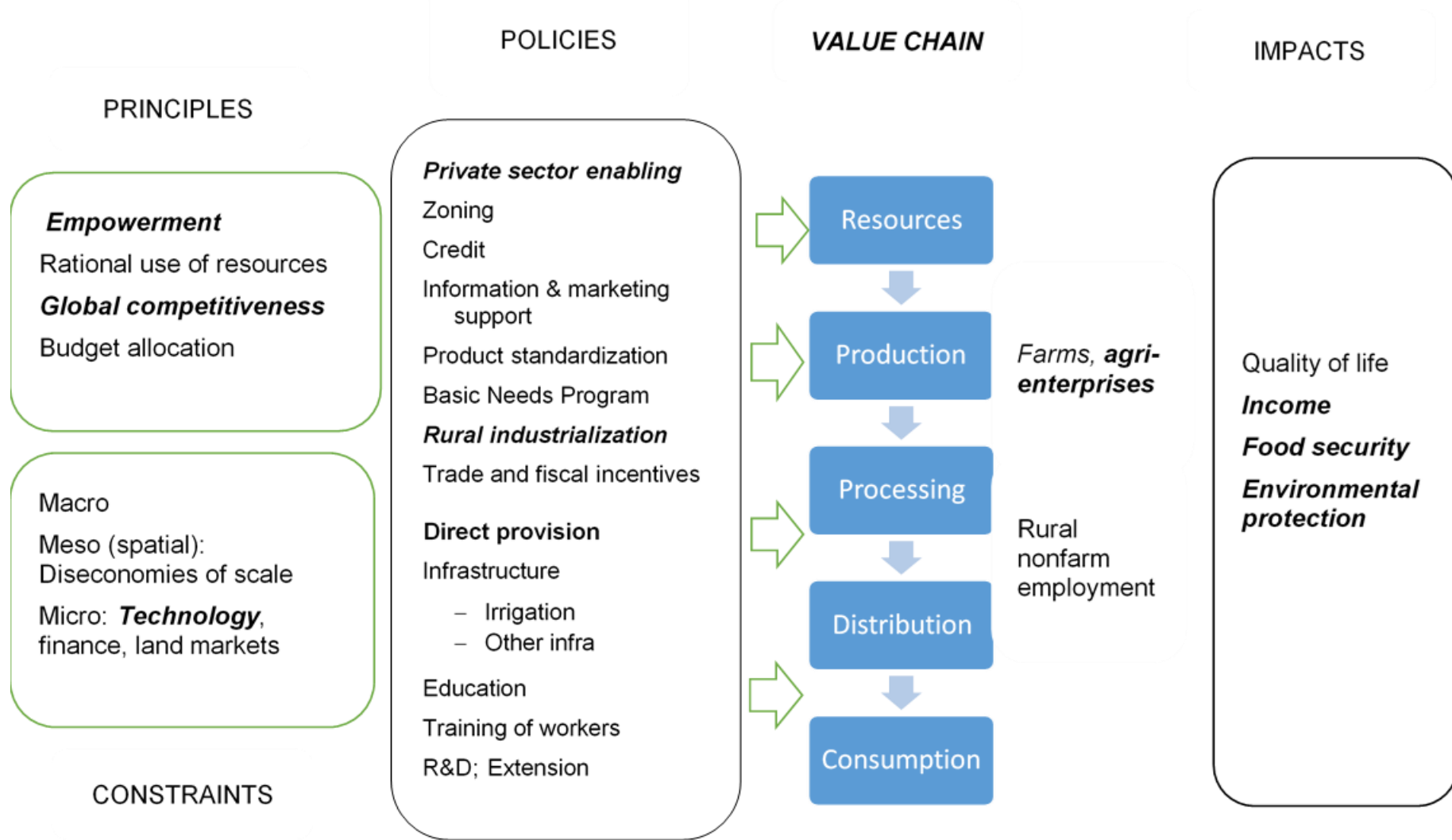
Development constraints at varying scales

- Meso constraints:
 - Collective action at farm level
 - Vertical coordination with large-scale processing
 - Critical mass for support services
- *Land use planning, irrigation, other infrastructure, collective action, empowerment*

Scope under AFMA: Objectives

- 1) To modernize the agriculture and fisheries sectors by transforming these sectors from a resource-based to a technology-based industry
- 2) To enhance profits and incomes in the agriculture and fisheries sectors
- 3) To ensure the accessibility, availability, and stable supply of food at all times;
- 4) To encourage horizontal and vertical integration, consolidation, and expansion of agriculture and fisheries activities;
- 5) To promote people empowerment by strengthening people's organizations, cooperatives and NGOs;
- 6) To pursue a market-driven approach to enhance the comparative advantage of our agriculture and fisheries sectors in the world market;
- 7) To induce the agriculture and fisheries sectors to ascend continuously the value-added ladder;
- 8) To adopt policies that will promote industry dispersal and rural industrialization;
- 9) To provide social and economic adjustment measures that increase productivity and improve market efficiency while ensuring the protection and preservation of the environment and equity for SFF.

Theory of Change for AFMA



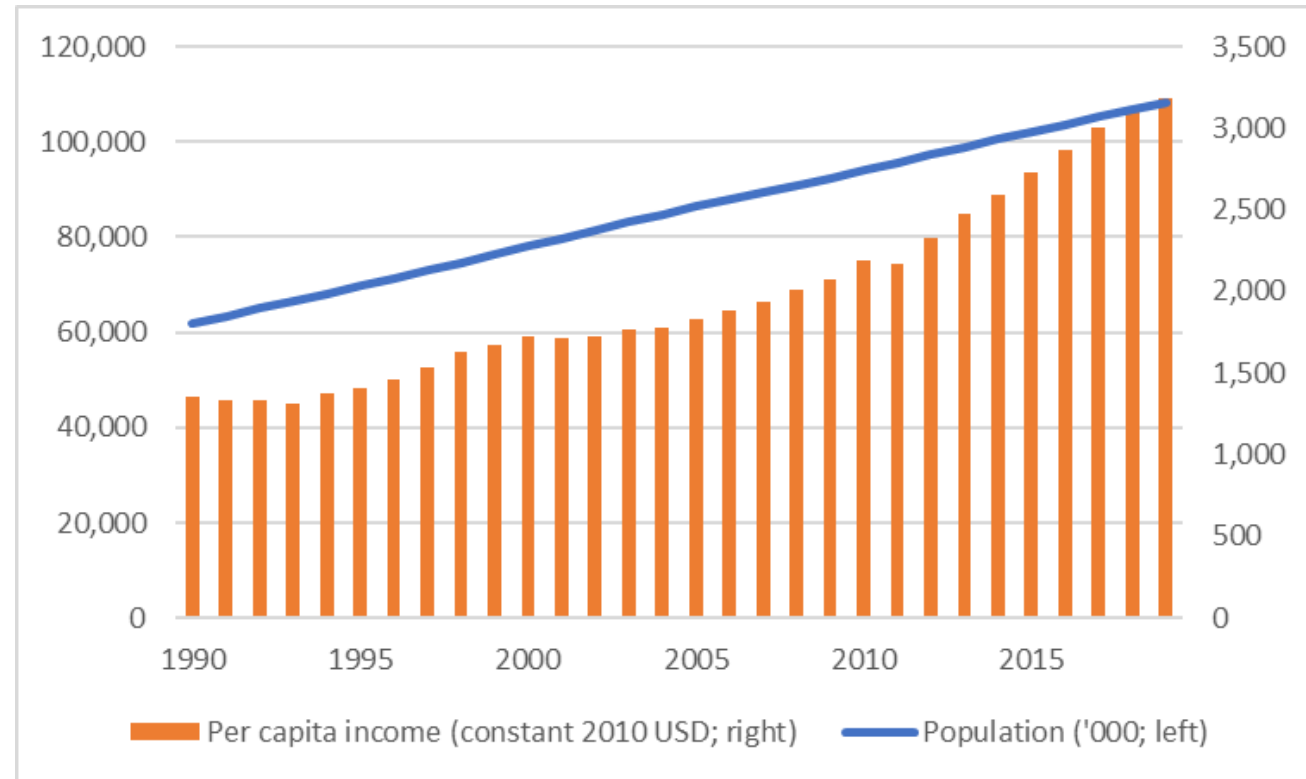
Agriculture modernization in the Philippines

Economic context

Continuing growth of the population

Long-term expansion as measured by per capita income:

- 2019: gained 53% from 2009
- Growth accelerated to 4.3% per year, from an average of just 2.4% before 2009

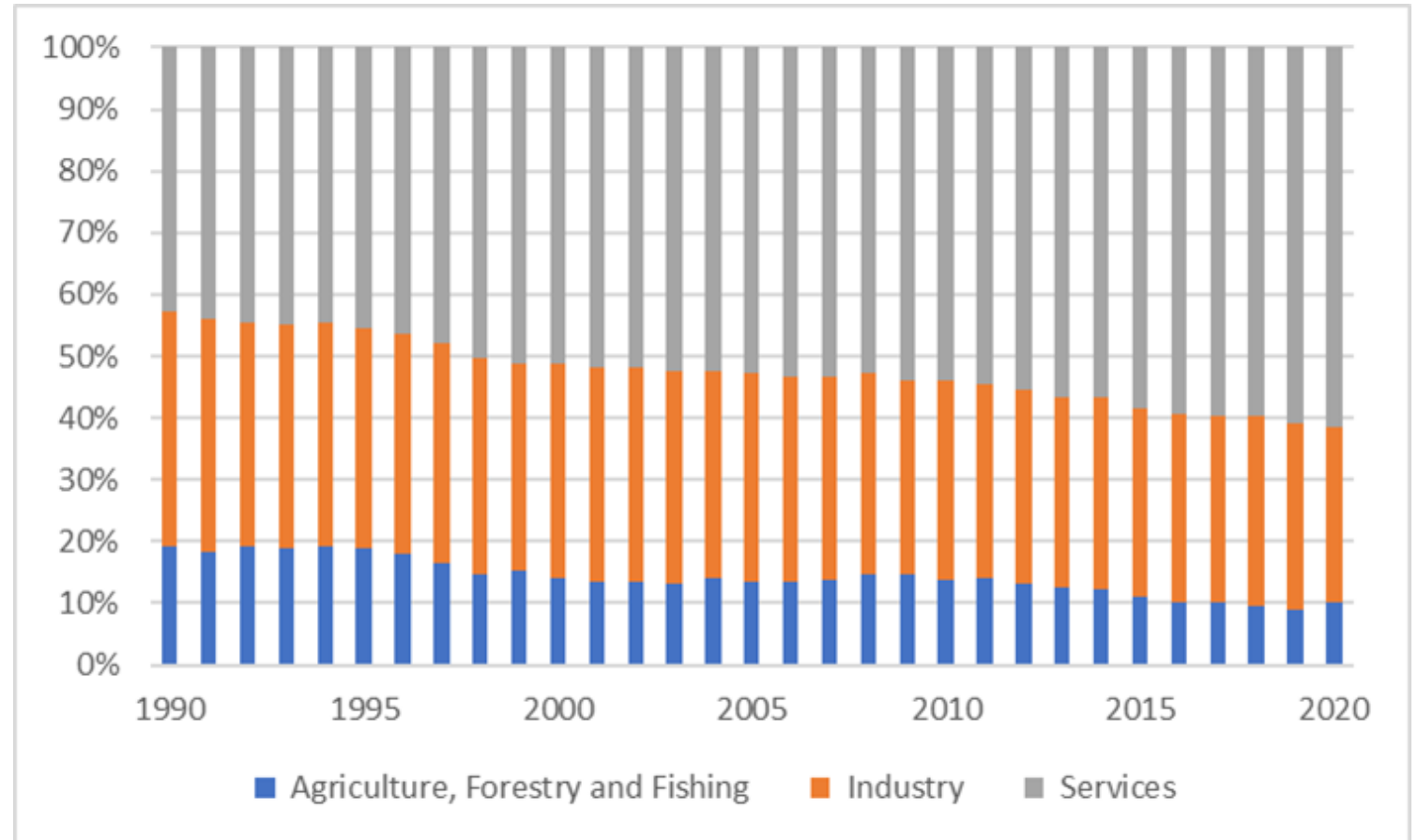


Structural change

2019: agriculture share down to 9%

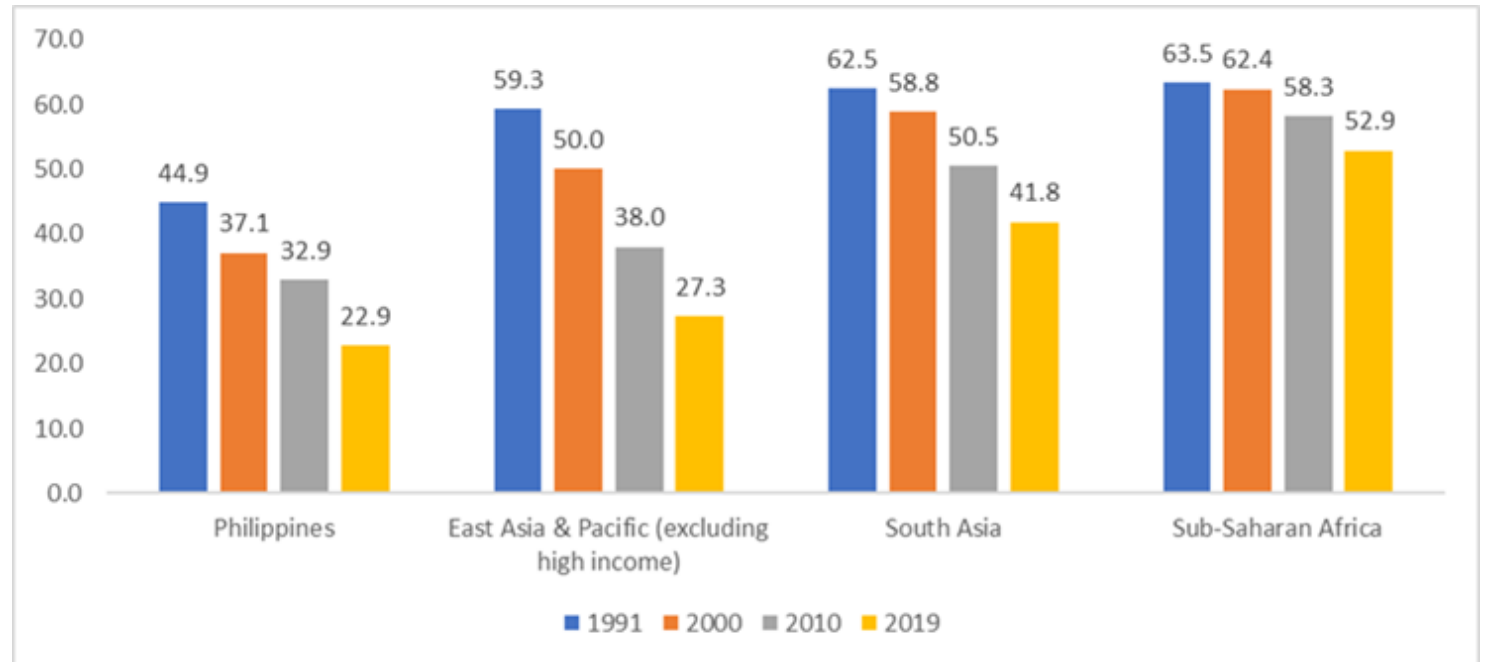
Even back in 1990: agriculture already had the lowest share in GDP

By 2020, the share of services had gone up to 61%.



Structural change

From 1991 to 2019, agriculture employment share shed 22 percentage points, similar to the decline in South Asia (21 percentage points), less than EAP (32 percentage points)

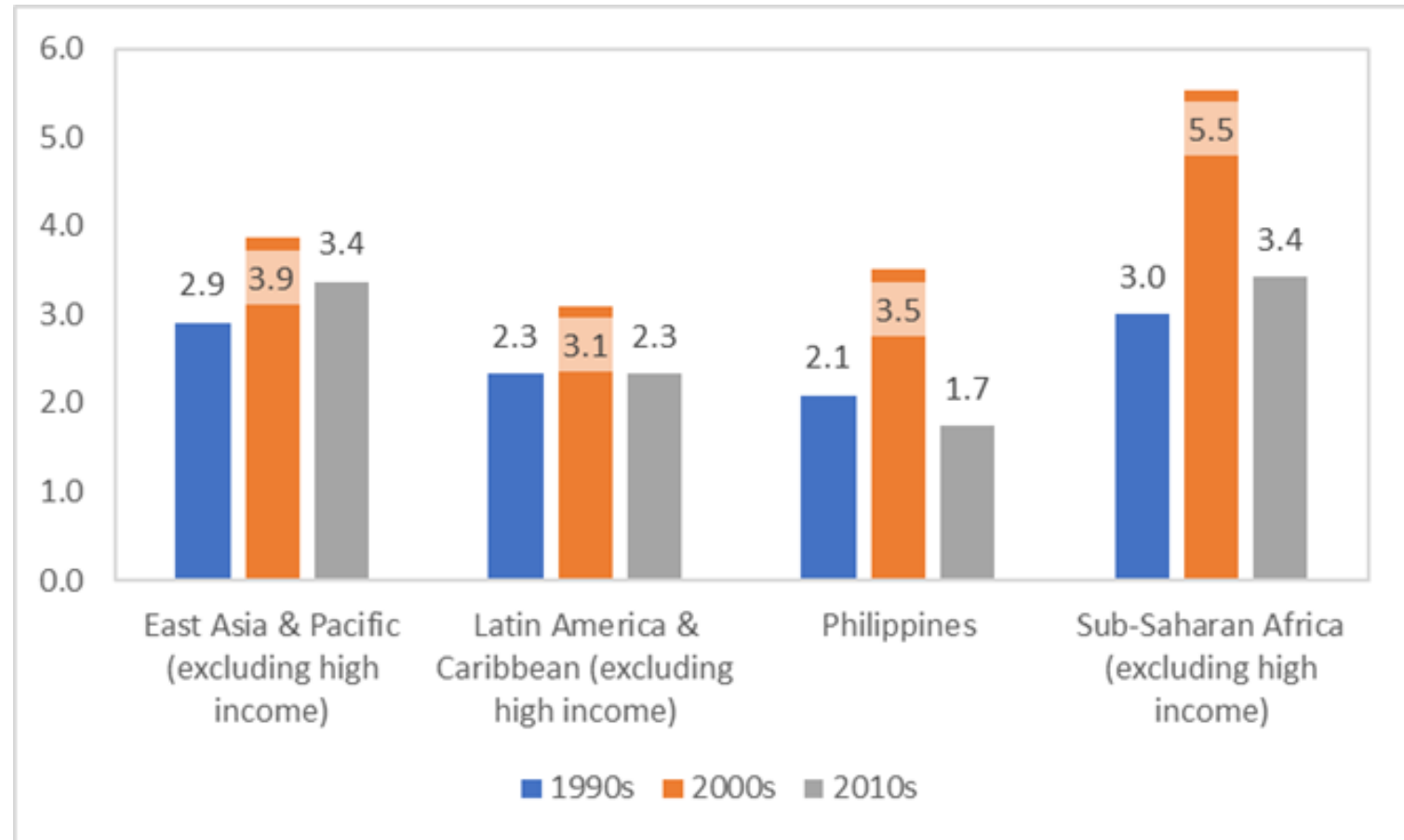


Growth of agricultural GVA

Growth rate similar pace in 1990s with other regions

Acceleration in 2000s, in pace with those of other countries, SSA being fastest – commodity price boom in the mid to late 2000s

Moderated in 2010s, but Philippines suffered a marked slowdown

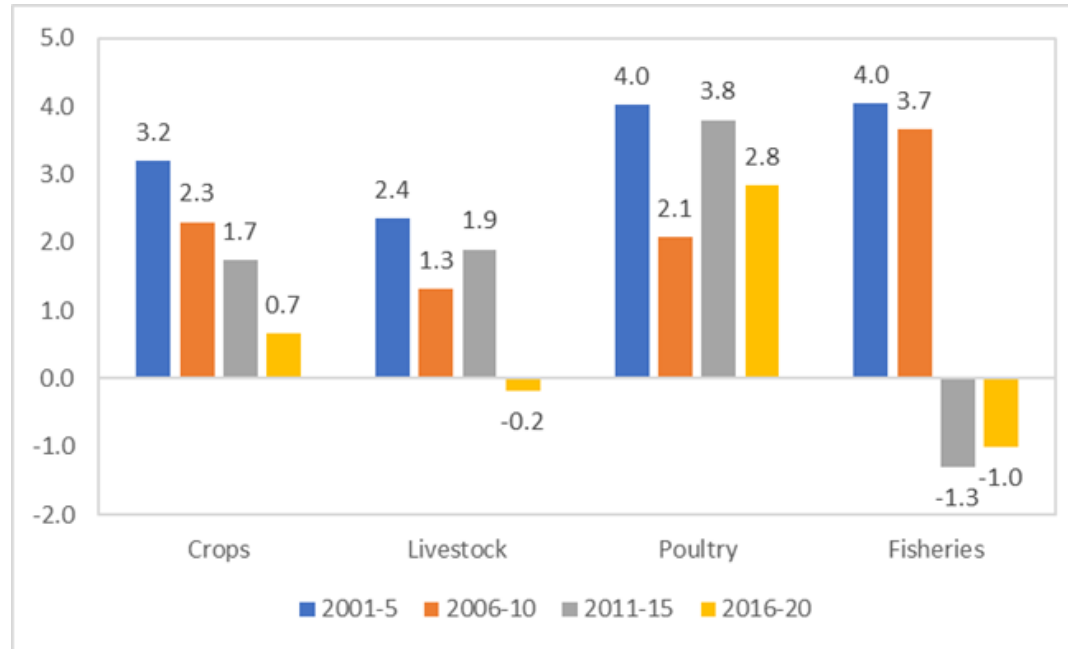


Composition of agriculture

Poultry strong driver of overall growth; fisheries was also a strong performer in the 2000s, but contracted throughout most of the 2010s.

Livestock was also a growth contributor but faltered in late 2010s owing to ASF

Growth in crops started out strong in the 2000s, but slowed down over the past two decades, holding back overall growth of the sector.

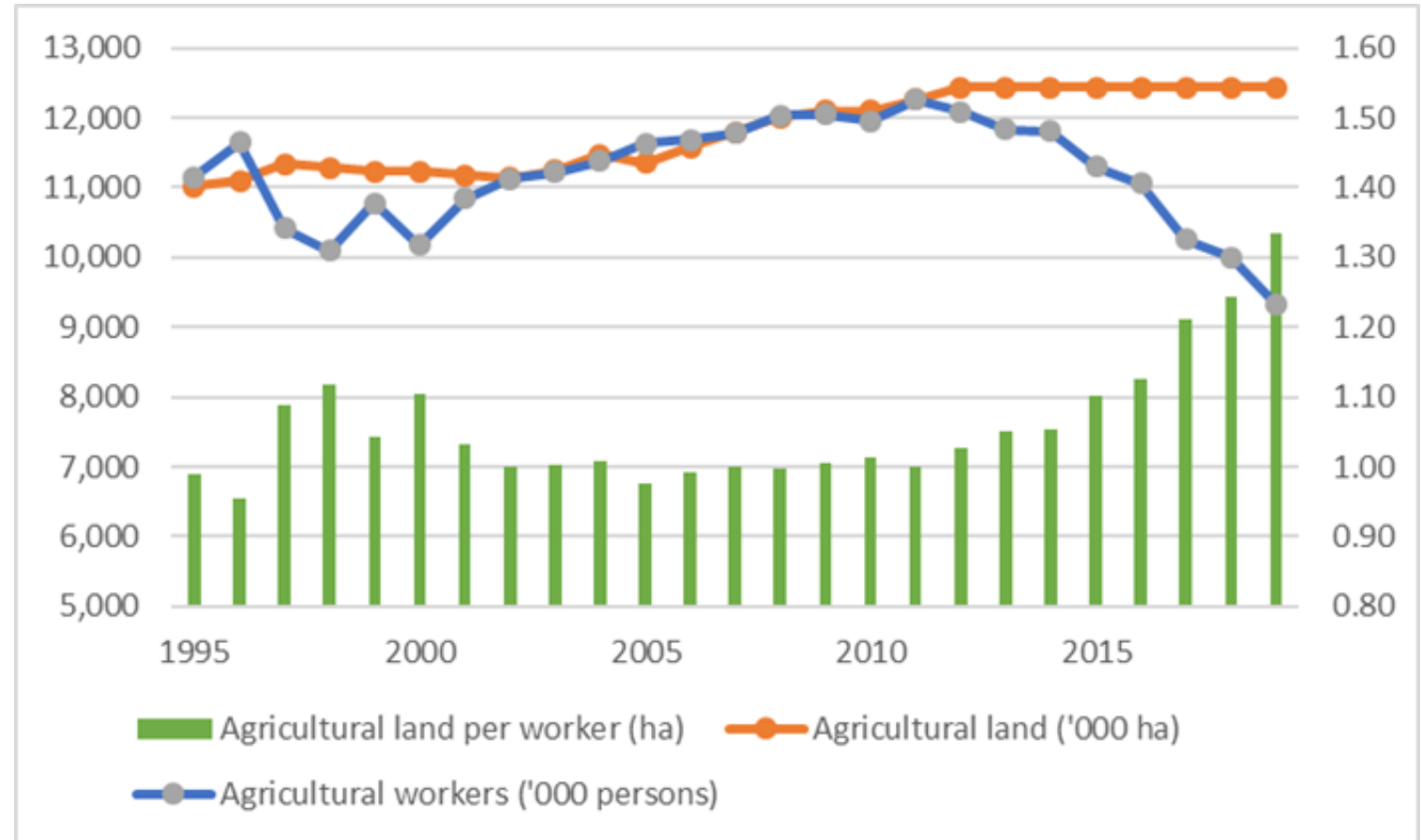


Composition of agriculture: 2020 (shares)

- Crops: 56%; livestock: 16%; poultry: 14%; fisheries 14%
- Among crops: most important are palay, corn, coconut, sugarcane, banana
- Among livestock: swine
- Among poultry: chicken (broiler, layer)
- Among fisheries: aquaculture of seaweeds, milkfish, tilapia; capture of tuna, roundscad

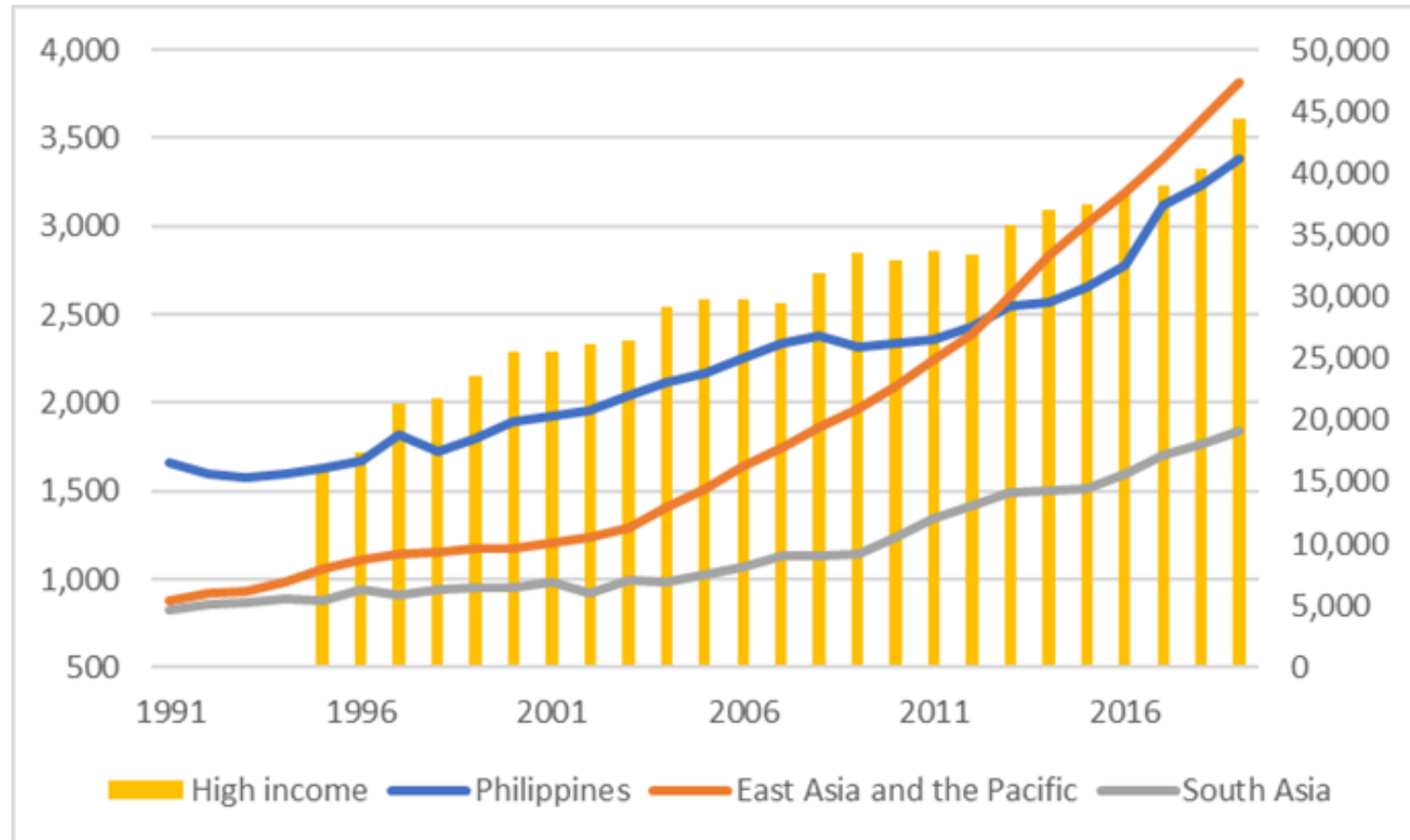
Factors of production

Among the factors of production, rising output in agriculture correlates with increasing capital stock.



Agricultural GVA per worker

Labor productivity in agriculture has been increasing, but at a slower pace than in other countries.



TFP trends

Growth of total factor productivity ranges is mediocre at best and negative at worst.

	1961-70	1971-80	1981-90	1991-00	2000-10	2011-16
Philippines	0.4	2.6	0.6	1.6	1.5	-0.3
Indonesia	2.1	1.4	0.5	1.1	3.0	1.9
Malaysia	2.9	2.5	3.1	1.6	2.5	0.7
Myanmar	-0.4	1.6	-0.3	3.7	5.5	-1.8
Thailand	1.0	2.4	-0.6	3.0	1.9	2.0
Viet Nam	0.0	1.6	1.6	1.8	2.8	2.0
Bangladesh	-0.1	0.6	-0.8	0.1	2.5	1.1
India	0.8	0.4	1.5	0.8	2.3	2.5
Pakistan	2.4	0.1	2.8	1.0	-0.1	0.4

Trade trends

Agricultural exports in the Philippines more than quadrupled since 1980, but its increase was dwarfed by the expansion of agricultural exports among its Southeast Asian neighbors.

	1980	1990	1997	2000	2010	2019
Indonesia						
Agricultural exports	4,774	4,154	8,548	7,764	35,957	42,953
Share in total exports	22	16	15	12	23	26
Philippines						
Agricultural exports	2,412	1,683	2,299	2,026	4,129	7,225
Share in total exports	42	21	9	5	8	10
Thailand						
Agricultural exports	3,712	7,786	13,021	12,220	35,136	42,982
Share in total exports	57	34	23	18	18	17
Vietnam						
Agricultural exports			3,063	3,954	16,835	29,943
Share in total exports			33	27	23	11

Past AFMA program reviews

Land use

The AFMA introduced an area-based approach to agricultural development planning.

Network of Protected Areas for Agricultural and Agro-Industrial Development (NPAAAD) - all irrigated areas, irrigable lands already covered by irrigation projects with firm funding commitments, agro-industrial croplands....

Strategic Agriculture and Fisheries Development Zones (SAFDZ) - within NPAAAD, centers where the development of agriculture and fisheries are catalyzed in an environmentally and socio-culturally sound manner.

Model Farms - within SAFDZs, suitable for economic scale production.

→ The pursuit of area-based development was constrained by the failure to properly delineate SAFDZs

Credit

AFMA reinforced an ongoing market-oriented reform in the agricultural credit system.

- Resulted in gradual shift in the sources of small farmer loans from informal to formal lenders.
- Nonetheless, financing of smallholder agriculture remains inadequate, with the financial system still suffering from the restrictions due to the agrarian reform program, stringent documentary requirements and risk avoidance of lenders
- In 2018 and 2019, the government funded large “easy access” credit programs, representing deviations from market-determined interest rates’ insurance premiums were 100-percent subsidized for small farmers (cultivating not more than 1.5 ha) in geo-critical hazard areas

Information and marketing support

The implementation of AFMA's marketing support provisions remains incomplete.

AFMA provides for National Marketing Assistance Program (NMAP) under the Agribusiness Market Assistance Service (AMAS); DA to set up National Information Network (NIN), an information network that links all offices and levels of the department with various research institutions and local end-users, providing easy access to information and marketing services related to agriculture and fisheries. The NIN shall be established down to the municipal level.

- AMAS has been established, but its budget is far below what is needed to fulfill its mandate
- Duplication with marketing service in banner programs
- NMAP is yet to be established, rendering the marketing strategies of DA fragmented and incomplete

Other provisions

- Product standards for agriculture and fishery products are available and adopted voluntarily.
- Rural nonfarm employment initiatives under AFMA have not taken off.
- Trade and fiscal incentives under AFMA mostly benefit large enterprises.

Key findings

Was agriculture and fisheries in Philippines successfully modernized? – Progress made, but far from “modernized”. With business as usual – will not be modernized in the short to medium term

What is needed:

- Abandon elements of traditional industrial policy inconsistent with the market approach
- Phase out producer support in the form of elevated price policies in favor of expenditure programs
- Expenditure programs based on distortionary subsidies should be terminated to give way to funding a modern industrial policy for the agri-food system
- Apply area-based, bottom-up planning in determining strategic interventions to meet the needs of farmers and rural enterprise along the value chain
- Adopt a results-based management approach to the AFMP, with implementation monitored by a Program Benefit Monitoring and Evaluation System (PBMES).



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