

Philippine Agriculture (PA) 2020

**A Strategic Plan for Poverty Reduction,
Food Security, Competitiveness,
Sustainability, and Justice and Peace**

National Academy of Science and Technology

Department of Science and Technology



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II. What is Philippine Agriculture 2020?

- ❖ A medium term strategic plan articulated by the science community for the modernization and development of the agriculture and natural resources sector
- ❖ Outcome of a series of consultations and workshops convened by the National Academy of Science and Technology (NAST) involving scientists, farmers, entrepreneurs, non-government workers, managers and industry stakeholders



II. What is Philippine Agriculture 2020?

Vision

- ❖ *Robust and vibrant agricultural and natural resources production systems and ecosystems services that improve and sustain human well-being in the Philippines*
- ❖ Agricultural modernization as a significant contributor to national goals of reducing poverty, attaining food security, achieving competitiveness and sustainability and promoting justice and peace



- ❖ UN Millennium Ecosystems Assessment (MEA) posits a strong linkage between ecosystems and human well-being
- ❖ *Ecosystems are dynamic complexes of plant, animal and microorganism communities and the non-living environment interacting as functional units*



- ❖ People are integral parts of ecosystems; human activities affect ecosystems; ecosystems in turn influence/determine human activities
- ❖ Agriculture embedded in three (3) overlapping/interacting systems
 - Agricultural systems
 - Natural resources systems
 - Social systems



- ❖ Multiple functions of agriculture
- ❖ Beyond its economic and material contributions it is connected to the distribution of social and political power and to the culture and values that animate society



IV. Philosophy, Pillars and Enabling Strategies

Pillars of Modernization

- ❖ Organizing and managing agriculture as a business
- ❖ Changing the social structure through asset reform
- ❖ Nurturing values respecting nature and community



Pillars of Modernization (3)

- ❖ Organizing and Managing Agriculture as a Business
 - Transform small farmers into entrepreneurs
 - Overcome problems of scale through concentration in key production areas, through industry-wide clustering, strengthening of cooperatives and farmers organizations



IV. Philosophy, Pillars and Enabling Strategies

Changing the Social Structure through Asset Reform

- ❖ Poverty more severe in the countryside
- ❖ Empowerment of farmers and fishers who work the land, the forests and waters of the country
- ❖ Asset reform – transfer of property or usufruct rights to assets to farmers and fishers
- ❖ Stimulate investments among owners/rights holders to make the assets productive and sustainable



IV. Philosophy, Pillars and Enabling Strategies

Nurturing Values Respecting Nature and Community

- ❖ Perspective of agriculture as a way of life
- ❖ Not only material improvement and power changes but also preserve what is good in the culture
- ❖ Love for nature; enjoying the land and waters without destroying them, preserving for future generations
- ❖ *Bringing soul to agriculture* (Fr. Francis Lucas, ANGOC, Catholic Media Network)



IV. Philosophy, Pillars and Enabling Strategies

- ❖ Investments
- ❖ Technology Development
- ❖ Governance



IV. Philosophy, Pillars and Enabling Strategies

Broad Enabling Strategies (3)

❖ Investments

- Physical infrastructure in countryside i.e. irrigation and drainage; farm-to-market roads; postharvest facilities; transport system; information system
- Rural credit and insurance
- Human capital
- Institutions



❖ Technology Development

- Innovations to raise yields, reduce costs, improve product quality, reduce losses and conserve environment
- Specific technology modernization requirements treated at length in the 15 industry cluster strategic plans



IV. Philosophy, Pillars and Enabling Strategies

Broad Enabling Strategies (3)

- ❖ Technology Development (continuation)
 - Primary production – variety development; multiple cropping and diversification; IPM; soil nutrient management; sustainable agriculture; organic farming
 - Agricultural mechanization and water resources management



IV. Philosophy, Pillars and Enabling Strategies

Broad Enabling Strategies (3)

- ❖ Technology Development (continuation)
 - Agricultural biotechnology
 - Socio-economics research and policy and advocacy



IV. Philosophy, Pillars and Enabling Strategies

Broad Enabling Strategies (3)

❖ Governance

- “Binding force” among enabling strategies
- Laws, policies, rules and regulations to make public institutions work and to define space within which the private sector has to operate
- Broad participation and consent of stakeholders



V. Industry Clusters Approach

- ❖ Grouping of key and support industries, infrastructure and institutions that are inter-linked and interdependent
- ❖ Core industries – farmers/producers; assemblers/traders; primacy and secondary processes
- ❖ Supplier industries – raw materials; processing supplies; packages; machinery; equipment



VII. Major Observations and Conclusions

All's not well in agriculture

- ❖ Anemic growth rate, except fisheries
- ❖ Rural poverty still very high
- ❖ Increasing trade deficit in agriculture
 - Declining competitiveness
- ❖ Continuing degradation of environment
 - Water, soils, biodiversity losses



VII. Major Observations and Conclusions

Poverty Incidence in the ASEAN

Country	Incidence (%)	Year
Malaysia	3.6	2007
Thailand	8.5	2008
Indonesia	14.2	2009
Vietnam	14.5	2008
Philippines	26.5	2009



VII. Major Observations and Conclusions

Poverty Incidence in the Philippines (2006)

	Incidence (%)
Rural	37.84
Urban	14.32
National Average	26.40



VII. Major Observations and Conclusions

GDP Growth Rate of ASEAN, 1970-2009 (%)

Country	Growth (%)
Vietnam	6.78
Malaysia	6.40
Indonesia	6.03
Thailand	6.03
Philippines	3.79



VII. Major Observations and Conclusions

Growth of GVA from Agriculture, 1989-2009

Crops	2.42%
Livestock	3.22%
Fisheries ^a	3.68%
Forestry	Negative
GDP	3.61%

^aFisheries 5.70% (2000-2009)



VII. Major Observations and Conclusions

Share of Agriculture in Total Trade, Million US\$

Item	2005	2009
Agric Exports	\$2,691	\$3,889
Agric Imports	\$3,976	\$7,685
Agric Deficit	<i>-\$1,285</i>	<i>-\$3,796</i>
% of Agric Deficit to TOTAL Trade Deficit	16%	50%



VII. Major Observations and Conclusions

But we have the natural resources, people, technology and institutions to do much better

- ❖ Achievable growth rate of 6-7% p.a. vs current 3% p.a.
- ❖ Favorable climate; 2400 mm rainfall p.a.
- ❖ Public RDE institutions in place
 - ❖ Enlightened policies and laws on agrarian reform; CBFMAs; ancestral domains; environment –friendly laws
 - ❖ Organized private sector and NGOs



VII. Major Observations and Conclusions

Greater part of the solution is the further but sustainable intensification of agriculture

- ❖ Higher inputs for higher yields
- ❖ Raising cropping intensity
- ❖ More irrigation systems
- ❖ Less postharvest losses
- ❖ Greater value adding/processing
- ❖ Sustainable technologies – pest resistant HYVs, IPM, INM, zero tillage



VII. Major Observations and Conclusions

Key land use targets

- ❖ Rehabilitation of 1.5 million ha irrigation system
- ❖ Construction of 500,000 ha new irrigation
- ❖ Establishment of 700,000 ha forest tree plantations
- ❖ 1 million ha second growth forests under supervised sustainable forest management



VII. Major Observations and Conclusions

Key land use targets (continuation)

- ❖ Intensive management of existing fishponds (no further expansion)
- ❖ Expansion of seaweed production from 59,000 to 255,000 ha
- ❖ Establishment of more marine protected areas to replenish dwindling fish stocks
- ❖ Establishment of more marine parks



VII. Major Observations and Conclusions

Level of public appropriations for agriculture has ceased to be a key limiting factor

- ❖ P18-20 billion up to 2006
- ❖ P54 billion in 2009
- ❖ P38 billion in 2011
- ❖ Optimistic pronouncements from Pres. B. Aquino
- ❖ **Recommend P50-60 billion p.a. DA budget**



VII. Major Observations and Conclusions

Major challenge is GOVERNANCE

Medium Term Recommendations

- ❖ Comprehensive Land Use Planning
- ❖ Consolidation of Lands Administration functions into a Lands Administration Authority under DENR
- ❖ Reform of the National Food Authority
- ❖ Strengthening of extension and its articulation with research



VII. Major Observations and Conclusions

Medium Term Recommendations

Major challenge is GOVERNANCE (continuation)

- ❖ Reform of the National Irrigation Administration
- ❖ Convergence of DA, DAR, DENR and private sector initiatives
- ❖ Management of Department of Agriculture itself



VII. Major Observations and Conclusions

Short Term, Immediate Recommendations

Strengthening of agriculture extension and its articulation with research

- ❖ Resurrect old BAEx from ATI
- ❖ NO to re-centralization of extension
- ❖ Instead, more LGU executive training, support to LGUs and resource sharing
- ❖ Creation and funding of dedicated RDE units in SUCs



VII. Major Observations and Conclusions

Short Term, Immediate Recommendations

Management of the Department of Agriculture

- ❖ Emancipation of the bureaus (BPI, BAI, BSWM, BAS, BFAR)
 - Provide adequate operating funds
 - Follow model of PhilRice and Phil Carabao Center
- ❖ Resolve Fisheries governance issue
 - Appoint USec for Fisheries



VII. Major Observations and Conclusions

Short Term, Immediate Recommendations

Management of the Department of Agriculture

- ❖ Align appropriations with added value and potential of subsectors
 - Rice overfunded(18% of GVA but 50-60% budget)
 - Coconut and Fisheries grossly underfunded
- ❖ **Phase out physical procurement and distribution of farm inputs; redirect to RDE, credit, insurance, rural infrastructure**

VII. Major Observations and Conclusions

Short Term, Immediate Recommendations

Reform of the National Irrigation Administration

- ❖ Irrigation and drainage most valuable input
- ❖ P10-12 billion p.a. investments (1/3 of DA budget)
- ❖ Huge upside potential – 1.6 million ha still to be developed (51% easily irrigable area) and poor irrigation efficiency



VII. Major Observations and Conclusions

Short Term, Immediate Recommendations

Reform of the National Irrigation Administration (continuation)

- ❖ Recommend External Program and Management Review of NIA performance
- ❖ **Devolve repair maintenance and collection and retention of water fees to Irrigators Associations**
- ❖ Amend NIA charter; conversion from government corporation to Bureau of Irrigation Development under DA



VII. Major Observations and Conclusions

Short Term, Immediate Recommendations

Convergence of DA, DENR, DAR and private sector initiatives in countryside

- ❖ Convergence initiated by former DAR secretary Horacio Morales, on-going
- ❖ Professional management and technical support to cooperatives, ARCs, IAs, farmers organization and NGOs



VII. Major Observations and Conclusions

Short Term, Immediate Recommendations

Convergence of DA, DENR, DAR and private sector initiatives in countryside (continuation)

- ❖ One Town-One Product platform of DTI
 - **E.g. Coffee Towns**
 - 30,000 tons imports
 - 40 towns each with 1,000 ha of coffee
 - LGU commitment
 - Nestle buying stations
 - Dedicated coffee research units in Cavite State, Benguet State, USM



VII. Major Observations and Conclusions

Short Term, Immediate Recommendations

Expand access to affordable credit and insurance to small farmers and fisher folks

- ❖ Share of bank lending to agriculture down to 2.5% from 9.5% in the 1970s
- ❖ Loans for primary production only 0.9%
- ❖ Only 24% of borrowing needs of small farmers met



VII. Major Observations and Conclusions

Short Term, Immediate Recommendations

Expand access to affordable credit and insurance to small farmers and fisher folks (continuation)

- ❖ Reduce interest rates to single digits; bundle insurance with credit
- ❖ **Create a Small Farmers' Fund with 1-2% interest**; source from external loans and grants – e.g. yen loans
- ❖ Increase budget of PCIC to partly subsidize insurance premiums



VIII. Credits

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