

# **Current Trends and Programs in Labor and Employment of the Agricultural Sector of the Philippines**

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## *Abstract*

*This paper aims to show the different trends in the labor and employment of the agricultural sector of the Philippines. It is shown that one of the main problems faced by this sector is a declining trend in the population of the agricultural work force as more and more Filipinos are lured by the incomes of the service sector. The paper also tackles different programs aimed at attracting more farmers to stay in their farms and contribute to the development of the agricultural sector of the Philippines.*

## **Introduction**

According to the Food and Agriculture Organization (FAO) of the United Nations, agriculture and agribusiness are some of the “main generators of employment and income worldwide” (Food and Agriculture Organization, 2011). From this statement, it can be inferred that agriculture has a tremendous impact to the quality of life in a country. A developed agricultural industry could not only ensure food security, it

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could also provide employment to a significant fraction of the population. Although the Philippines may not exactly be categorized as developed, it can be observed that a significant segment (between 30 to 40%) of the work force relies on this sector for livelihood. Thus, the study and discussion of the trends within this sector, the problems facing its stakeholders, and the programs being implemented for the development of agriculture will be very beneficial not only to those who are within the agricultural sector, but for the whole country as well.

### Status of Agricultural Sector

In the most recent statistics (Bureau of Agricultural Statistics, 2011), agricultural production reached Php1.25 trillion. Bulk of this value came from palay, hog, chicken, banana and aquaculture production. The shares of the other agricultural products can be seen in the Tables 1 and 2.

Table 1. Value of Agricultural Production of Major Crops and Other Crops 2010  
(Bureau of Agricultural Statistics 2011)

Major Crops	2010 Value	Percent of Total Agricultural Production Value	Other Crops	2010 Value	Percent of Total Agricultural Production Value
Palay	231,844	18.5%	Peanut	879	0.1%
Corn	70,017	5.6%	Mongo	1,544	0.1%
Coconut	81,896	6.5%	Cassava	11,998	1.0%
Sugarcane	39,238	3.1%	Camote	5,464	0.4%
Banana	106,486	8.5%	Tomato	2,125	0.2%
Pineapple	10,911	0.9%	Garlic	717	0.1%
Coffee	5,488	0.4%	Onion	2,648	0.2%
Mango	17,909	1.4%	Cabbage	905	0.1%
Tobacco	2,544	0.2%	Eggplant	2,437	0.2%
Abaca	2,301	0.2%	Calamansi	2,383	0.2%
			Rubber	24,450	2.0%
			Others	42,660	3.4%

Table 2. Value of Agricultural Production of Livestock, Poultry and Fisheries 2010  
(Bureau of Agricultural Statistics 2011)

Livestock	2010 Value	Percent of Total Agricultural Production Value	Poultry	2010 Value	Percent of Total Agricultural Production Value
Carabao	10,052	0.8%	Chicken	112,973	9.0%
Cattle	20,593	1.6%	Duck	2,506	0.2%
Hog	172,543	13.8%	Chicken Eggs	33,714	2.7%
Goat	7,312	0.6%	Duck Eggs	2,872	0.2%
Dairy	469	0.0%	Fishery		
			Commercial	60,788	4.9%
			Municipal	77,654	6.2%
			Aquaculture	82,840	6.6%

Looking at historical data, it can be seen that most of the agricultural products have been steadily increasing since 2001. Among the major crops, the fastest increasing agricultural products were palay, banana, corn and coconut.

Figure 1. Production of Major Crops in Million Pesos  
(Bureau of Agricultural Statistics 2011)

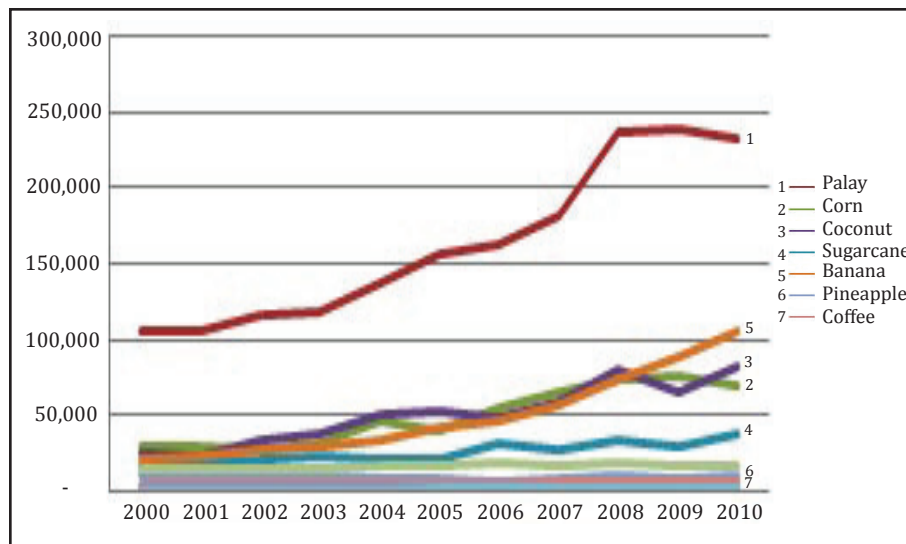
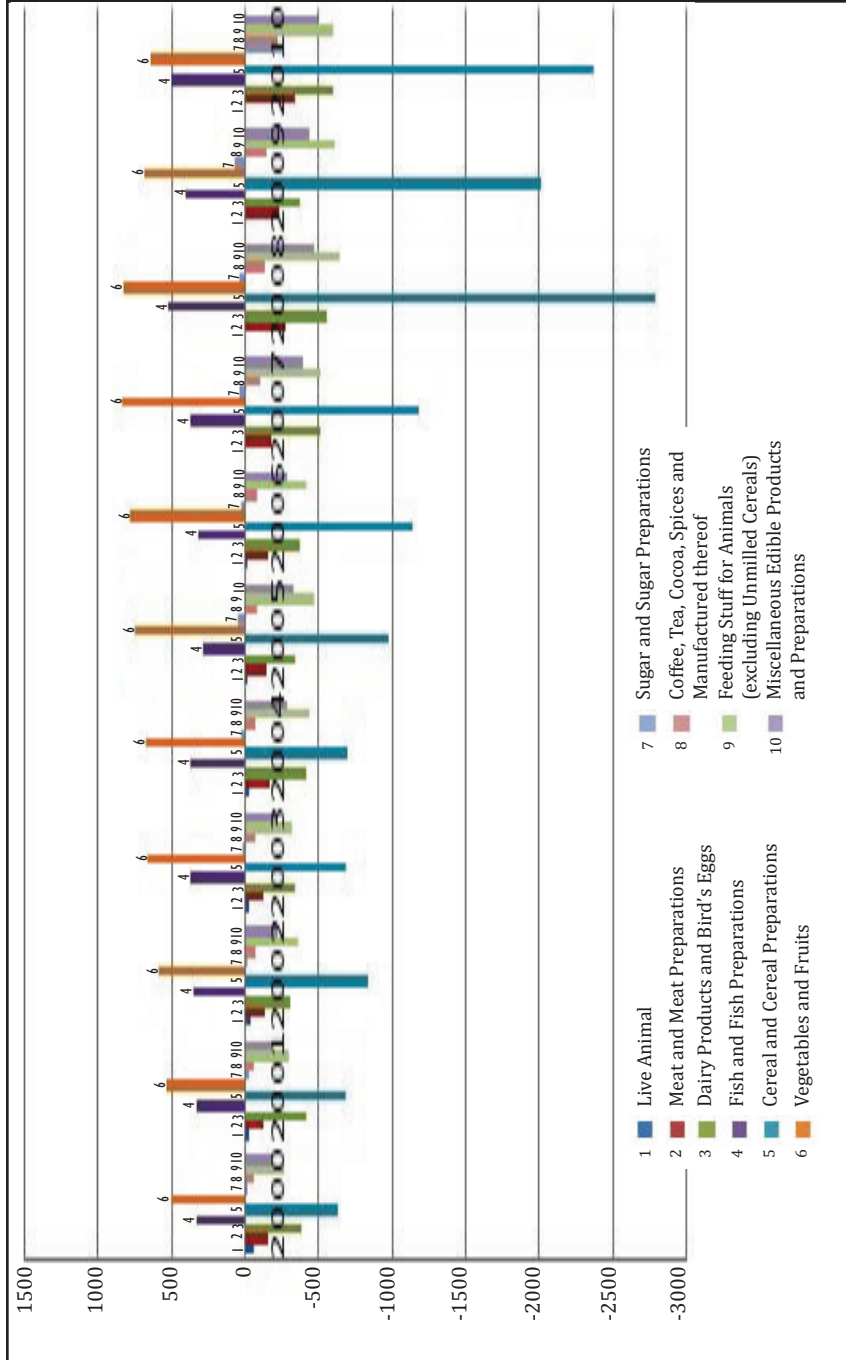


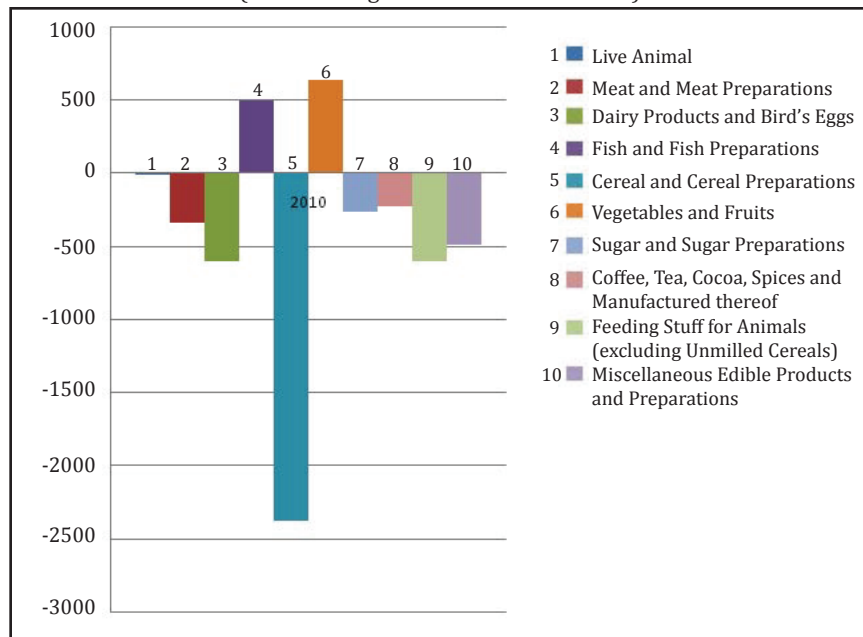
Figure 2. Net of Export and Import in Million Pesos  
(Bureau of Agricultural Statistics 2011)



Although most of the country's agricultural produce have steadily been increasing, it is important to note whether the increase in production is keeping up with the increase in demand of these products locally and overseas. To do this, we can look at the difference between the agricultural exports (+) and the imports (-) throughout the years. The information can be seen in Figure 2.

It is apparent here that in the past ten years, the Philippines has always been importing more than the amount of exports in almost all agricultural products except for vegetables and fruits, and fish and fish preparations. In the most recent year (2010), it is evident that this is still the case. Most of the imports are concentrated on cereal and cereal preparations. This category includes rice, the country's staple food.

Figure 3. 2010 Net of Export and Import in Million Pesos  
(Bureau of Agricultural Statistics 2011)



By looking at Figure 3 alone, given that the country is importing a significant amount of its food supply, it is clear that a lot of improvements must be made in the agricultural production of the Philippines. Although this problem could be aided by the increase of agricultural inputs in the production at farms, which can be seen in

the programs of the government of providing free fertilizer, planting materials, etc., this solution is not enough. The whole value chain must be studied in order to determine how the problem of self-sufficiency can be solved.

### Trends in Labor and Employment

One of the most important factors within the value chain of agribusiness is the farmer. Given the country's state, farmers become even more important because, unlike other countries that employ big machines and advanced technology in farming, the Philippines' agricultural sector is very labor-dependent. Unfortunately, for the past ten years, the proportion of the workforce in the agriculture sector has slowly been decreasing. From 2001 to 2010, the portion of the workforce has slid down from 37% to 33%, while the service sector has steadily been increasing its share from 47% to 52% (Bureau of Labor and Employment Statistics, 2011). These changes may be attributed to the migration of people, more specifically the youth, from rural to urban areas, as well as the rise of business process outsourcing (BPO) companies. Because of the lure of better compensation for their work and a higher quality of life, more and more Filipinos leave their farms and work in the cities.

Figure 4. Proportion of the Workforce in Agriculture, Industry and Services (Bureau of Labor and Employment Statistics 2011)

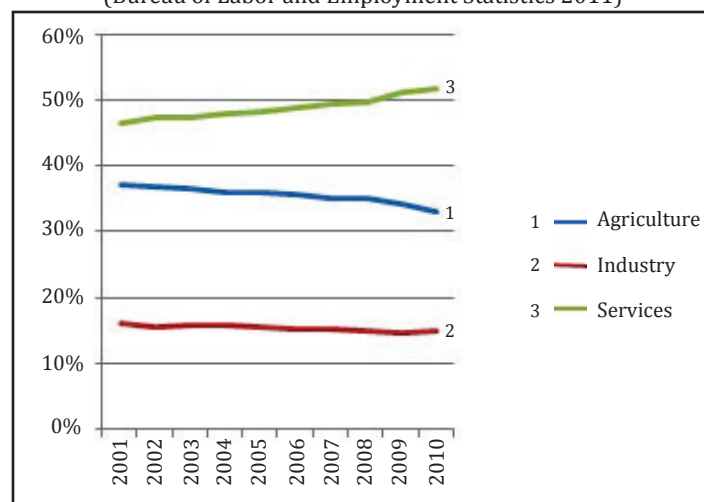


Table 3. Proportion of the Workforce in Agriculture, Industry and Services  
(Bureau of Labor and Employment Statistics 2011)

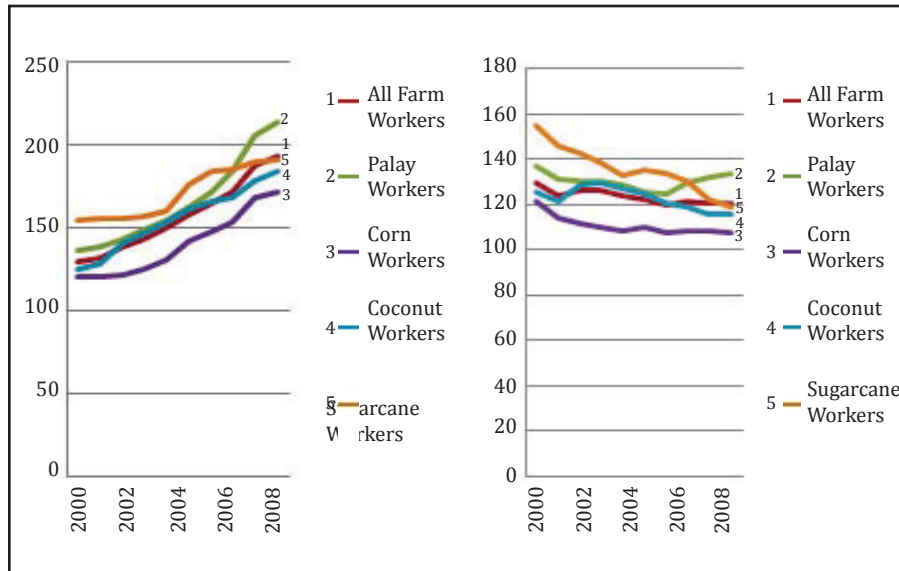
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Agriculture	37%	37%	37%	36%	36%	36%	35%	35%	34%	33%
Industry	16%	16%	16%	16%	16%	15%	15%	15%	15%	15%
Services	47%	47%	48%	48%	48%	49%	50%	50%	51%	52%

An interview with a group of coffee farmers in Cavite confirms this theory (Peji, 2010). The farmers explained that most of them were working hard in their farms in order to not only support their families financially but also, and more importantly, to be able to send their children to good schools. In the farmers' perspective, sending their children to good schools will give them a better chance of working in the big cities such as Metro Manila, and eventually help them to be able to "succeed" in life. Most of these farmers do not see agriculture as a lucrative or profitable activity anymore. That is why they do not entice their children to stay in the farms. The common perspective among the farmers who were interviewed was that working in the city leads to a better life, while working in the farm leads to a poorer state of life.

The farmers cannot be blamed for their view of the situation. Although the nominal wage rates of the farmers of rice (palay), corn, coconut and sugarcane have steadily been increasing from 2000 to 2009, their actual buying power, represented in their real wage rates, have either been static or decreasing in this same time period. This means that the increase in their income is not enough to keep up with the rising prices of basic commodities.

Thus, because of this perspective, many farmers either send their children to cities for them to look for jobs that will lift the family out of poverty, or the farmers bring their whole family to the city in order to provide a higher quality of life for them. Urban migration, as mentioned above, could be one of the main reasons why NCR has the highest unemployment rate (at least 10%) among all the other regions.

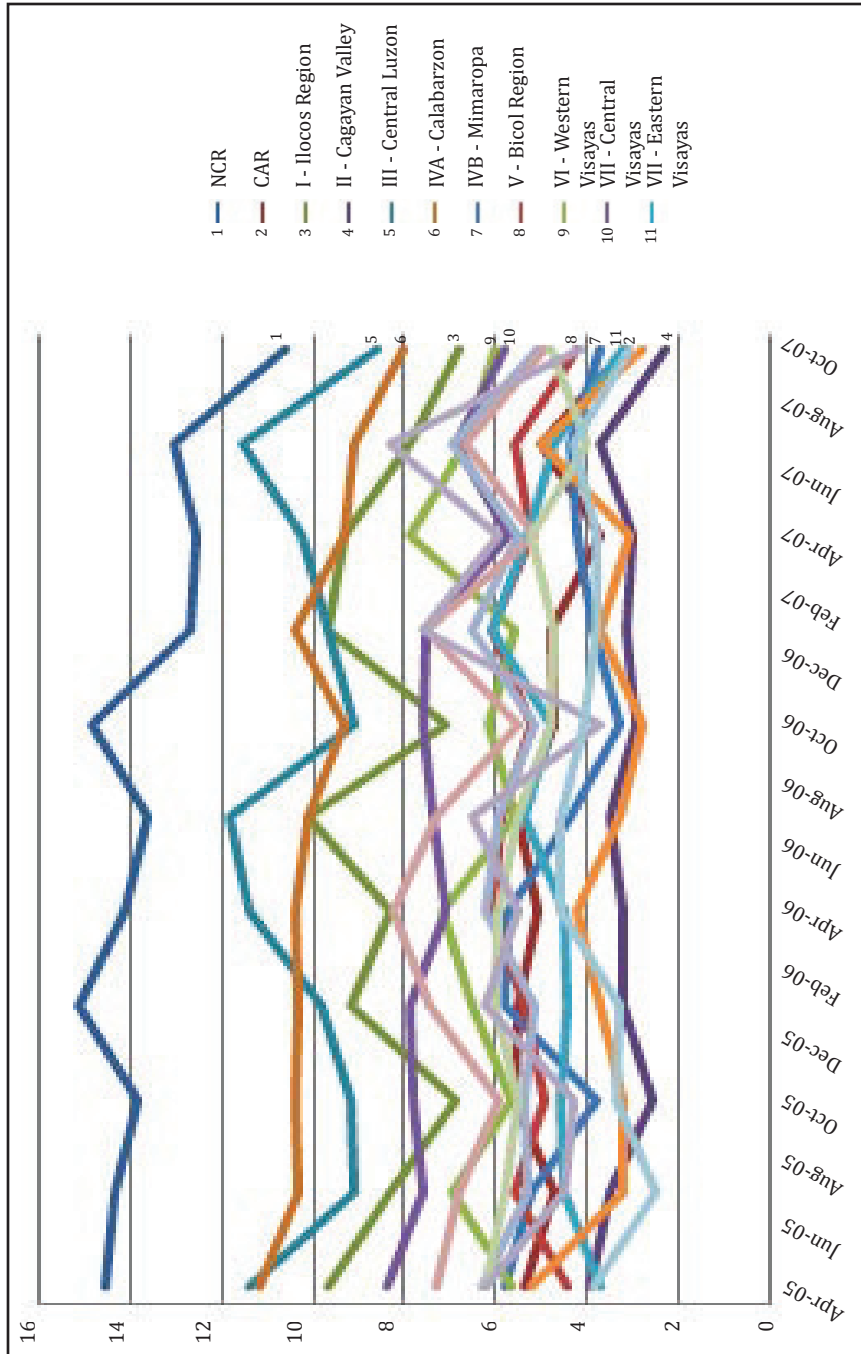
Figure 5. Nominal and Real Wage Rates of Farm Workers  
(Bureau of Agricultural Statistics 2011)



Because of these facts, it has been very hard for our country to be self-sufficient in terms of agricultural produce. Table 2 shows just how dependent our country is on imports, specifically on agricultural commodities such rice, corn, coffee, garlic and many other agricultural products. This situation is very ironic since the Philippines even has the International Rice Research Institute (IRRI), where many researchers from other countries come to study how to produce and grow our staple food, rice, when in fact, we are now one of the top importers of rice. A few decades ago, we were also a top producer of coffee in the world market, but now, about 30% of our coffee is imported from other countries such as Vietnam.



Figure 6. Unemployment Rate Per Region



Current Trends and Programs in Labor and Employment of the Agricultural Sector

Table 4. Import Dependency Ratios per Product

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Rice	7.31	8.71	12.11	9.12	9.55	16.02	14.62	14.53	18.11	14.17
Corn	9.01	3.66	6.05	2.12	0.42	1.33	4.81	2.21	0.33	4.13
Coconut	0	0	0	0	0	0	0	0	0	0
Sugarcane	0	0	0	0	0	0	0	0	0	0
Coffee	10.61	6.42	18.09	19.06	16.04	32.28	15.36	31.29	27.16	31.26
Banana	0	0	0	0	0	0	0	0	0	0
Pineapple	0	0	0	0	0	0	0	0	0	0
Mango	0	0	0	0	0	0	0	0	0	0
Calamansi	0	0	0	0	0	0	0	0	0	0
Papaya	0	0	0	0	0	0	0	0	0	0
Pomelo	0.11	0	0.02	0.46	0	0	0	0	0	0
Tomato	0.06	0.02	0.09	0	0	0	0	0	0	0
Garlic	27.2	33.09	57.93	63.44	67.22	78.19	82.26	81.78	82.93	76.11
Onion	11.08	18.88	7.78	15.98	10.8	32.62	49.49	2.2	35.18	7.7
Cabbage	0	0.04	0.08	0.09	0	0	0	0	0	0
Eggplant	0	0	0	0	0	0	0	0	0	0
Peanut	64.66	64.97	64.11	57.96	58.33	58.33	63.66	38.3	35.1	52.54
Mongo	57.15	59.96	57.85	61.42	59.34	53.58	54.24	53.43	56.04	53.8
Cassava	0	0	0	0.38	0.74	0	0.18	0	0	0
Sweet Potato	0	0	0	0	0	0	0	0	0	0
Potato	0.95	2.24	2.78	8.33	9.74	13.1	10.03	4.25	4.31	1.45
Beef	18.75	13.92	15.11	15.96	20.69	15.14	16.75	20.12	21.28	17.98
Carabeef	35.72	39.62	40.69	41.22	45.06	45.42	41.73	36.05	38.57	31.7
Pork	2.6	1.71	1.89	2.08	2.44	2.17	2.22	3.14	4.92	5.09
Chevon	0	0	0	0	0	0	0	0	0	0.03
Chicken Dressed	3.05	1.86	1.9	2.1	3	4.06	4.87	4.91	5.13	6.95
Duck Dressed	1.77	1.07	4.25	2.86	1.26	0.37	0.59	0.12	0.57	0.58
Chicken Egg	0.01	0.01	0.13	0.14	0.03	0.16	0.03	0.08	0.07	0.39
Milkfish	0	0.01	0.01	0	0.01	0	0.02	0.01	0	0.07
Roundscad	0	0.03	0.29	0.51	0.49	0.03	0.07	0.01	0.22	0.22
Tilapia	0	0	0	0	0	0	0	0.01	0.01	0
Tuna	0.88	3.21	6.97	10.23	4	9.2	5.82	5.21	5.4	13.86
Shrimps & Prawns	0.01	0.49	5.6	7.68	4.78	3.26	3.33	3.81	3.09	2.57
Crabs	0.05	0.11	0.08	0.08	0.07	0.1	0.3	0.11	0.06	0.03
Oysters	0.36	0.01	0.09	0.02	0	0	0	0	0.06	0.07

From all of these statistics, it is obvious that one of the major problems in our country is our declining agriculture industry. However, this problem also shows a potential solution to the problem of unemployment in the Philippines, more specifically in its urban areas such as the NCR. By making the agricultural industry profitable again for the farmers, their children might be enticed to stay on their farms. This could also lead to non-permanent workers in the service sector in the urban areas to leave the uncertainty of their jobs in the city and move back to their farms in the province. The following parts of this paper will discuss the different initiatives that are being done in order to revive agribusiness in the Philippines, since it is evident that a lot of benefits will be received from this kind of study.

### **Perspectives in Addressing Problems in Agribusiness**

There are two perspectives that can be taken with regard to self-sufficiency. First, the country can focus its efforts towards decreasing our country's dependency on agricultural imports by increasing production, with products that have high import ratios. The other perspective is to focus efforts on developing agricultural products, which the country is currently making large quantities of surplus. In both perspectives, there are a number of ways to achieve the proposed objectives. This is because for each agricultural product, its value chain is composed of many different parts.

The agricultural supply or value chain does not only involve the interaction between farmers and the consumers. It also includes the financiers of the farmers, who provide the capital needed by farmers to buy the needed inputs for production. The farmer then selects the agricultural product he/she will focus on. After the production process, the farmer harvests the product with the help of either his/her family or hired labor. After harvesting, the farmer may choose to sell the raw product immediately, or he/she can process the product further in order to fetch a higher price for the product. Doing so, however, will involve more costs for the farmer, and thus, if the marginal increase in income is small, the farmer will just choose to sell immediately without going through these additional processes.

The farmer can either sell directly to the market, or through traders and middlemen. This is the norm for farmers, especially if the cost of transporting the production is too high for the farmer to cover. These

traders then sell the production they have accumulated to other traders, processors and manufacturers, who will transform the produce into products that can be marketed through different distribution channels such as retailers and wholesalers. Finally, these will be made available to the consumers. It is evident in this process that there will be many people affected by even the slightest of changes in an agribusiness system because, as we have already seen in previous tables, 33% of the workforce is engaged in agribusiness.

Because of the complex system, it is evident that there are a number of factors that can be tweaked in order to increase the final output of a specific agricultural product. If we think of the agribusiness supply chain as a machine, we can picture that the many different actors stated above are its component parts. Thus, making small improvements on the different parts of the machine can, on the positive side, increase the total output of the machine. On the negative side, however, it could wear down the other parts of the machine.

Since the agricultural industry is a very complex system, it is suggested in a collaborative study of the Curtin University of Technology and University of the Philippines in Mindanao that using a pluralistic and systems framework should be employed to adequately solve the problems in the agriculture industry (R. B. Murr-ray-Prior, 2003). The variables in solving these particular problems should not be studied one at a time, as what is usually done when solving a problem. These variables should be studied side-by-side with other variables. These variables include technology, information systems, infrastructure, power relationships, knowledge dissemination and others. These are the processes in the agricultural "machine" that should be studied in order to determine an adequate solution. By simultaneously studying all of these constraints and variables, one cannot offer a solution that is based only on a single variable. The solution that will be formulated will involve multiple variables. This will produce better and more far-reaching solutions to the problems besetting an agricultural system. In the next part, programs for reviving different parts of the agricultural system will be discussed.

### **Programs for Reviving Agribusiness**

The programs that will be discussed in this section will only focus on rice, coffee and coconut. The author however does not mean to imply that these are the only or are the most important agricultural products

that our country must develop. These are chosen in order to show how different strategies can attack the same objective of increasing production of a certain agricultural product. This becomes the main objective because when production is increased, so does the need to sustain this increase, and thus, more workers will be employed, i.e. there will be more jobs available in the country.

One agricultural product in the Philippines that has one of the highest importation rates relative to the amount produced is rice. In 2009, the import dependency ratio for this product was 14.17%. This is a serious problem for the Philippines because dependency on importation greatly exposes the consumers to price volatility. If a country that exports rice to the Philippines suddenly decides to stop the exportation of rice, it will trigger a rice shortage in the Philippines, causing rice prices to drastically go up. This would not be such a huge problem if not for rice being the Filipinos' staple food. Unlike other highly imported products such as garlic, mango and peanuts, rice is a basic necessity for most Filipino families. This is why the current administration is targeting rice self-sufficiency by 2013. In order to do this, P6.181 billion is being allocated for the rice program of the Philippines, with P4.533 billion allocated to the Department of Agriculture (DA)'s regional offices and the remaining P1.647 billion to be distributed among the Office of the Secretary, the Bureau of Agricultural Statistics (BAS), Bureau of Soil and Water Management (BSWM), Bureau of Plant Industry (BPI), and the Agricultural Training Institute.

To achieve rice self-sufficiency, the DA will use the Food Staples Self-Sufficiency Program Roadmap (FSSR). This program has three main strategies, namely to increase and sustain production of grains, to improve farm mechanization (to reduce post harvest losses), and to manage consumption. This program will employ many different measures to attain rice self-sufficiency by 2013. The first strategy basically involves the distribution of quality seeds and plant varieties to the farmers. This will help the farmers produce better rice yields. This part of the program will be coursed through the regional offices of the DA, where seed banks will be setup. In addition to this, the DA also sees the need to help finance the farmers' capital outlay at the start of a certain production period. This will be coursed through the Land Bank of the Philippines. This adds to the array of options for the farmers for their financing needs, because most farmers seek financial help either from the traders, whom they sell their production to, or from different farmer cooperatives.

The government will also help different farmer cooperatives to eventually own top-of-the-line rice mills. This will help farmers get more

income from their harvest by providing them with the capacity to do post-harvest processing at a lower cost. Usually, farmers rent single-pass rice mills during harvest season, which can only recover about 50% of the rice that is fed into the machine. On the other hand, the mills that will be provided by the government are multi-pass rice mills, which can increase this recovery rate to about 65 to 70%. Thus, this can greatly increase the yield of rice farmers, and make their trade more profitable.

The program will also cover the increase of irrigation serviceable areas in the country. These efforts, done mainly through the BSWM, will help the farmers decrease their costs of production as well as increase the quality and value of their grains, which will then translate to a higher profit. If this is successful, the program could help increase the attraction of rice-farming and thus stop the outflow of workers from this sector.

In addition to the rice-specific strategies stated above, the government will also continue projects that will increase the efficiency of transportation of agricultural products, including rice. This includes the construction of better farm-to-market roads, and the rehabilitation of existing roads.

It is noticeable that each of the strategies being employed by the government does not only attack the problem of rice self-sufficiency by focusing only on a single variable. The program takes a pluralistic, integrative approach by focusing on multiple variables in rice production at the same time.

Another agricultural product that has one of the highest importation rates is coffee. Only about 70% of the Philippines' coffee demand is supplied by local production. The other 30% is sourced overseas, usually from neighboring southeast Asian country Vietnam. Because of this, and the growing popularity of coffee among Filipinos, certain groups have been trying to address the issue of self-sufficiency in coffee. Three groups have been very active in the promotion and development of the coffee industry in the Philippines. These are Nestlé Corporation, the Philippine Coffee Board and the Philippine Coffee Alliance. These three groups employ very different strategies to increase the production of coffee.

Nestlé Corp., through its Nestlé Experimental and Development Farm (NEDF), provides free lectures and trainings for farmers on how to better grow and manage their farms. The farmers are provided with the latest and most modern techniques in growing coffee beans. Note that these lectures are free, but the coffee farmer must visit the NEDF in Tagum, Davao. Although Nestlé will provide food and accommodations,

the farmers must pay their own fares to get to the demonstration farm. Also, on this demonstration farm, coffee seedlings are grown, and are then sold to various groups (the farmers, the government, other agencies, etc.) at near and even sometimes below cost. The rationale for doing this is that Nestlé has such a huge hold on the market of coffee beans in the country—the corporation buys about 80% of the total coffee production of the Philippines—that most of the production of coffee beans of these seedlings will eventually go back to the company. This is not only beneficial to the various groups who need the coffee seedlings but also for Nestlé, which has little or no coffee farms in the Philippines. This strategy can be considered more of an investment rather than corporate social responsibility, although this strategy does help include more farmers in the coffee industry.

Another way Nestlé is helping coffee farmers is through its Satellite Buying Stations. These buying stations are established in various coffee-growing areas in the Philippines. The rationale for doing this is to cut the transportation costs of coffee farmers. By bringing the buying stations closer to the coffee farmers, it will be easier for the farmers to earn more. Most coffee farmers usually just sell their coffee production to middlemen and traders instead of selling directly to Nestlé, because selling to Nestlé will involve additional processes such as drying, dehulling and transportation of the coffee beans—processes that will entail extra capital on the part of the farmers. Coffee farmers also take the quality of their production into consideration, since Nestlé has stricter standards for the quality of the coffee beans while the middlemen and traders do not. Moreover, most farmers are compelled to sell their production to their respective financiers because most of them are already in debt, and their production serves as the payment for these debts. Since most traders and middlemen, after accumulating enough coffee beans, in turn sell their production to Nestlé, this would mean that farmers are getting less income for their production. Thus, by making the buying stations of Nestlé more accessible to the common coffee farmer, Nestlé helps the farmer earn more from his/her production. However, one problem with Nestlé's buying stations is that they only buy robusta coffee beans, the variety of coffee used for the instant coffee business of Nestlé. Although the stations may also buy specialty coffee beans such as arabica, which should be priced higher than robusta, they only buy these beans at the same price as robusta. Thus, most specialty coffee farmers do not sell their beans to Nestlé.

The Philippine Coffee Board also works toward developing the coffee industry in the Philippines. Its main strategy is through coffee farm rejuvenation. The PCB, together with the government, provides assistance to farmers in making their untended coffee farms productive again. Through this program, the group provides technical assistance to coffee farmers with the help of its partner academic institutions such as the Cavite State University. It also provides coffee seedlings and fertilizer for the coffee farmers. We can say that this strategy is more of an input-intensive strategy, since the main objective is to provide the necessary inputs of production to the coffee farmers.

The newly-formed Philippine Coffee Alliance has a different approach. Instead of increasing the inputs in coffee production, the approach of PCA is to provide farmers the opportunity to increase the value of their production by providing small communities the capability of doing post-harvest processing, such as milling, dehulling and roasting. One of the founders of the group actually invented a small-capacity coffee roaster, which can cater to the roasting needs of a small community of coffee farmers. Unlike most of the available coffee-roasting equipment in the Philippine market, which need large amounts of coffee beans in order for their operation to be profitable, this coffee roaster is specifically made for small-time farmers who do not have large coffee outputs. The PCA asks the coffee-farmer community to organize themselves before they are provided with this coffee roaster. The group also provides assistance to coffee farmers in terms of marketing and distribution through Arengga and the 14 Days Coffee. The group also practices fair trade with their dealings with the coffee farmers.

The PCA, however, only targets specialty coffee farmers. This includes farmers of arabica, liberica, excelsa and civet coffee. The PCA's philosophy behind increasing value of production is that if a farmer sees that he/she is profiting from his/her production, then the farmer would really put effort into producing quality coffee beans. With the assistance of marketing and distribution, the farmers feel that they are actually selling their own brand of coffee, and because of this, they are motivated to be more productive. This opportunity in increasing profit will also be seen by other farmers, which might encourage them to shift toward the production of coffee beans. It is apparent how this approach is different with the previously stated strategies for increasing agricultural output.

Among the agricultural products of the Philippines, the one with that has been most talked about recently is the coconut. Unlike the previous two examples of agricultural products, the country has a self-



sufficiency ratio of 100.01% in 2009 for coconut. This basically means that we are blessed with an abundance of coconuts. It has recently been making news because Pepsi Corporation, American beverage company Vita Coco and its local affiliate Fiesta Coco Equity have made known their plans of investing in the Philippines because of the high production of coconut. Although the coconut tree, touted as the “tree of life”, has an abundance of uses and products that can be extracted from it, the main product these companies are looking into is coconut water. These companies are going into this business because it is evident in the global market that healthy products are becoming more and more popular, and one of the products riding this trend is the coconut water. Because most people are becoming more and more health-conscious, the demand for a product like this is rapidly increasing. Thus, these companies are pledging to invest heavily in our coconut industry. In addition to the boost these investments will give coconut farmers, many jobs will be created in order to run the factories that will be built. Also, with the entrance of these players into the market, coconut prices will increase due to increasing demand for it. This will then increase the income of families dependent on coconut, which according to the Philippine Coconut Authority, comprises of one-third of the population of the Philippines.

### **Conclusion**

In the examples stated above, it can be seen that there are a plurality of ways in which to increase agricultural production and employment in agribusiness. Although there may be differences between the crops, most of the agricultural products have very similar value chains. Thus, a program that caters to a specific agricultural product, if it demonstrates that it can successfully fulfill its objectives, could actually help in the formulation of a new solution for a completely different type of agricultural product. If the programs that are shown above could be replicated, improved upon and applied to other parts of the agricultural industry, this could help the problems of poverty and joblessness in our country.

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