

The
'NEW THINKING'
 for Moving
Agriculture Forward

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State of Philippine Agriculture

Year	Average Agri Growth Rate (%)
2018	0.56
2017	3.95
2016	-1.41
2015	0.11
2014	1.83

Source: PSA

Major Challenges in Agriculture

- Low farm productivity
- Lack of labor
- Unaffordable and inaccessible credit
- Limited use of technology
- Limited farmland diversification
- Undeveloped agri-manufacturing & export
- Severe deforestation/land degradation
- Aging farmers & fisherfolk
- Climate change



25% or **10.3 M** - Employed in agriculture sector out of 42.8 M country's total labor force



9% - Agriculture sector share to the country's GDP



30% - Rural poverty incidence



25% - Agro-processing and related activities share to the country's GDP

New Thinking for Philippine Agriculture

Vision:

A food-secure Philippines with prosperous farmers and fisherfolk.

Mission:

To collectively empower farmers and fisherfolk and the private sector to increase agricultural productivity and profitability, taking into account sustainability and resilience.*

* - this considers competitiveness

Considerations:

- The PSA-Family Income and Expenditure Survey shows that a typical **Filipino farmer only earns an average of P100,000/year**, a little **below the poverty line of P108,800 in 2015**.
- We can **double the incomes** of farmers and fisherfolk in five years thru value chain approach and agripreneurship.
- Their sources of income should include **off-farm** and **non-farm activities** including agri-tourism.

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Global Food Security Index (2018)

Rank	Country	Score/100
1	Singapore	85.9
40	Malaysia	68.1
54	Thailand	58.9
62	Vietnam	56.0
65	Indonesia	54.8
70	Philippines	51.5

Source: The Economist Intelligent Unit

Singapore imports nearly all (over 90%) the food it consumes

Malaysia imports about 1/3 of its total rice requirements

Thailand & Vietnam are two of the biggest rice exporters in the world

Philippines & Indonesia are big rice importers

- **Food security is a better goal** compared to food self-sufficiency.
- What counts is that people have the ability to obtain food – **prices and incomes are key**.

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Daily Nominal Wage Rates of Farm Workers (2017)

Region	Php/day	Region	Php/day
Philippines	280.37		
CAR	267.30	Central Visayas	236.97
Ilocos Region	310.82	Eastern Visayas	251.98
Cagayan Valley	280.16	Zam Peninsula	238.30
Central Luzon	356.71	Northern Mindanao	247.39
CALABARZON	370.14	Davao Region	267.46
MIMAROPA	296.11	SOCCKSARGEN	246.55
Bicol Region	267.88	Caraga	314.19
Western Visayas	272.80	ARMM	250.92

Source: PSA

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8 Paradigms to Operationalize the New Thinking for Agriculture



**Modernization
of agriculture**



**Industrialization
of agriculture**



**Promotion
of exports**



**Farm
consolidation**



**Roadmap
development**



**Infrastructure
development**



**Higher budget &
investments**



**Legislative
support**

1. Modernization of Agriculture

- The use of **modern technology must also cover all commodities**, including those with export potential in processed or value-added form.
- Affordable and **accessible credit***.
- **Crop diversification** is a must. Majority or 80% of the country's farmland are planted to only three crops: rice, corn, and coconut.
- Modernizing agriculture also entails **attracting more Filipino youth** into farming.
- **Agripreneurship** should be encouraged. Farming, aquaculture and marine production should be treated as business enterprises.



* - also for Industrialization.

1.a. Rice Tariffication Law (RA 11203)

- It will pursue the modernization of the country's rice industry and make our **farmers competitive** with their ASEAN counterparts.
- Importers will pay a tariff of
 - 35% from ASEAN countries
 - 50% from non-ASEAN countriesraising funds for the **Rice Competitiveness Enhancement Program (RCEP)**.



RCEP allocates **P10 billion** per year from 2019 to 2024

P5 billion - Mechanization

P1 billion - Credit support

P3 billion - High-yielding seeds

P1 billion - Capacity development of farmers



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1.b. Where are We in Terms of Agri 4.0?

- Currently, **we are at the initial phase** in terms of agri-technology involvement.
- There are some initiatives (hybrids, use of drone, and solar-powered irrigation) being done already which are **slowly taking shape**.
- However, these Agri 4.0 initiatives **must be implemented on a larger scale** for its impact to be felt by our farmers.

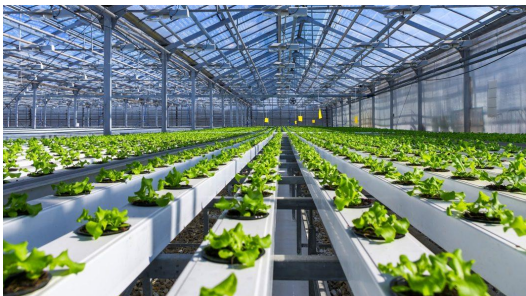


3 Approaches in “Technologizing” Agri 4.0:

1. Produce differently using new techniques
2. Use new technologies to bring food production to consumers
3. Incorporate cross-industry technologies and applications

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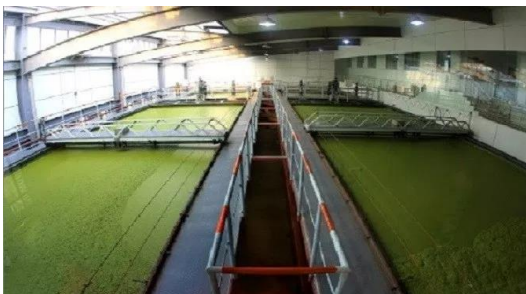
1.c. Produce Differently Using New Techniques



Hydroponics



Desert Agriculture



Algae feedstock



Sustainable Packaging: Bioplastics

1.d. Use New Technologies to Bring Food Production to Consumers



Vertical & Urban Farming



Genetic Modification



Cultured Meats



3D Food Printing Technology

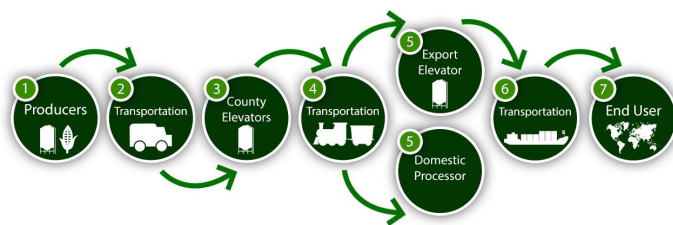
1.e. Incorporate Cross-industry Technologies & Applications



Drone technology



Nanotechnology & Precision Agri



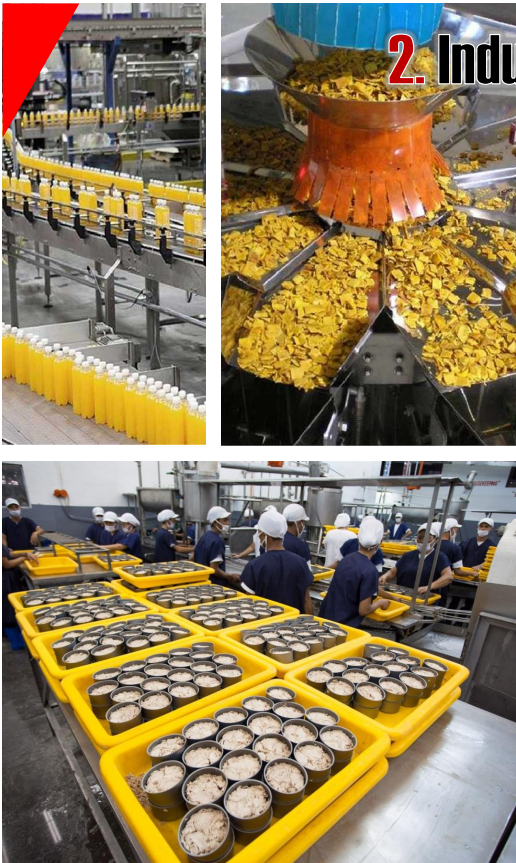
Blockchain



Food Sharing & Crowdfarming

1.f. Creating a Platform for Disruptive Technology Adoption

- The Philippines must form a consortium composed of
 - **DOST-PCAARRD**
 - **DA-BAR**
 - **CHED**
 - in tandem with **private sector**to lead in catalyzing and unifying agricultural research and development (ARD) including scaling up so disruptive technology can take root in the agriculture sector.
- The consortium can initially sound off the need to:
 - conduct new **research for development** (R4D),
 - push for **legislation of creating a platform** for disruptive technology adoption, and
 - enter into **strategic partnerships** to achieve their goals.



2. Industrialization of Agriculture

- Agriculture must be **treated as an industry** throughout the entire farm, fishery and food chain.
- **Agripreneurship** is key.
- Increasing productivity must be coupled with increasing incomes through **value-adding, processing, manufacturing**, and developing direct markets for both raw and processed farm and fishery products.
- The **private sector**, should be encouraged in setting up more agri-based industries and developing markets by providing them **appropriate tax incentives**.



2.a. Industrialization of Agriculture



- “**Big brother-small brother**” **partnerships** should be pursued and encouraged between large agri-industrial firms and conglomerates, and agri-fishery and rural-based cooperatives and federations.
- The support of SUCs near farmers’ cooperatives and federations should be tapped for **R&D, technical and training** needs.
- Foster the formation of social enterprises, or those that would **involve more of the marginalized** in the agricultural value chain.

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3. Promotion of Exports

- **DA in partnership with the DTI** should employ a **systematic and long-term strategy** in developing and promoting exports of raw and processed agricultural products.
- The **private sector and research institutions**, should take the lead in developing and promoting agricultural products.
- To date, the Philippines **exports only 2 commodities**—bananas and coconut products—that earn at least \$1 B per year, paling in comparison with Thailand (13), Vietnam (7) and Indonesia (5).
- **Blockchain technology** can be utilized for export of agri-products.





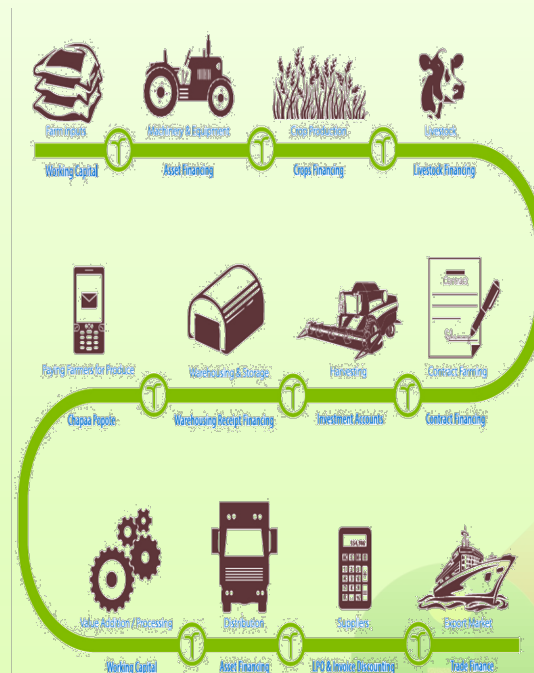
4. Farm Consolidation

- The government must **promote farm consolidation** to achieve economies of scale thru block farming, trust farming, contract farming, and corporative farming.
- Said schemes will make farming more efficient, **reducing production costs** and increasing farm productivity and incomes.
- Upon consolidation, the DA and other concerned **agencies could serve** the 'consolidated' or organized farmers groups **easier and better**.
- Consolidated farms can employ the **laser guided land leveling and grading** for precision farming.
- **Collective action** is necessary.

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5. Roadmap Development

- **DA should take the lead** in developing, implementing and updating Commodity and Industry Roadmaps, **in partnership with the private sector** as they have more access to export markets and funding for R&D.
- The industry roadmaps will serve as **guide for government and the DA** in terms of:
 - annual budget requests,
 - monitoring and evaluation of program goals annually, and
 - ensuring that efforts will increase the incomes of small farmers and fisherfolk.



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6. Infrastructure Development

- “**Build, Build, Build**” program is also a must **for agriculture**. Infrastructure development and logistics to improve their linkages to the urban/domestic and export markets.
- Private sector should be encouraged to engage in “**build-and-transfer**” schemes to accelerate the development of national irrigation systems.
- More **solar-powered irrigation systems** should also be built all over the country including **rainwater harvesting systems**.
- **Massive public and private investments** must be provided for rainwater harvesting and flood mitigation, food terminal markets, farm-to-market roads, municipal fish ports, and airports.



7. Higher Budget and Investments for Agriculture

- Government and the private sector must provide **sustained high budget and investments** to grow, develop, modernize and industrialize Philippine agriculture to:
 - contribute to economic development,
 - earn more export revenues,
 - create more employment opportunities,
 - increase farmers’ and fisherfolk’s incomes, and
 - reduce abject poverty.
- New ideas, new programs and projects are needed to **innovate Philippine agriculture**.





8. Legislative Support

- Philippine Senate and House of Representatives should **provide strong policy support** through appropriate legislative reforms.
- Legislate **more pro-poor laws** like:
 - Sagip Saka Act or RA 11321
 - Farmers and Fisherfolk Enterprise Development Program
 - Rice Tariffication Law or RA 11203
- President Duterte can also **certify urgent legislative measures** for agricultural and rural development.

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Let us continue to build on the foundations that will empower small Filipino farmers and fisherfolk to be more productive and innovative, and at least double their incomes in the next five years - thus lifting millions of them from poverty. — Dr. William D. Dar



Produce.

Process.

Prosper.

**Angat Lahat sa Agrikultura at Pangangisda
(ALAP)**

Thank you!

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