Senate Economic Planning Office

Economic Report

December 2004 ER-02-04

SUSTAINING GROWTH IN AGRICULTURE

Third Quarter Economic Report

This paper presents the Philippines' economic performance for the third quarter of 2004. It presents briefly the components of growth both by industry origin and expenditure account. The report later focuses on the outstanding performance of the agriculture sector this year, its role in the economy and the prospects for sustaining development in the sector.

Economic Performance in the Third Quarter

The country's gross domestic product (GDP) expanded by 6.3 percent in the third quarter this year, a big jump from the 4.8 percent growth rate posted in the same period in 2003. For three straight quarters now, the economy has been growing beyond 6 percent; this despite the country's fiscal problems, increasing oil prices, and increasing interest rates. Gross national product, for the second straight quarter, grew at a slightly slower pace than GDP at 6.1 percent. This is due to the slowing down of net factor income flows, which only grew by 3.4 percent compared to its growth of the 24.2 percent in the same quarter last year.

Growth was led by the agriculture sector which posted a significant growth of 7.9 percent. The top performers were rice, corn and aquaculture which grew by 18 percent, 34 percent and 20 percent in the third quarter,

Table 1. Gross National Product and Gross Domestic Product by industrial origin (In %)

	9 Mo 03	9 Mo 04	3Q 03	3Q 04	04 Share to GDP (%)
Agriculture, Fishery and Forestry	3.2	6.7	4.7	7.9	17.6
Industry	4.0	5.2	3.7	4.5	35.3
Mining, Quarrying	20.3	6.2	19.9	-4.8	1.7
Manufacturing	4.6	4.5	4.1	4.7	25.7
Construction	-4.1	10.5	-3.5	8.6	4.3
Electricity, Gas, Water	3.1	3.4	3.1	2.0	3.6
Services	5.6	7.3	5.7	7.1	47.0
Transport	8.3	10.8	7.8	8.5	7.9
Trade	5.4	7.1	5.3	7.5	17.0
Finance	7.0	8.9	6.7	9.9	4.8
Property	3.7	5.7	4.0	6.7	4.9
Private Services	5.2	6.7	5.2	6.5	7.8
Government Services	3.2	3.0	4.8	2.4	4.7
Gross Domestic Product	4.6	6.5	4.8	6.3	100.0
Gross National Product	5.9	6.2	6.5	6.1	

Source: NSCB

Table 2. Growth Rates of Subsectors in Agriculture

INDUSTRY	3rd Qtr 2004	3rd Qtr 2003	Growth Rate (%)
AGRI.,FISHERY,FORESTRY	50,260	46,585	7.9
1. AGRICULTURE INDUSTRY	49,829	46,192	7.9
a. AGRICULTURE	38,906	36,134	7.7
Palay	7,679	6,511	17.9
Corn	4,620	3,439	34.3
Coconut including copra	2,161	2,111	2.4
Sugarcane	85	88	-3.4
Banana	1,263	1,192	6.0
Other crops	8,702	8,634	0.8
Livestock	6,421	6,588	-2.5
Poultry	5,828	5,577	4.5
Agricultural activities & services	2,147	1,994	7.7
b. FISHERY	10,923	10,058	8.6

Source: Bureau of Agricultural Statistics

respectively. The livestock sector, however, contracted by 2.5 percent. Sugarcane, after posting a huge growth in the second quarter of 34.9 percent, shrunk by 3.4 percent in this quarter.

The services sector continued to perform well growing by 7.1 percent for a total growth of 7.3 percent for the first nine months of the year. The main drivers of growth for services continue to be communications and finance which grew by 16.4 percent and 9.9 percent, respectively.

Industry also outpaced its third quarter 3.7 percent growth of last year and grew by 4.5 percent this year. Construction continued to recover, growing by 8.6 percent, from a contraction of 3.5 percent during the same period last year. On the downside, mining contracted by 4.8 percent and electricity and gas slowed down with only a growth rate of 2.0 percent. Overall, from January to September this year, industry grew by 5.2 percent.

Expenditure Side

By expenditure account, exports led the way with a growth of 16.5 percent in the third quarter. Merchandise exports, which include electronic products, expanded by 17.9 percent. Personal consumption, led by food consumption, posted a slightly higher growth rate of 5.6 percent compared to its 5.2 percent growth in 2003. Investments slowed down, growing by 5.4 percent compared to its 6.1 percent growth in 2003.

Table 3. Gross National Product and Gross Domestic Product by expenditure shares (in %)

	9 Mo 03	9 Mo 04	3Q 03	3Q 04
Personal consumption expenditure	5.20%	5.90%	5.20%	5.60%
Government consumption	-0.20%	-1.90%	2.50%	-5.90%
Investments				
Fixed capital	3.60%	6.50%	6.10%	5.40%
Construction	-3.70%	8.20%	-3.30%	5.80%
Equipment	10.30%	5.80%	16.70%	5.00%
Exports	2.70%	14.30%	2.80%	16.50%
Imports	10.40%	5.60%	2.50%	6.10%

Source: NSCB

Agriculture in the Economy

Agriculture accounted for 17 percent of the country's output for the first three quarters of the year. In 2002, it provided employment to 37 percent of the total labor force. Historically, the share of agriculture output to GDP has been much higher at 29.9 percent in 1970. The same goes for agriculture labor which accounted for 52.1 percent of total employment in 1970.

Table 4. Shares of Major Sectors in Employment and GDP (in percent)

	AGRICULTURE		INDUSTRY		SERVICES	
YEAR	SHARE IN EMP.	SHARE IN GDP	SHARE IN EMP.	SHARE IN GDP	SHARE IN EMP.	SHARE IN GDP
1970	52.1	29.9	16.1	31.5	30.9	38.6
1975	54.3	30.2	14.7	35.2	30.7	34.6
1980	21.3	25.8	15.1	38.5	33.5	35.7
1985	49.7	24.4	13.9	35.9	36.4	39.7
1990	44.8	21.9	15.6	34.85	39.2	43.7
1995	43.5	21.4	16	32.2	40.5	46.4
2000	38.6	16.5	15.8	30.9	46.3	52.6
2002	37	14.9	15.5	31.6	47.5	53.5

Source: Bautista, 2004

The declining trend can, however, be deceptive if used to measure the relative importance of the sector in the economy. As observed in studies, the reduction in the share of agriculture to GDP and labor is a natural process in cases of sustained economic growth and development. ADB notes however, that while agriculture's importance in GDP will naturally decline, "its importance should only decline relative to other sectors, and total agricultural output should continue to grow steadily."[1] The problem with agriculture in the Philippines is that its share in the economy's output has been decreasing

Table 5. Historical Agricultural Growth Rates

	1970-79	1980-89	1990-99	2000-03
Agriculture, Fishery and Forestry	3.70%	1.54%	1.49%	3.91%
Agriculture and Fishery	5.79%	2.44%	2.00%	4.05%
Agriculture	6.20%	2.16%	2.08%	3.49%
Crops	6.25%	1.32%	1.25%	3.06%
Palay	4.16%	3.37%	3.24%	3.46%
Corn	5.58%	2.97%	1.04%	0.25%
Sugarcane	5.99%	-1.33%	3.68%	4.27%
Coconut	8.27%	-4.39%	-1.68%	8.16%
Banana	13.76%	-1.20%	2.80%	6.82%
Other crops	8.02%	2.55%	0.68%	2.27%
Livestock	1.44%	4.97%	3.96%	3.29%
Poultry	7.52%	7.25%	5.83%	5.53%
Agricultural activities and services	9.87%	3.36%	0.85%	4.23%
Fishery	4.06%	4.08%	1.74%	6.30%

Source: PIDS Database

[1]B. Johnson (2004)

simultenously with decreasing agriculture growth rates.

The average growth rate of agriculture has been decreasing over time from 5.8 percent during 1970-79, to 2.4 percent during 1980-1999 to just 2.0 percent from 1990-1999. The declining growth rates are attributed to the years of neglect in the agriculture sector due to the general under-investments in infrastructure and research and development, coupled with pressures from decreasing world prices and environmental stresses, adversely affecting production.

Over the past four years, however, the sector has shown signs of attaining the growth levels of the sector in the 70's. Between 2000 to 2004, the growth rate of agriculture has been averaging 4.1 percent. Good performances from the poultry and fisheries subsectors have pulled the output of the sector upwards. In 2003 and this year, when growth in poultry was low, the rice or the corn sectors have managed to post significant growth rates to sustain the growth of the sector in general.

The good performance of agriculture has been attributed to strategic interventions such as the provision of high-yielding varieties and fertilizers, the increasing activities in aquaculture, particularly in response to high demand for seaweeds, and on many occasions, favorable weather.

Sustaining these Levels of Growth

The sustainability of agriculture's growth is being questioned considering that the sector has only managed to grow by an average of 2 percent in the past 20 years. Moreover, in years where agriculture grew by more than six percent, these were succeeded by drops in growth by around two percent the following year. In the last thirty years, all sub-sectors of agriculture have generally been experiencing decreasing growth rates. Balisacan noted that a sustainable growth level for agriculture is only at 3.4 percent.[2]

The sustainability of the sector's growth is also threatened by natural resource constraints. Production contracts when there is insufficient rainfall such as during El Niño. Forestlands have also been severely depleted. Bautista (2004) traces the reduction of agriculture growth beginning in the 70's from commercial logging and "(its) effects on the volume and distribution of stream flow from headwater forests to the low land farms, the consequences of excessive surface runoffs during the rainy season on soil stability or erosion, and the accumulation of silt and sediments in irrigation canals and reservoirs."

Sound interventions in agriculture have not also been seen over the past decades. For example, irrigation has stopped expanding since 1990 and remains to cover just 1.4 million hectares of the 3 million hectares of irrigable lands. Price intervention policies , which causes inefficiencies and reduces the country's competitiveness, continues particularly for the crops sector. The slow and prohibitive land reform process served as a disincentive for long-term investments for agriculture.

Physical Resource Constraints

Of the 30 million hectares of Philippine land, about 12 million hectares of land is used for agriculture. At this level, the country has almost utilized all lands suitable for agriculture (those with less than one percent terrain slope). This constrains the future expansion of agriculture areas to increase production. Rapid conversion of land for non-agricultural purposes has also limited options for such expansion.

The continued degradation of forests and the unpredictable water supply that arises from such degradation further compounds the problem of sustaining high agriculture growth rates. Today, only 5.4 million hectares of the 15.9 million

[2] Ordinario, C. "Economists cast doubts on sustainability of RP growth," The Manila Times, May 28, 2004.

hectares of forestlands remain covered with forests. This, combined with the lack of irrigation facilities, has made the sector dependent on good weather.

The area covered by coconut used to be at 8.8 million hectares but this has already decreased to 3.2 million hectares in 2002, with more than half of this being either not suitable or marginally suitable for farming.

The same degradation of resources can be said for the fisheries sector which suffers from over-fishing and various environmental stresses. A clear indicator of this is the declining production in municipal fishing. From an average growth rate of 2.2 percent in the past 30 years, the growth of municipal fishing output in the last decade has averaged -1.7percent per year. Aquaculture has been responsible for the good performance of the fisheries sector.

Government Resources Constraints

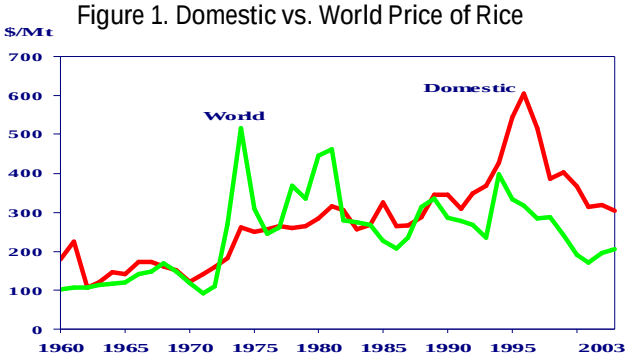
With limited government resources, the funding requirement of P17 billion annually for agriculture and fisheries modernization, as mandated by Agriculture and Fisheries Modernization Act, has always fallen short since its implementation. Investments for irrigation has always been insufficient of the required P160 billion[3] to cause the completion of the irrigation systems. Spending was primarily to cover the rehabilitation of existing irrigation systems. Funding for researches and development has also been insufficient.

Another problem that causes inefficiencies in funding use is the agriculture bureaucracy which is one of the biggest in the country. It has been pointed out that funds have been used inefficiently because of overlapping functions among agencies (David, 2003).

Competitiveness Constraints

While world food prices have gone down and remained low, domestic prices have remained high. High production costs and the protection that the sector gets in the form of high effective tariff rates and price intervention policies particularly for rice, have kept prices high and tolerated inefficiencies in the sector.

Figure 1. Domestic vs. World Price of Rice



Source: Balisacan, 2004

How have Farmers Fared?

Table 6. Poverty Incidence (in percent)

	Overall Poverty	Rural Poverty	Urban Poverty
1985	49.3	56.4	39.8
1988	49.5	52.3	46.2
1991	45.3	55.1	35.4
1994	40.6	53.1	29.5
1997	33.0	46.3	22.5
2000	34.0	48.8	24.1

Source: National Statistics Office

Poverty continues to persist in the rural areas which situate more than 70 percent of the country's poor, a trend that has generally persisted since the 80's. The reduction of poverty incidence is also much slower for the rural sector

Table 7. AFMA Budget, GAA (in million PhP)

PARTICULARS	CY 1999	CY 2000	CY 2001	CY 2002	CY 2003	TOTAL
Irrigation	4,834	5,181	4,957	7,276	4,761	27,009
Research and Development	1,548	1,335	741	820	546	4,990
Post-harvest Facilities	361	1,809	442	366	681	3,659
Credit and Financing	343	488	167	119	123	1,240
Production Support	1,355	2,041	1,332	1,415	1,948	8,091
Others	3,171	5,781	3,811	4,444	4,230	21,437
TOTAL	11,612	16,635	11,450	14,440	12,289	66,426

Source: General Appropriations Act

[3]Estimated at cost of P100,000 per hectare.

than in the urban areas. A more disturbing index, however, is that since the 80's, the average growth in agriculture gross value added of 2.18 percent has been lower than the population growth rate of 2.32 percent. This has impaired the income per capita of farmers.

Table 8. Population, GDP and Agriculture GVA, 1980-2002 (constant price)

	Population ('000)	GDP (in PhP billion)	Agri GVA (in PhP billion)
1980	48,035	609,768	103,518
1985	54,231	571,883	104,499
1990	61,040	720,690	122,631
1995	68,341	802,224	136,616
2000	76,499	958,411	153,495
2002	79,504	1,046,083	164,091
Ave. Growth Rate (1980-2002)	2.32%	2.55%	2.18%

Source: Ponce, 2004

Table 9. Real Per Capita Income, in PhP

	Real Per Capita Income		
	Total	Rural	Urban
1991	17,343	11,088	23,702
1994	17,564	11,203	23,986
1997	21,877	12,781	31,904
1998	19,799	11,569	28,848
2000	18,915	11,211	26,918
2002	14,600	8,500	20,600
Ave. Growth	-2.1%	-1.4%	-0.4%

Source: Ponce, 2004

While on the average, the country's rice yield can be considered competitive with our neighboring countries (even higher than Thailand's yield of 2.4 MT/ha), the Philippines remains to have one of the highest costs for production. Farm inputs, transportation costs and labor costs remain high. Postharvest losses have also eaten up potential incomes. This is the reason why, despite the already high food prices in the country, farmers have not improved their incomes significantly.

Can the Agriculture Sector Sustain Its Growth?

Even as the contribution of agriculture to overall output and agriculture growth rates in many countries have gone down through the years, sustaining high growth levels in agriculture remains important particularly for transition economies. Studies estimate that for agriculture to contribute to economic and rural development, it should grow by 2 to 3 percent above the population growth rate (Johnson, 2001). Given the above mentioned constraints, sustaining sufficient growth in agriculture must thus consider whether we have already applied the available technologies and made the necessary structural adjustments to support growth in the sector. And then we ask, is there still room for growth?

Table 10. Asean and other Selected Countries, Growth Rates (in percent)

	1970-1980		1980-1990		1990-2000	
	Agri GVA	Agri Exports	Agri GVA	Agri Exports	Agri GVA	Agri Exports
Philippines	4.9	14.6	1.0	-4.6	1.9	2.4
Indonesia	2.0	20.0	4.9	4.7	2.8	6.7
Malaysia	6.5	19.3	3.8	3.1	1.9	2.4
Thailand	4.2	21.2	3.9	4.9	3.6	2.6
Pakistan	3.0	13.8	4.3	3.2	3.8	0.3
Bangladesh	1.4	2.6	1.9	-1.5	1.7	-3.9
China			5.9		4.4	
Vietnam			4.3		5.2	
Middle Income Countries			3.5		2.3	
World			2.8		1.8	

Source: Ponce, 2004

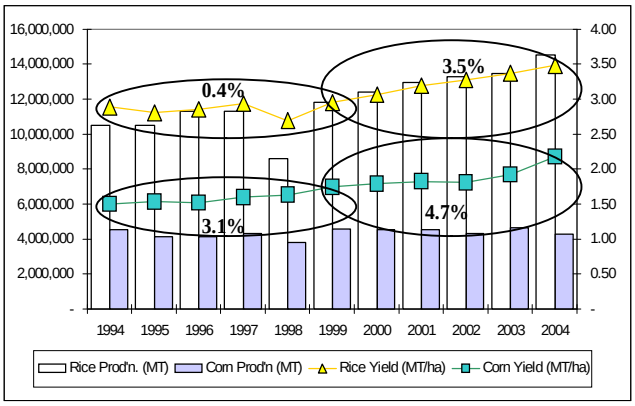
There still exists a gap between production potential and actual production. An average yield for rice of 5.4 tons/hectare can be attained for highly suitable areas and 4.2 tons/ha for moderately suitable areas, giving a potential rice yield of 24.3 million metric tons per year (Fernandez 1999). Other studies suggest a much higher yield potential of 5.7 and 7.5 MT/hectare for wet and dry seasons, respectively (Sebastian, et al., 1999). These projections, of course, assume the presence of irrigation and an ideal weather pattern that will sustain two cropping seasons. In 2003, rice yield reached 13.5 million metric tons (3.35 MT/hectare), well below the potential yield for rice.

For corn, the average attainable high-end yield is at 6 to 7 tons per hectare. Corn output in 2003 reached 4.62 million MT or an average yield of just 1.92 MT per hectare, well under the potential yield for corn.

The yield trends over the last five years, however, have shown promise for the crops sector when the yield for rice and corn has increased much faster.

Considering the work that has been done in developing high-yielding varieties, there must be focus on extension work to expand and ensure the proper use of these varieties.

Figure 2. Rice and Corn Yield (MT/hectare) and Production (MT)



BAS estimates used for 2004 production
Source: BAS

For the livestock sector, the demand is growing with increasing per capita consumption of pork products. The problem, however, has been supply related. The price of corn, which is major feed ingredient, is expected to remain high over the next two years. Local production must pick up to support the needed growth in the livestock sector. Another aspect that must be addressed is the need to control and prevent disease outbreaks which cause significant losses to the livestock industry. In 2003, losses from major livestock diseases were estimated at P6.63 billion.

Table 11. Losses from Animal Diseases

Disease	Estimated Loss (2003)
FMD	2.63
Hog Cholera	3.00
New Castle Disease	1.00
Total Loss	6.63

Source: Philippine Association of Broiler Integrators, 2004

The aquaculture industry has been the lifeblood of the fisheries sector, contributing 48 percent of fishery output and 11 percent of total agriculture output this year. The potential for further growth in the sector is very much present with the global demand for seaweeds still growing.

Growth, the Long and Short of It

For 2005, rice output is expected to slow down and even contract by 2.0 percent due to prospects of El Niño and the farmers' decisions to shift to corn (BAS, 2004). Farmers are expected to move to corn production because of the unpredictable water supply and the increasing costs of inputs to rice farming. The outlook for corn is more favorable with a projected expansion in production by 5.0 percent next year. These projected lower growth rates relative to this year's rates will slow down agriculture production unless growth in the livestock and poultry sector picks up.

Thus, in the short term, the economy can again rely on the growth of the services sector, particularly business outsourcing and telecommunications. Industry can also look at the mining sector which has recently been reinvigorated by the favorable decision of the Supreme Court for the mining industry.

In the long term, agriculture growth will remain a critical source of growth for the economy. The sector accounts not just for the output of the sector itself but for the output of manufacturing and services (all agri-business activities accounted for 70 percent of GDP in 1990). A combination of income and productivity-enhancing measures must be undertaken to allow the sector to go beyond the various constraints and attain its production potentials. Physical constraints can be countered by increasing yields through research and development and extension. Infrastructure support measures that reduce production costs, would be critical to enhance the competitiveness of the sector.

The limitations in government resources will continue to persist and will remain a significant stumbling block to sustaining the high levels of growth for the agriculture sector. The overlapping functions of the agriculture bureaucracy must be addressed. Prioritizing expenses and streamlining expenditures also have to be undertaken. Irrigation and research development and extension should top the agenda for agriculture.

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This paper was principally prepared by Mr. John Benette Mamañgun of the Microeconomics Group, under the supervision of the SEPO Director General.

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