The Philippine rural economy: status and measures for increasing farmers' income and economic vitalization

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Abstract

The agriculture sector is a major contributor to Philippine economic growth. It accounts for 20% of the gross domestic product (GDP) valued at Philippine pesos (PHP)197.7 billion at constant prices and posted 3.9% growth in 2001 (the industry and service sector contributed PHP336.7 billion and PHP454.8 billion to the GDP, respectively). While 47% of its total land area of 13 million hectares is devoted to agriculture and about half of its labor force is employed in the sector, the Philippines remains a net importer of agricultural products, posting a USD794 million balance of trade deficit in agriculture in 2001. This is attributed to the slow growth in productivity of the agricultural sector.

Given that 50 million of its population of 79 million people are predominantly in rural areas, about two-thirds depend on agriculture for their livelihood. Moreover, considering the prevailing slow growth of productivity in the sector, much needs to be done in the rural sector if sustainable development is to be pursued. Efforts should not be focused on agriculture alone, but a link needs to be made between production and the value-adding activities characterizing the non-farm sector. In the same manner, development efforts should focus not only on rural areas but on urban areas as well, given the much-talked-about rural–urban dichotomy—presupposing that rural industrialization must go hand-in-hand with agricultural development.

The government is still hopeful about the vitalization of the agricultural sector. In fact, the present administration's thrust is to make the Philippines the 'food basket' of East Asia by 2025; a not so far fetched vision, given the country's natural resource endowment, tropical climate, and technological developments. However, much has to be done to achieve this vision. How sustainable development through agriculture and agro-industrial development is best achieved is a big challenge confronting the country.

The Philippines is not lacking in terms of program thrusts and strategies that aim to enhance agro-industrial development, increase farmers' income, and revitalize the rural economy. This is reflected in its various programs, such as modernizing agriculture and creating a million jobs, among others, which are discussed in this paper. The paper also highlights the impediments to development of the Philippine rural economy as seen from the perspective of donor groups and the government itself. These serve as a backdrop for assessment of how well the program strategies adopted have actually contributed to the goal of sustainable development and addressed the identified problems of low productivity, increasing poverty, and associated problems of the country's rural economy.

Introduction

THE Asian region has come a long way from the food crisis years of the 1960s. It has made remarkable headway in food security, poverty reduction, and per capita income, having posted high positive growth in all these areas over two decades (Figure 1). In spite of this remarkable growth, mainly attributed to the green revolution, 650 million people still live in poverty, particularly in the Asian rural areas, which are characterized by low agricultural productivity. Where agricultural productivity is low, rural poverty abounds and the problem of environmental degradation follows as a result of increased pressure placed on the natural resources in the effort to obtain sufficient food.

The sorry state of the non-agriculture or non-farm sector (NFS) is another factor that contributes to the Asian rural economic woes. While generally the rural

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NFS in Asia accounts for about 20–40% of the total rural employment and about 25–50% of the rural income (Asian Development Bank 2000; Manalili 2001b), the sector's growth has been modest over the years. Some attribute this to limited investment in the agriculture sector, while others to the infrastructure and technology gap. The value-adding ventures that usually characterize the NFS are hampered not only by the limited production of the farm sector but by the high cost of energy (fossil fuel) as well.

The Philippines is a typical Asian-country example where agricultural promise is high and yet productivity both on and off farm is low, and the majority of the farmers and rural inhabitants are still tied to the bondage of poverty. Thus, increasing farmers' income and rural economic vitalization are a continuing challenge to which the nation has to respond.

Philippine agriculture and the rural economy

Agriculture remains one of the major contributors to the Philippine economy, accounting for almost 20% of the gross domestic product (GDP) and valued at Philippines pesos (PHP)197.7 billion at constant prices (PHP549.9 billion at current market prices) in 2001 and registering an annual growth of 3.9% (Figure 2). It provides employment to about half of the total labor force and to two-thirds of the estimated 50 million people living in the rural areas.

The agriculture sector

The Philippines is predominantly agricultural, with 47% of its land area of 13 million hectares devoted to agriculture. A net importer of agricultural products since 1994, the country posted a USD794 million balance of trade deficit in 2001. This was largely attributed to low agricultural productivity (Figure 3), owing to the very low degree of agricultural mechanization and lack of investment in agriculture.

Agriculture's share in the total national budget is 3.3% (1999). The amount devoted to research and development is only 0.2% and irrigation services cover only 43.19% of the total irrigatable area. In addition, 43% of the country's fertilizer supply is imported.

While the Philippines ranked third (after Malaysia and Vietnam) in agricultural productivity measured in terms of value added per worker, this is attributable mainly to the presence of large-scale farming operations

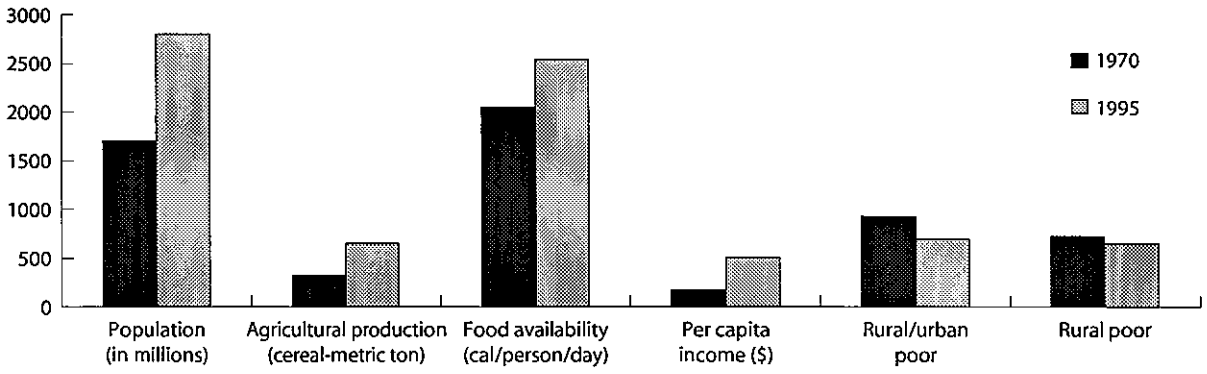

Figure 1. The Asian scene, 1970–1995.

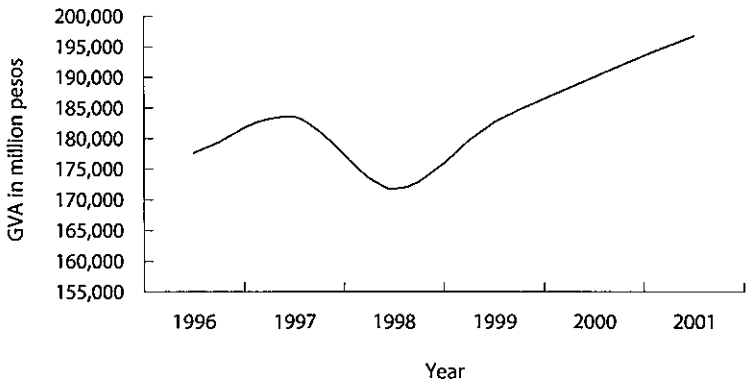

Figure 2. Gross value added (GVA) in agriculture, 1996–2001 (at constant 1985 prices).

(mainly multinational corporations) which are usually mechanized. In general, however, the Philippines is characterized by small-scale farming units that depend on manual labor. This duality of the character of Philippine agriculture only adds to the complexities of its problems. This likewise explains the narrower base of Philippine agriculture, as productivity lies in the hands of the big and the few.

Philippine bananas, pineapples, and mangoes are the country's top export winners. While they may have a niche in the international market, stiff competition and still unresolved market access issues, such as tariff and non-tariff barriers, are proving to be a major deterrent.

Operational inefficiencies likewise confront the agro-industrial sector in the Philippines. The country's three major commodities are rice, coconut and sugar. Rice is a major import while coconut and sugar are major exports. While most of the Association of South-East Asian Nations (ASEAN) rice technologies and scientists have their technical roots in the Philippines, this country is now importing rice from its neighbors, particularly Thailand and Vietnam. As of August 2001, the wholesale price of regular milled rice in the major Manila wet markets was PHP16.53/kg (Tolentino and Noveno 2001). For the same quality of rice that the Filipinos consume, Vietnamese households pay only PHP6.36/kg, and Thai households only PHP7.54/kg, according to the same source.

In terms of area planted, the Philippines is ahead of its ASEAN neighbors when it comes to coconut. Production-wise, however, it is second to Indonesia. The Philippines may only be second to Thailand in terms of volume of sugar exported, but the country's sugar price is 100% higher than Thailand's baht (THB)12/kg price.

These agro-industrial examples reflect sector-wide inefficiencies which need be addressed to make the sector viable and sustainable. Moreover, there is a need to look for other areas that could vitalize the agro-industrial sector.

The situation has not improved as, nationally, there has been little improvement to farming systems, and limited diversification in generation of farm, off-farm and non-farm income (Medium-term Philippine Development Plan, 2001–2004).

The rural economy

Poverty in rural areas is attributed not only to the low productivity of agriculture on which the rural population is largely dependent, but also to the low economic activity due to the lack of alternative non-farm economic opportunities. More than half (54.4%) of the rural population in the Philippines live below the poverty line (Table 1). The percentage of the poor people in the rural area is quite high compared to only 25% in the urban areas and 40% of the total national population. Also, compared to neighboring ASEAN countries, the percentage of rural poor in the Philippines is very high and still increasing.

Statistically, the poverty incidence in the country increased from 37.5% in 1997 to 40.0% in 2000 or up by 2.5%. More specific figures show an increase in poverty incidence in rural areas from 51.2% in 1997 to 54.4% in 2000. These figures show that despite efforts to improve agriculture, benefits from such programs are not fully trickling down to the rural population.

As value-adding activities usually occur in rural communities where energy sources are usually expensive, if not scarce, the degree of agro-industrial development in the Philippines is saddled with the problem of an unstable and high-cost power supply. One area which could both help vitalize the agro-industrial sector and improve access to power is the use of biomass to generate energy. Philippine biomass resources are significant (Table 2) and the government is making efforts to tap them.

Table 3 shows the sector's energy consumption. This dependence on fossil-fuel-based power is posing a threat to the sustainability of the agricultural sector and the rural economy depending on it.

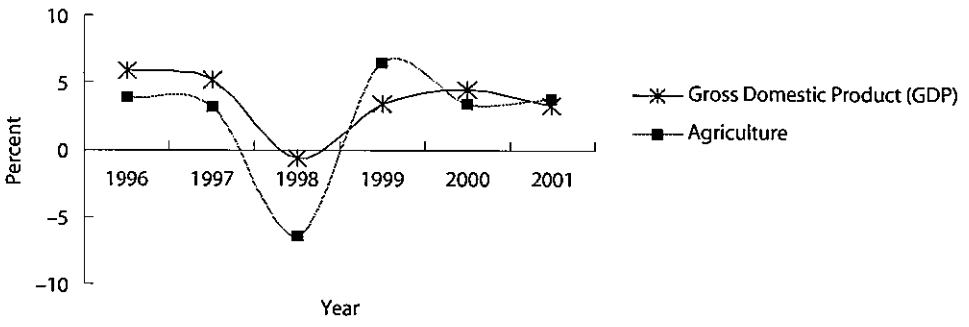

Figure 3. Growth rates of gross domestic product (GDP) and agriculture in the Philippines, 1996–2001.

Table 1. Percentage of people living below the national poverty line, in urban and in rural areas (% of total population) in Southeast Asian countries.

Area	Cambodia	Indonesia				Lao PDR		Malaysia		Myanmar	**Philippines**			Thailand			Vietnam	
	1997	1996 Feb	1998 Dec	1999 Feb	1999 Aug	1993	1997	1997	1999	1997	**1994**	**1997**	**2000**	1994	1997	1998	1993	1998
Urban	21.1	13.7	21.9	19.4	15.1	24.1	26.9	4.1	3.8	23.9	**28.0**	**22.5**	**25.0**	10.2	1.5	1.5	25.9	9.0
Rural	40.1	19.9	25.7	26.1	20.2	53.0	41.0	16.1	13.2	22.4	**53.1**	**51.2**	**54.4**	13.1	17.2	17.2	57.2	45.0
Total	36.1	17.7	24.2	23.5	18.2	46.1	38.6	16.1	8.1	22.9	**40.6**	**37.5**	**40.0**	13.1	12.9	12.9	50.9	37.0

Source: ASEAN statistics, 2001.

Table 2. Philippine biomass resources (t), 1999.

Region	Rice hulls	Bagasse	Coconut shell	Coconut husk	Coconut coir
CAR	44.3	0.0	0	0.4	0.3
I	216.4	0.0	14.9	33.0	23.1
II	314.8	55,591.4	86.2	16.0	134.0
III	368.5	392,732.9	546.7	1.1	850.0
IV	241.5	521,779.1	65.0	740.3	101.1
V	144.0	74,836.3	7.2	252.9	11.2
VI	306.3	3,441,250.8	0.5	97.4	0.8
VII	41.7	687,724.0	333.1	136.9	518.2
VIII	101.3	183,257.9	114.2	509.6	177.7
IX	65.2	0.0	43.8	539.0	68.2
X	66.4	426,274.4	61.6	191.5	95.8
XI	136.2	135,649.9	229.3	1214.9	356.7
XII	159.8	66,742.9	242.6	144.5	377.0
XIII	56.0	0.0	43.0	95.5	66.8
Philippines total	2262.4	5,985,839.6	1788.1	3973.0	2780.9

Learning from the past

A look at the key elements of growth and on the agricultural program thrust of Philippine agriculture over the years will help provide better appreciation of the situation.

In the past, the Philippines relied heavily on traditional exports, primarily to the United States of America, and agricultural growth was usually led by the crop subsector. Since 1970, however, there has been a shift from traditional to non-traditional, high-value crops such as mango, banana, onion, and garlic (Table 4), with the livestock sector posting increasing contributions as well. The high pay-offs of inputs such as fertilizer, high-yielding varieties, and improved irrigation are said to have contributed greatly to the growth of the agriculture sector. Added to these is the positive output of the regional commodity specialization strategy and the private sector involvement, which has been a reliable source of investment funds in agriculture.

The sector is also influenced by pressing social concerns, including a lack of adequate social safety nets, particularly in cases where school drop-outs are on the rise, mainly due to lack of funds or the need to find a job to contribute to the family's income.

A country's economic performance is, to a great extent, dependent on its program thrust and policies. In the case of the Philippines, the thrust has been divided into four major strategies in the last two decades, namely, import substitution, trade liberalization, food security, and agricultural modernization, each with its own issues (Table 5). First, import substitution (1979–1980) was strongly biased in favor of the manufacturing industries—neglecting the agricultural sector in the process. The policy of liberalized trade, which characterized the second program thrust, was said to have enhanced competition among industries and fostered an outward-looking development strategy. A major issue, however, was that it led to a conflict between the food security thrust (the third) which promotes staple crops (rice and maize) and the thrust to push high-value crops. The gain of one necessarily means the loss of the other.

The fourth thrust of agricultural modernization is a welcome move as it has long been overdue. As comprehensive as the Agricultural and Fishery Modernization policy may be, its success is still dependent on the amount of investment available and having the operational machinery in place, not to mention the political will required.

These program thrusts were accompanied by the banner programs outlined in Table 6.

Increasing agricultural productivity and improving the rural economy

While the banner programs of various political leaders may vary, the objectives remain the same—to enhance the productivity of the agriculture sector and develop enterprises that increase livelihood.

Table 3. Consumption of petroleum products by selected industries in the Philippines (in thousand barrels).

Industry	Year			
	1997	1998	1999	2000
Coconut and vegetable oil	704.04	595.16	369.26	337.45
Sugar	672.25	977.28	947.92	640.64
Other food processing	1824.84	1631.53	1723.05	1442.77
Wood products/furniture	112.61	98.20	111.62	101.30
Agricultural crop products	588.79	246.82	213.84	119.23
Livestock/poultry	45.95	45.16	39.13	34.74
Total	3948.48	3594.15	3404.82	2676.13

Source: Philippine Statistical Yearbook, 2001.

Table 4. Major sources and key elements of growth in Philippine agriculture.

Pre 1971	1971–2001
1. Export demand (primarily United States market) 2. Crop sector (rice, maize, sugar, coconut) 3. Land expansion	4. Crop sector, non-traditional commodities (mango, banana, onion, garlic) 5. Livestock sector growth rate contribution increasing 6. High pay-off inputs (fertilizers, varieties, irrigation) 7. Trends towards regional commodity specialization 8. Private sector, a reliable source of investment funds in agriculture

Table 5. Issues associated with the four major program thrusts of Philippine economic development.

Program/thrust	Issues
Import substitution, 1970–1980	*Strongly biased in favor of manufacturing industries* Effective protection rates enjoyed by the manufacturing sector were almost five times those of the agricultural sector
Liberalized trade policy	Aims to promote competition in the industrial sector, equalize tariff protection among industries to eliminate bias, and promote an outward-looking development strategy Privatization of importation
Food security	Adequacy and sufficiency at affordable prices—choice between high-priority staple crops (rice and maize) and high-value crops
Agriculture and Fisheries Modernization Act of 1997 (AFMA)	How well can the plan be implemented?

Table 6. Programs pursued in the past decade.

Years	Programs	Political administration
1988–1991	Livelihood Enhancement for Agricultural Development	Aquino
1992–1994	Fast-track development in the rural communities to increase income through profitable enterprises (locally developed technologies)	Ramos
1995–1997	Gintong Ani Program (key production areas) Agriculture and Fisheries Modernization Act of 1997 (AFMA)	
1998–2001	Makamasa Program (increase productivity and production, as well as improve farmers' income and quality of life)	Estrada
2001 to date	Ginintuang Masaganang Ani (achieve food security and poverty alleviation, with local government units (LGUs) and other stakeholders developing their own plans and programs suited to their localities	Arroyo
2002 to date	Million Jobs Program (increase employment through agro-industrial linkages)	

In the current sorry state of Philippine agriculture, investment-pursuing activities need to be undertaken before further productivity can be expected. The AFMA of the Ramos administration provides the blueprint for agricultural modernization. It was enacted in 1997 with the objective of modernizing the agriculture and fisheries sector by transforming it from a resource-based to a technology-based industry. It also aimed to: enhance profits and incomes, particularly those of the small farmers and fisherfolk; ensure the accessibility, availability and stable supply of food to all at all times; promote people empowerment; enhance the comparative advantage of the agriculture sector in the world market; increase value-adding activities to products in order to minimize marketing of raw materials; adopt polices that would promote industry dispersal and rural industrialization by providing incentives to local and foreign investors; provide social and economic adjustment measures that increase productivity and improve market efficiency while preserving and protecting the environment and the equity of the small farmers and fisherfolk; and improve the quality of life of all sectors.

The AFMA defined the necessary policy environment and public investment scheme that will make the rural economy highly productive and competitive, both in the national and international markets. With the modernization issue addressed, the move to increase employment and widen the economic base though agro-industrial linkages (Million Jobs Program) is another shot at enhancing rural employment. The main focus of the Million Jobs Program is to improve agriculture and link it to the industrial sector. This tie-up between agriculture and the industries is seen as a way of stimulating growth and encouraging more economic activities, thus increasing opportunities for employment in both sectors. Its major component is the formulation of the needed strategies and corresponding actions that will enable the country to gain market access in the developed countries and improve further the product quality and competitiveness of its export winners. Greater and sustained access means continuing production and employment and consequently a vitalized rural economy.

The present and future

THE complexity of the problems of the agriculture sector and their effect on a large portion of the economy has made the government focus more on development of this sector. The current Medium-Term Philippine Development Plan for 2001–2004 identified the following strategies to develop the agriculture and fisheries sector of the country:

- implement AFMA and the Fisheries Code of 1998
- improve the effectiveness of public-sector interventions
- improve support service delivery
- mobilize entrepreneurship, private-sector investments and participation
- shift to appropriate technology-based, labor-employing, value-added-driven agriculture and fisheries
- develop Mindanao as a 'food basket' and exporter of high-value agricultural and fisheries products
- shelter the most vulnerable from the adjustment shocks of modernization and globalization
- build up the capabilities of partner institutions and ensure the continued full participation of stakeholders in the formulation and implementation of AFMA.

While it is good that the AFMA has likewise been adopted by the Arroyo administration, the lack of fund allocation to get it moving is still the biggest problem of all. Also, certain issues arising from AFMA still need addressing (Table 7) to fully maximize benefits and prevent adverse effects, especially on farmers, at this time of globalization.

The current agricultural development programs partly address the issues mentioned above. Promotion of the local produce to the international market has long been undertaken as part of moving it beyond the bounds of the local markets. However, the budgetary constraints in AFMA's implementation still hound the government and the agriculture sector, especially at this time of high deficit. Protection for local produce, such as by tariffs, has yet to be removed as part of the globalization trend. Safety nets and procedures, such as the minimum access volumes, will have to be put in place to prevent drastic change in the trade environment and allow gradual adjustment to the new trade policies.

Challenges to sustainable agricultural development

WHILE there are concrete plans and programs for the development of the Philippine rural economy, there are also performance-slowing impediments. Major international donors like the World Bank (WB), the Asian Development Bank (ADB), and the Australian Agency for International Development (AusAID) have identified these impediments to the country's sustainable development (Table 8). The findings shown in Table 8 concur with earlier discussion in this paper of agricultural woes in the Philippines, such as the prevalence of poverty in the majority of the population, the high dependence on less-productive agriculture, hindering economic growth, population increase that puts pressure on natural resources, and the inadequacy of support systems including credit, education, and infrastructure. As if these problems are not enough, previous studies likewise cited that the Philippine policy environment is not conducive to investment in agriculture, the same way that the administrative structure does not lend itself to effective policy development (overlapping of functions, frequent 'changing of guards' in line agencies).

With these findings, does that mean that the major donors have given up, or are they still hopeful? While policy is a major critical issue, the general sentiment is that the initiative to address policies should come from within and is best left for the Philippine government to tackle. The recommended focus is to support projects that are sound and robust by themselves, given the not-so-conducive environment they have to withstand.

To achieve success, one has to learn from previous failures. At this point, it is worth noting that previous

Table 7. The imperatives for agricultural modernization highlighted by the Philippine commitment to the World Trade Organization and other multi-lateral trade liberalization agreements.

Procedural issues	Structural issues	Social issues
1. How can the Philippines capitalize on the economic strengths brought about by agricultural modernization and industrialization to push Philippine products beyond the bounds of the domestic markets?	2. Monetary and fiscal policies to make the peso competitive with other ASEAN currencies 3. Difficulties in implementing AFMA due to budgetary constraints	4. Domestic consumer protection from sudden and abrupt global disruptions in world supply and world price. (Is there a need to protect them in the first place?) 5. What safety nets should be put in place to cushion the effects of liberalization?

evaluations of government-led projects revealed that there has been much to be desired in terms of objective achievement and the lessons learned. Among other factors, is the need for (a) congruence between set program objectives and strategies, (b) the adoption of systems perspectives, and (c) the presence of support incentives, benchmark information and key success ingredients (Manalili 2001a). Development program planning needs to ensure that projects have a sound basis, and there needs to be a focus on widening the economic base of the sector. A lot of the donor recommendations focus on market-driven value-adding activities that will link production with markets—mostly agri-based industries or small and medium enterprises (SMEs).

What needs to be done?

THE presence of appropriate development programs, policies and laws, and government initiatives is just part of what is necessary to achieve rural economic vitalization. To enhance the effectiveness of government programs in responding to the needs of the rural areas, mapping out strategies and fast-tracking rural development, lessons of the past must be heeded in the process of innovating for the future.

Developing rural–urban linkages

While the willingness to improve the status of the rural economy by focusing on increasing agricultural production may be present, much is still dependent on providing a conducive environment and brokering the much needed link between agriculture and industry. This is the job of agro-industrial development—that of adding value to agricultural produce and making the product move from farm to market, raw to processed. It is only recently that the government has addressed this much-needed link between rural and urban industries through the establishment of growth areas like export processing zones and regional growth centers where strategic alliances between and among stakeholders are encouraged.

If the Million Jobs Program, which is anchored on rural–urban linkage promotion, can be successfully implemented, it will be a step in the right direction. The main focus of the program is to improve agriculture and link it to the industrial sector. This tie-up between agriculture and the industries will stimulate growth and encourage more economic activities, thus increasing opportunities for employment in both sectors. This program is also in line with the policy framework of the Medium-Term Philippine Development Plan (2001–2004) which aims to create one million jobs through implementation of AFMA and the Fisheries Code of 1998.

Structure

The agriculture sector in the Philippines is basically composed of small farmers and fisherfolk, the few landlords, the local market, and the government acting as the overall coordinator of the components. It is only recently that value-adding agro-industries and activities were introduced as an important component in increasing productivity and income.

The role of the government in agriculture is mainly the responsibility of the Department of Agriculture, headed by its secretary. Given its scarce resources, it continues to maintain a huge bureaucracy with a number of programs and projects without cognizance of the market and international realities. With these problems confronting the sector, there is a need for a change in the framework in Philippine agriculture to one which will address the needs of every stakeholder, thereby increasing their productivity, cost efficiency, and income, and making the sector globally more successful. This can be done by focusing on three groups within the sector: (a) the small farmers and rural micro-enterprises that need most help in terms of financing, technical expertise, and support services; (b) the traditional corporate farms and agribusiness enterprises which have the need for credit, technology and safety nets against subsidized imports; and (c) the progressive and modernizing commercial farm sector which has partnerships with small farmers. The last group plays a very important role as they are the ones with the market orientation, high growth contribution potential, and a strong link to global markets. If appropriately tapped, they offer the most potential to help the small farmers, as they provide support services and alleviate agricultural risk though 'growership' arrangements and subcontracting schemes.

As well as structural changes, the transformation of the agriculture sector requires complementary 'priming-up' activities to be undertaken. First, the sector needs modernizing as it is the foundation for global competitiveness. The government and the private sector should cooperate and help the small farmers and build their capacities to establish rural-based micro-enterprise. Streamlining the sector, re-orienting it towards becoming more internationally oriented, market-driven and technology-based will provide the much-needed boost. Also, strengthening key agencies and offices to assist stakeholders to gear up for global competition will help fast-track development. Establishing safety nets and rationalizing national policies and operations are likewise complementary measures.

Low productivity

While agriculture posted crop subsector-led growth, particularly through rice, maize, sugarcane, and coconut, productive gains from the same could be easily eroded by increasing input costs. Low infrastruc-

Table 8. Impediments to rural development in the Philippines (SME = small and medium enterprise).

Type	Donor institution					
	World Bank		Asian Development Bank		AusAID[a]	
	Impediments	Strategies and programs/ solutions	Impediments	Strategies and programs/ solutions	Impediments	Strategies and programs/ solutions
Productivity/ income/prices	• High dependence on agriculture where productivity is declining • Low per capita economic growth	• Enhance competitiveness through trade and regulatory reforms (agriculture, services, and SME sectors)	• Persistence of rural–urban disparities, poverty remains rural	• Economic growth through increased attention to rural development, more balanced regional development, policies and programs to promote stable macroeconomic environment • Regional cooperation • Good governance • Private sector development (support SME sector)	• Increased prices of domestically produced inputs relative to prices of agricultural outputs	• Improve local government service delivery though a review of the internal revenue allotment (IRA) • Focus assistance in Mindanao (where one-fifth of the population is located and about one-third of the poor live)
Support services	• Lack of adequate social safety nets • Lack of educational attainment and low quality of education	• Raise productivity by alleviating key infrastructure bottlenecks, especially transport and rural power • Improve governance (public and corporate) • Invest in human resources (education and health) • Efficiently provide other basic services • Increase access to productive assets (land, technical)			• An archipelagic geography with many small, poorly integrated, domestic markets exacerbated by poor transport and communications, and with weak links between agriculture and industrial demand • Inadequate rural infrastructure • Weak and poorly focused agricultural research • An agricultural credit system weakened by lack of demand from non-growing agriculture sector	
Social (demographics, migration, gender)	• Population pressures		• High population growth • Increasing urbanization has been exacerbated by rural to urban migration in search of employment opportunities	• Human development • Gender and development		
Environment/ natural resources	• Declining natural resource base	• Initiate programs to protect the environment and natural resources		• Environmental protection	• Severe resource depletion problems in village coastal fisheries and competition with commercial fishing	

[a] AusAID = Australian Agency for International Development.

tural development, inadequate support services and prohibitive prices of inputs have to be addressed if sustained productivity is to be pursued. Productivity that makes agriculture profitable for the farmers will certainly help to vitalize the rural economy. This could be achieved by promoting value-adding activities like processing in rural areas or close to where raw materials are produced. This is a much anticipated scenario compared with that where farmers sell their produce raw and at much lower prices. This will improve the value added per worker in the country, which is quite low compared with other neighboring countries. The tie-up between small farmers and the agro-industries will certainly enhance development of the rural economy.

One way to make agriculture and agro-industrial endeavor more profitable is to develop new markets for crops and their products and residues. One of the most promising ways to achieve this is to look at agriculture's potential as an energy source. Not only will this offer new markets for agricultural by-products, but it will likewise help address the energy problem besetting the sector (Manalili and Dorado 2002).

Environmental degradation

The issue of environmental degradation resulting from agricultural activities is usually neglected in agricultural development programs. Lately, however, efforts are being made to minimize adverse effects on the environment through holistic and integrated approaches to agricultural production. The concept of development sustainability addresses this issue. Sustainable agriculture programs like integrated pest management and organic farming likewise should be promoted as they lead to production enhancement through environmental friendly methods. The use of agro-industrial waste for further agricultural purposes is another 'growth-priming' move that could turn waste products into a much needed resource.

Other concerns

Land reform in the Philippines is a very important component of agriculture. The Comprehensive Land Reform Program (CARP) has distributed land to landless farmers in an effort to increase productivity and free them from being tenants. In 2002, the government distributed 104,261 ha to 72,188 agricultural reform beneficiaries (ARBs) and provided them with accompanying development programs—with the hope that they will help the tenants turned land owners/entrepreneurs in the adjustment process. Initially, most of them were ill-prepared for the job and their land has been leased back to the landlords—defeating the very purpose of land reform.

Credit and other support services like irrigation, increasing investment in the reformed areas, preventing premature conversion to urban use, and an efficient land titling system are of highest priority in obtaining maximum benefits from the land reform program.

The limited activity in agricultural research and development (R&D) likewise needs to be addressed as it is crucial to a modernized and competitive agriculture sector and vitalized economy. However, expenditure on R&D is constrained by budget problems on the part of the government. Public expenditure on agriculture is high at 8% of the gross value added in agriculture, but half of this is for addressing concerns of food security only—specifically towards rice price stabilization. Setting the priorities according to the needs of the farmers and enhancing collaboration between the government and the private sector will help improve R&D and consequently lead to a technology-based agriculture.

Conclusions

THE job of increasing farmers' income and vitalizing the economy in a sustainable way is greatly reliant on moving agricultural produce from the farm to the market in an efficient manner. Efficiency is defined where stakeholders along the farm to market route, particularly the farmers, are getting their fair share of the price that their product commands in the market.

The job is not easy, but could be facilitated through appropriate R&D that leads to technology-based activities and enhancement of global competitiveness. This must be undertaken in an environment of functional support facilities and a conducive policy environment.

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