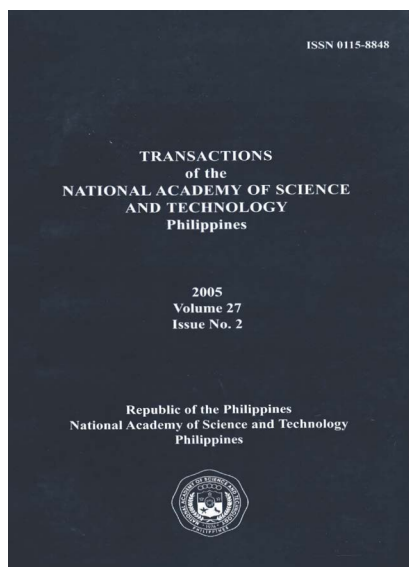


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## Philippine Agriculture 2020

Academician. Emil Q. Javier, Ph.D.

Vice President, National Academy of Science and Technology

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## **PHILIPPINE AGRICULTURE 2020**

**Academician Emil Q. Javier, Ph.D.**

Vice President, National Academy of Science and Technology

NAST is the country's highest scientific recognition and advisory body. It is composed of about 50 members divided into six disciplines, which takes turns in organizing the annual scientific meeting and so this year is the turn of agriculture. In the exercise of NAST's advisory function, the agricultural sciences division decided to take a crack at articulating a strategic long-term plan for agriculture. Over the years we have had four- to six-year medium-term plans of successive national administrations but as far as I can recall we have never had a longer-term strategic plan. Clearly, we are changing secretaries in agriculture so fast that I have lost count. I think we have had eleven or twelve during the last eighteen years. One is stepping down by Friday and we have another secretary by Friday. Clearly, we need a long-term vision for stability and continuity.

The monumental task of putting this strategic plan was assigned by the National Academy to a writing panel whose job it was to look at previous plans of NEDA, the plans of various departments and agencies, and the medium-term plan of the GMA administration, and then harvest ideas from knowledgeable people and stakeholders and put them together into what is now PA 2020. The PA 2020 document will consist of the Executive Summary, the main report and 14 volumes of industry cluster of strategic plans, and a number of stand alone contributions. At present, only the Executive Summary is available to the general public while only the panelists and moderators have the rest of the documents.

Actually PA 2020 is a huge collective effort involving the staff of three departments (Department of Science and Technology (DOST), Department of Agriculture (DA) and Department of Environment and Natural Resources (DENR)) and their agencies, the academe, farmers, and agribusiness representatives, NGOs and foundations.

### **Vision for Agriculture in PA 2020**

What is the vision for agriculture in PA 2020? The vision is of robust and vibrant agricultural and natural resources production systems and ecosystems services that improve and sustain human well-being in the Philippines. This is a collective vision of well meaning Filipinos. Many of them are here and they are academics, teachers, specialists, administrators, farmers, and agribusiness representatives who have something in common: their love for the land. PA 2020 is at the same time a message of hope and confidence which I know you'll realize is most timely in the current atmosphere of national despair and uncertainty.

If there's one thing we all seem to agree, all is not well in agriculture with (1) anemic agriculture performance due to failed policies; (2) inadequate infrastructure; (3) declining competitiveness; (4) deteriorating environment; (5) continuing food imports; and (6) pervasive rural poverty. But if you look at agriculture in the last 20 or 30 years, and we try to benchmark ourselves with our neighbors in Asia, we find that we pale in comparison in almost all counts. The bottom line is: poverty continues to be pervasive in the countryside. We are facing formidable challenges, our population is growing at 2.36% per annum adding a million Filipinos every year. It is a population growth we regrettably have to anticipate to continue in foreseeable future in the absence of a strong family planning program.

Globalization is upon us and tariff rates in agriculture will go down to five percent across the board and we must shape up to compete or to be flooded under by imports particularly from China. But we refuse to accept this state of affairs because we know we can do better. We know we can do better because we have the people and the basic institutions are in place. We have the natural resources, technologies are at hand or forthcoming but most importantly we have a grand vision and an imaginative plan to get there.

### **PA 2020 Targets**

What do we expect by 2020 in agriculture? What are our broad targets? Our agriculture grew at the anemic rate of 2.5% during 1980-2004. That is just barely keeping up with the population growth rate. We know we could do much better than that. Our plan is to grow at the rate of 7%. Mind you, although we had a 2.5% growth rate over the past 25 years, during the last 3 or 4 years, we were growing at 4.5%, so 7% is a reasonable and realizable target. If we do that, then the growth value added from agriculture will more than double from PhP 206 to PhP 422 billion, we will generate for

more Filipinos from 11 to 23 million and the export receipts will rise from US\$1.9 billion to US\$9.4 billion so their gross value added will be more than double, the same with employment and a four-fold increase in export receipts over this 15-year period. During the same period, our population will grow from 84 million to 105 million, or a 25% increase in population.

### **Conceptual Framework**

In formulating PA 2020, we adopted for our conceptual framework the Millennium Ecosystems Assessment Framework that connects human well-being with integrity of ecosystems and their services. This came out of a document of March of this year from a huge World Bank and UN global study involving 13,000 experts from 95 countries over a four-year period. This framework emphasizes the linkage between human well-being and ecosystems. But it has a very important basis which is that the action of people results not just from their concerns about human well-being but also considerations of the intrinsic value of species and ecosystems in themselves irrespective of their utility to someone else. I think it is very important to note because that is the inspiration for the third pillar of PA 2020.

In practical terms, this framework says that human well-being is influenced by three subsystems: the systems that deal with agriculture, the systems that deal with environment and natural resources, and the social environment. It is, in this sense, that PA 2020 departs from AFMA—the legislation for the modernization of agriculture and fisheries, because AFMA rightfully focuses on the agricultural systems but this framework says that the ultimate objective is human well-being. The attention to agriculture must be complemented by simultaneous attention to the ecosystems that support agriculture and social environment in which that system operates. Up to the 1970s, we had the old Department of Agriculture and Natural Resources (DANR) and for some reasons this was split up. This framework suggests that perhaps it is time to revisit the structure of the executive department and maybe the old DANR setup may have been correct after all.

The Millennium Ecosystem Framework defines human well-being in terms of access to basic materials for a good life, access to good health, good social relations, security, and freedom of choice and action. Thus, in a parallel manner, our plan translates human well-being into five national development goals. We are all familiar with this enumeration. We want to eradicate poverty and hunger, we want to be globally competitive, to be able to hold our own but we want to make sure that we attain these objectives not at the expense of the long-term sustainability of our

environment. We are familiar with the first four goals but the odd entry in this enumeration is justice and peace. Perhaps, we should begin wondering what justice and peace have to do with agriculture and natural resources. Justice and peace, which are very obvious development goals in the Philippine context, have a lot of impact on agriculture. Crops can be least in the midst of war. The grievances of the peasants and the fisherfolks about the unfairness of the distributions of benefits affect productivity and investments.

Having a grip on the vision and the course, there remains the practical matter of relating vision, goals, and objectives and relating objectives to targets, activities and measures of progress and in order to do that we adopted a logical frame, which is a simple systematic way of linking visions with activities and so forth and so on.

This is admittedly one of the methodological contributions and the problems of PA 2020. I mentioned already the fourteen industry cluster strategic plans and so our writers and panels must now conform their strategic plans into the logical frame and this is proving to be a very complicated task. First because all of us are doing it for the first time and second, the natural resources and ecosystems objectives are quite new to us and therefore more difficult to quantify. The bread and butter of PA 2020 rest in the strategic plans of the fourteen agro-industry clusters. Another point of departure of PA 2020 from AFMA and the previous NEDA plans is the amount of technical details in these documents compared with the NEDA plans. In other words, this macro numbers that I have mentioned in terms of targets will build up from these very detailed technical studies by panels representing the fourteen agro-industrial sectors.

This conceptual development framework is summarized in this graph (Figure 1).

### **The Philosophy, Pillars and Enabling Strategies of PA 2020**

The social philosophy that underlies PA 2020 is the awareness that agriculture is a way of life, that agriculture is also culture, and that the business of agriculture, the livelihood, is only a part, albeit a very significant part of its all-encompassing character as a way of life. This strategic plan rests on three pillars: organizing and managing agriculture as a business, directly alleviating poverty through asset reform, and nurturing the values of nature and community in our people.

The first pillar is the agribusiness model; the focus is on productivity, profitability, and competitiveness. The second pillar is about equity and

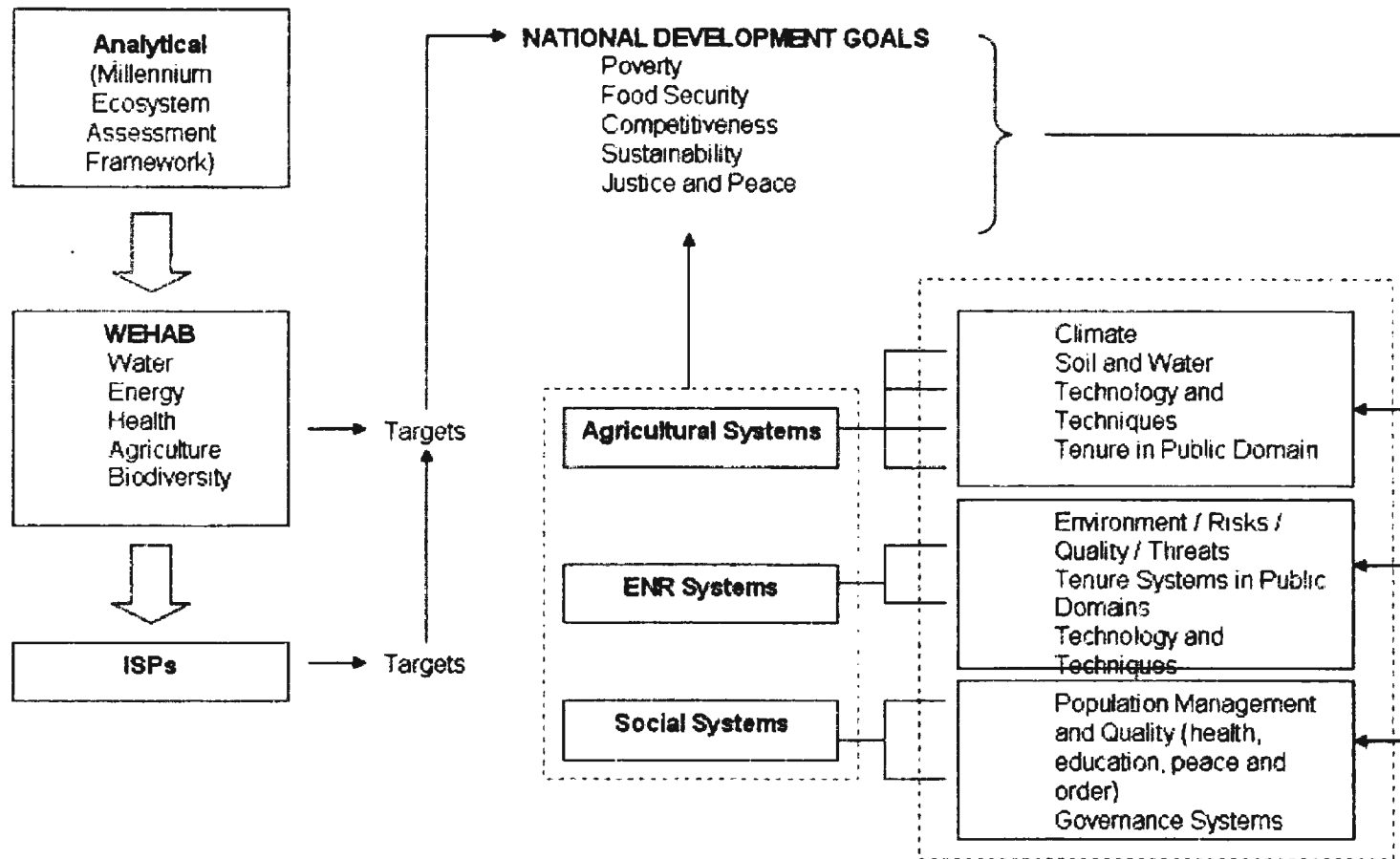


Figure 1. Conceptual development framework of Philippine Agriculture 2020.

income. The third pillar which reinforces the first two, are two aspects of the culture of agriculture which has to do with love and respect for nature in the sense of solidarity with our fellowmen. The first pillar organizing and managing agriculture as a business has four elements—making entrepreneurs out of subsistence farmers, improving the efficiency of the supply chain, transforming products and markets for higher value, and the clustering of industries to strengthen the linkages between primary producers, input suppliers, processors, markets, and so on.

After hearing Secretary Yap, we could see very clearly that this is the first and easily the most important pillar as far as the Department of Agriculture is concerned. As the Secretary mentioned, this agribusiness model of organizing and managing agriculture as a business requires a paradigm shift. Not only would the farmers themselves look beyond primary production but they have to make sure they have markets to bring the products. This will also require a paradigm shift in the Department of Agriculture itself, in the universities that conduct research on agriculture, and so on. The pillar on asset reform as a key instrument for reducing poverty is based on the fact that in the hierarchy of development goals clearly, reducing poverty is cardinal. What is poverty? It is the lack of access to income or lack of assets that generate income. Poverty largely is a rural phenomenon and land is the major asset and, therefore, a redistribution of assets is the most direct way of attacking poverty. Second, assets reform would hopefully stimulate investments by the rights holders themselves to make assets more productive.

### **Major Recommendations of PA 2020**

What are some of the major recommendations as far as this PA 2020 is concerned? In asset reform, you could look at asset reforms in the lowlands, uplands, coastal communities. As far as asset reform in the lowlands is concerned, we have two recommendations: we must accelerate the completion of the Comprehensive Agrarian Reform Program (CARP), the original coverage of 4.2 million of which 800,000 hectares are left. So we are saying, we have to move on, accelerate completion of the land reform program so that by 2013, the land transfer part of agrarian reform is completed.

But we know that land transfer is not sufficient, it is necessary but not sufficient condition to reducing poverty. The second recommendation is that the beneficiaries must be given the means to make the land assets productive. Here as part of the agrarian reform program, the beneficiaries

are being organized into agrarian reform communities (ARC). So far, 1600 ARC have been organized but only half of them had been provided government support to make them productive. The PA 2020 idea is to complete agrarian reform in the lowlands. We must organize finance and empower at least those 1,600 agrarian reform communities so that they become viable agro-industrial planters.

In terms of the asset reform in the uplands, this is easily one of the more interesting recommendations. We suggest the private titling of production forests to deserving forest occupants. The Department of Environment and Natural Resources has classified public forest lands into protection forests and production forests. Out of the 8.4 million ha of production forests, more than five million ha are now covered by the so-called community-based forestry management agreements involving more than 400,000 thousands forest households organized into 2,800 people's organizations. We propose a radical change in forest lands policy, building upon the initial successes of the social forestry program, and provide incentives for better compliance with this collective community-based forest management agreements. We have to rely on the people's organizations, the local government units and of course, DENR. Similarly, as in agrarian reform in the lowlands, the mere transfer of land in the private domain will not be enough and therefore this initiative must be coordinated with incentives for the establishment of processing plants in those production forest areas to absorb forest products of the incipient tree estates because if these forest lands are now given to occupants and they are encouraged to plant forest trees or farm or whatever, we have the markets that will absorb their produce by way of forest product establishments.

Finally, the poorest Filipinos are the coastal fisherfolks. Right now, we have 59,000 ha of coastal shallow waters farmed with seaweed and some finfish, abalone, and sea cucumber. In 2003, this sector of mariculture was worth PhP 3.67 billion. We propose that we expand this area under mariculture from 59,000 ha to 255,000 ha over 15 years. I think you can sense that in fact this is a major recommendation that will have impact on justice and peace, because a lot of those suitable coastal shallow waters are in Mindanao and part of the Visayas where many cultural minorities live.

The third and final pillar has to do with nurture of nature and community values. Agriculture as a way of life has many dimensions and we are focusing on the value of respect and love for the environment which has implications



on sustainability and solidarity with fellow members of the community. Because as long as we have small fragmented holdings, you need people coming together, cooperating together, so they become more efficient, more vigilant in protecting the natural resources and so on. One financial implication here is the prospects for ecotourism.

### **Enabling Strategies**

But how do we accomplish all these objectives of PA 2020? These activities and strategies can be bundled into three enabling strategies—technology development, investments, and governance reforms.

Technology development is the “efficiency driver” of the supply chain in the provision of agricultural goods and services. As an enabling strategy, production technology innovations will reduce per unit cost of production resulting in enhanced efficiency in the agribusiness system. Green technologies on the other hand will reinforce the integrity of ecosystems and guarantee their sustainability over time. Secretary Yap has mentioned that we have to analyze the weaknesses and opportunities of the supply chain at every step and that should provide us some indication of where our research priorities ought to lie.

The second enabling strategy is investment because all of this will not happen if you do not have investments in irrigations, roads, seaports, information and communications and post harvest. This will not happen if we don’t invest in human capital, and if we do not strengthen the institutions engaged in or responsible for agricultural development.

The third enabling strategy is to address the whole range of things under governance. As Secretary Yap mentioned there is a parallel effort led by Dr. Cielito Habito, former NEDA Secretary and now Director of the Ateneo Center for Economic Research and Development to look at those policy and governance reforms necessary to get agriculture moving. We have a long list but let me just focus on the legislation that would be necessary if we were to proceed with this plan. First of all there is a pending legislation on the collateral value of CARP lands. There is a debate on this but the writing panel and our resource persons are of the opinion that it is best that the CARP lands have collateral value so that the asset holders can now go to the bank and obtain credit to invest in their lands. A second legislation is necessary if we are going to release the public forest lands to the forest dwellers. As I have said this is a very important paradigm and this would require legislation. There are now plans for producing biofuels on a large

scale—ethanol from sugar and from cassava, and coconut methyl ester from the coconut. The investors are waiting for signals because they would not go into huge investments in alcohol refineries and biodiesel plants without the corresponding legislation that would make mandatory the blending of ethanol with gasoline and coconut methyl ester as biodiesel. This will save precious foreign exchange but also make us all in compliance with the Clean Air Act.

The document is not yet complete simply because the clusters have not really finalized the report. In the case of sugar and coconut which are the better prepared cluster plans for now because there are agencies responsible for them, unfortunately the biofuels programs of those two clusters have not yet been incorporated.

### **The Example of Rice**

So how do we see Philippine Agriculture in 2020 as far as rice is concerned? First we will be self-sufficient in rice in 2020 in spite of the fact that today we are still importing a million tons every year. And mind you, we will reduce the area harvested from rice from 4 million ha to 3.5 million ha and in spite of the fact that our population will have increased from 84 million to 105 million by then. And now how do we do that? One obvious way is to expand hybrid rice from 250,000 ha to one million hectares. We will use certified hybrid seeds, we are going to double our fertilization rate from 65 kg of nutrients per hectare to 130 kg. We will increase the rice milling recovery from 6.5 to 6.7%. By the way, I hope all of you will eat brown rice because it is more healthy. It has more fiber but the recovery for brown rice is 72%. So if only all of us will eat brown rice at 72% milling recovery we would have met all our rice requirement. We will reduce postharvest losses from 15 to 10% and of course we will be very rich by then, and we will eat less rice from 105 to maybe 100 kg per capita.

### **The Next Steps**

What are the next steps as far as this document is concerned? We have to review and complete the industry cluster plans and make them conform with the logical frame. We have to consult with the departments, with the agencies, producer groups, processors, traders and civil society, but most importantly we have to flesh out the financing plans and strategy. We have a very skimpy treatment of that section but that is a reflection of the expertise we have access to because we scientists normally have very little to say in terms on where to get the money. Then the document of

course must be approved by NAST because this document will have the imprimatur of the Academy. By 15 December we should be ready to endorse Philippine Agriculture 2020 to the President, to the Cabinet and to the Congress. And also we have to bring this to the regions to promote awareness and concern for agriculture and support for agriculture.

### **In Conclusion**

We have presented to you the broad outlines of this long-term strategic plan. We have a conceptual development framework, social philosophy, pillars, and three enabling strategies. One of the reasons in bringing this work in progress before you is to solicit your reactions and comments to this broad outline of the Philippine Agriculture 2020 so that we can go back to the drawing board, consult more people and finalize this.

Philippine Agriculture 2020 is a vision of a bright future, is a message of hope and confidence in ourselves and our future as a nation. And we submit that this is very timely especially during this period of national despondency and uncertainty. But we have all the reasons to be confident and hopeful of the future because we have the people, we have the institutions, the natural resources, we have the technologies and we can generate our own, and because we have a vision and a plan. What we need to do now is to build a national consensus to see this plan through.

Let me end with a quote from a very learned Sanskrit poet and dramatist: "For yesterday is but a dream, and tomorrow only a vision, but today well-lived makes every yesterday a dream of happiness and every tomorrow has vision of hope."

This is our vision of hope. Thank you.