08 Expanding Economic Opportunities in Agriculture, Forestry and Fishery

Chapter 8

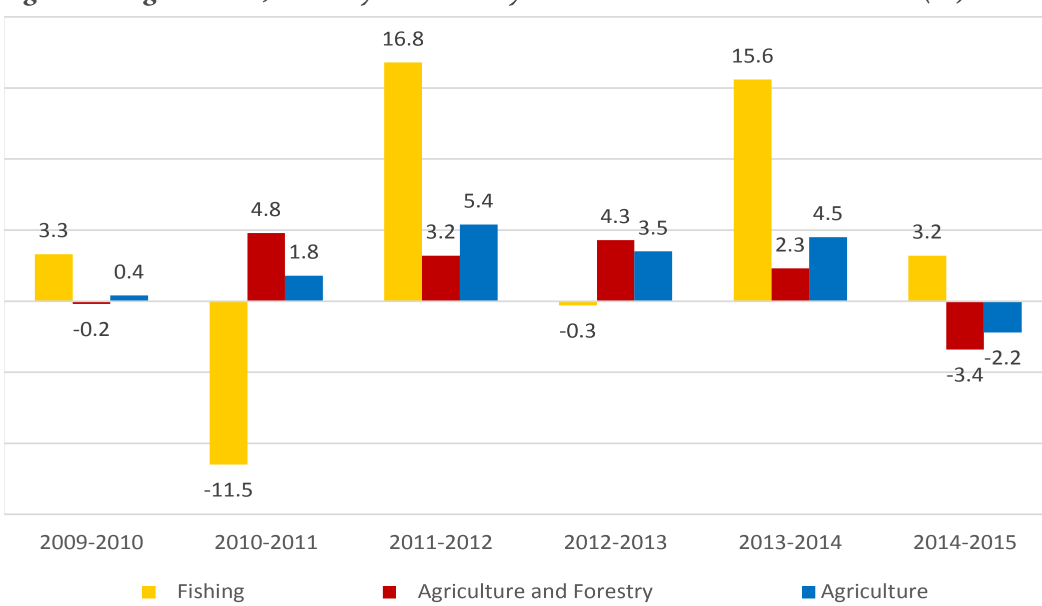
Expanding Economic Opportunities in Agriculture, Forestry and Fishery

The agriculture, fisheries, and forestry (AFF) sector is critical in generating employment for more than half of the region's labor force, which in turn can reduce poverty and inequality among the poor in the rural areas. AFF is also key to providing raw materials to the manufacturing and service sectors, resulting in forward linkages in terms of higher-paying and more stable job opportunities. Intensifying efforts to revitalize the AFF and harnessing its growth potentials are needed to promote more inclusive development. Given the sector's links to agribusiness, interventions and investments will be channeled to expand existing opportunities and develop new ones, thus, inducing greater participation of small farmers and fisher folks.

Assessment

Production in this sector covers crops, livestock, poultry and fishery. In terms of the gross value added (GVA) contribution to the GRDP, the total output share of the agriculture sector has declined from 32.2 percent in 2010 to 26.5 percent in 2015. Growth is fluctuating posting a 2.2 percent decrease in 2015 due to extreme dry season. The negative growth in fishery production is due to the scarcity in tuna stock and the fishing ban.

Figure 7: Agriculture, Forestry and Fishery Gross Value Added Growth Rate (%)



Source of data: PSA XII

Crops

Rice Self-sufficiency Ratio

The region remains as the top contributor of rice production in Mindanao accounting for 32 percent of the island's total rice production and ranks 5th in terms of national production contribution. The rice-sufficiency level in the region, however, decreased by 6.25 percent from 128 percent in 2014 to 120 percent in 2015.

Palay Production and Productivity

The region's rice productivity remains sufficient to sustain positive food security, however, a decline in the region's production since 2013 was experienced due to constraints, such as the decrease in areas harvested, both for irrigated and rainfed areas. Since 2013, harvested areas experienced a slight average annual decrease of 0.3 percent. Other production constraints included the lack of post-harvest facilities, lack of irrigation facilities, non-conformance of some farmers to the region's cropping calendar, and shocks, such as the El Niño phenomenon and pest infestations.

Table 11: Rice Production, Region XII, 2011-2015 (in metric tons)

AREA	PRODUCTION					GROWTH RATE			
	2011	2012	2013	2014	2015	2011-2012	2012-2013	2013-2014	2014-2015
Irrigated	1,017,609	1,028,961	1,101,859	1,115,486	1,069,446	1.12	7.08	1.24	-4.13
Rainfed	226,539	241,940	245,787	249,363	222,198	6.80	1.59	1.45	-10.89
TOTAL	1,244,148	1,270,901	1,347,646	1,364,849	1,291,644	2.15	6.04	1.28	-5.36

Source of data: BAS XII

Table 12: Palay Area Harvested, Region XII, 2011-2015 (in hectares)

AREA	AREA HARVESTED					GROWTH RATE			
	2011	2012	2013	2014	2015	2011-2012	2012-2013	2013-2014	2014-2015
Irrigated	263,305	263,387	270,123	266,223	263,726	0.03	2.56	-1.44	-0.94
Rainfed	80,315	82,598	80,223	80,683	76,212	2.84	-2.88	0.57	-5.54
TOTAL	343,620	345,985	350,346	346,906	339,938	0.69	1.26	-0.98	-2.01

Source of data: BAS XII

Corn Production and Productivity

Production of yellow corn posted positive growth at an average of 2.48 percent, from 916,746 MT in 2011 to 1,005,386 MT in 2015. However, a 6.29 percent decrease in yellow corn production was experienced between 2014 and 2015 due to the adverse effects of the El Niño phenomenon.

White corn also experienced negative production growth throughout the period, posting an average decline of 1.66 percent from 2011 to 2015 along with a decrease in areas harvested for white corn at an average of 2.84 percent from 2011-2015. The decrease in production and area utilized is attributed to market preferences because white corn is usually produced for human consumption. Changes in the preference of consumers contributed to lower white corn production.

Table 13: Corn Production, Region XII, 2011-2015 (in metric tons)

AREA	PRODUCTION					GROWTH RATE			
	2011	2012	2013	2014	2015	2011-2012	2012-2013	2013-2014	2014-2015
White	253,808	241,059	269,571	265,174	233,889	-5.02	11.83	-1.63	-11.80
Yellow	916,746	960,272	1,036,036	1,072,891	1,005,386	4.75	7.89	3.56	-6.29
TOTAL	1,170,554	1,201,331	1,305,607	1,338,065	1,239,275	2.63	8.68	2.49	-7.38

Source of data: BAS XII

Table 14: Corn Area Harvested, Region XII, 2011-2015 (in hectares)

AREA	AREA HARVESTED					GROWTH RATE			
	2011	2012	2013	2014	2015	2011-2012	2012-2013	2013-2014	2014-2015
White	136,648	130,601	133,318	130,093	121,494	-4.43	2.08	-2.42	-6.61
Yellow	290,402	298,718	296,689	298,463	294,906	2.86	-0.68	0.60	-1.19
TOTAL	427,050	429,319	430,007	428,556	416,400	0.53	0.16	-0.34	-2.84

Source of data: BAS XII

High Value Commercial Crops Production and Productivity

For high value commercial crops (HVCCs), rubber posted a significant decline of about 27.42 percent between 2014 and 2015, and the highest annual average decline among the HVCCs, at about 4.55 percent This was followed by rambutan at 7.28 percent, asparagus at 6.71 percent, coffee at 3.72 percent, and banana at 3.68 percent for the period 2011-2015. Other crops that experienced an alarming decline in their annual average growth are asparagus at 4.41 percent and sugarcane at 3.78 percent.

Crops that posted high annual average growth rates are lanzones at about 39.11 percent and rambutan at about 13.34 percent. Although lanzones posted the highest average increase in growth, its production between 2014 and 2015 only posted t 5.55 percent compared to a 57.25 percent growth between 2013 and 2014.

Table 15: Productivity of High Value Commercial Crops, Region XII, 2011-2015

COMMODITY	2011-2012	2012-2013	2013-2014	2014-2015
Coffee	1.62	3.67	-3.08	-3.72
Banana	5.52	2.61	1.51	-3.68
Mango	2.05	3.08	8.47	-1.87
Rubber	6.76	1.89	0.59	-27.42
Oil Plam	8.51	9.58	8.82	5.30
Coconut	11.97	5.63	2.99	8.22
Pineapple	0.66	0.75	-0.23	-1.23
Asparagus	19.38	-21.78	-8.51	-6.71
Sugarcane	9.82	-18.52	-13.89	7.49
Durian	5.67	21.41	5.60	1.87
Lanzones	64.21	29.44	57.25	5.55
Rambutan	50.97	6.47	3.23	-7.28
Papaya	3.07	-0.36	2.05	-1.50

Source of data: DA XII

Livestock and Poultry Productivity

Livestock and poultry production in the region generally declined with only cattle production posting positive growth. The decrease in poultry production was attributed to a highly contagious disease among avian species and domestic poultry called the Newcastle Disease (NCD), an acute respiratory disease triggered by changing weather conditions.

Table 16: Livestock and Poultry Production, Region XII, 2011-2015 (in metric tons)

AREA	AREA HARVESTED					GROWTH RATE			
	2011	2012	2013	2014	2015	2011-2012	2012-2013	2013-2014	2014-2015
Hog	117,849	118,056	118,252	119,811	118,371	0.2	0.2	1.3	-1.2
Chicken	39,398	43,003	48,239	47,970	47,142	9.2	12.2	-0.6	-1.7
Cattle	19,274	18,578	18,603	17,961	19,237	-3.6	0.1	-3.5	7.1
Carabao	12,638	12,308	12,512	12,330	10,872	-2.6	1.7	-1.5	-11.8
Goat	6,437	6,327	6,203	6,275	6,036	-1.7	-2.0	1.2	-3.8
Duck	3,789	3,756	3,796	3,522	3,466	-0.9	1.1	-7.2	-1.6
TOTAL	199,385	202,028	207,605	207,869	205,124	1.3	2.8	0.1	-1.3

Source of data: BAS XII

Fishery

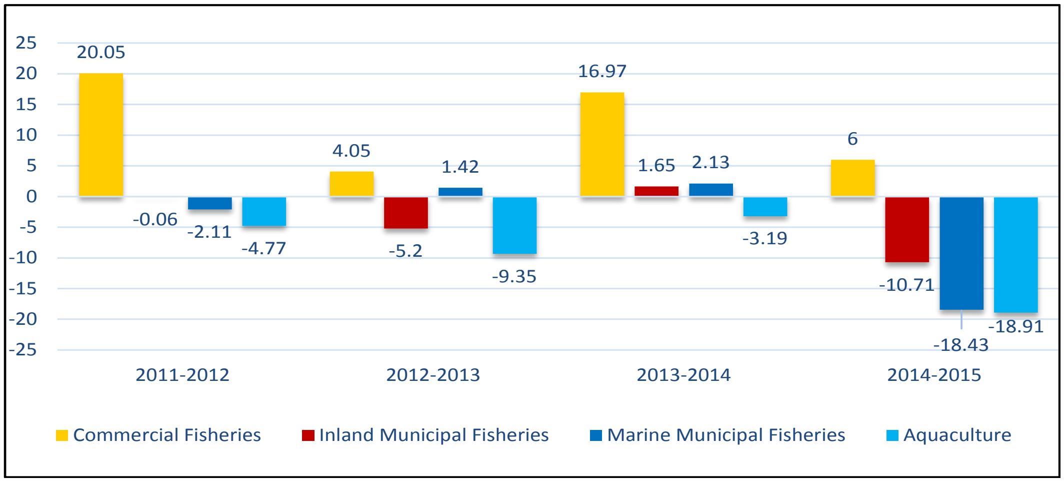
The region's fishery production levels experienced fluctuations during the period where significant declines were observed for Inland, Marine and Aquaculture fisheries. However, Commercial fishing which constitutes the majority of the fishery production in the region, posted decelerated growth. The deceleration was due to lesser fish volume caused by reduced unloading of fishing vessels and limited fishing activities due to the fishing ban in the high seas. Inland, Marine and Aquaculture fisheries in the region decreased in production capacity due to less fishing trips affected by high cost of fuels, seasonal typhoons and heavy rains during the rainy season. During the dry season, the reduced waters in the marsh and other inland water bodies decreased the appearances of seasonal species affecting the volume of production.

Table 17: Fish Production, Region XII, 2011-2015 (in metric tons)

FISHERY	ACTUAL (MT)					GROWTH RATE (IN PERCENT)			
	2011	2012	2013	2014	2015	2011-2012	2012-2013	2013-2014	2014-2015
Commercial Fisheries	174,840	209,899	218,390	255,443	270,768	20.05	4.05	16.97	6.00
Inland Municipal Fisheries	26,200	26,185	24,824	25,233	22,531	-0.06	-5.20	1.65	-10.71
Marine Municipal Fisheries	21,468	21,014	21,312	21,767	17,755	-2.11	1.42	2.13	-18.43
Aquaculture	21,468	21,014	21,312	21,767	17,755	-4.77	-9.35	-3.19	-18.91

Source of data: BFAR XII

Figure 8: Growth of Actual Fish Production, 2011-2015, In Percent



Source of data: PSA XII

Land Distribution and Land Rights

The 2011-2016 implementation of Comprehensive Agrarian Reform Program (CARP) and its extension, Comprehensive Agrarian Reform Program Extension with Reforms (CARPER) in the region positioned the farmers at the center of development. However, the program encountered constraints such as strong resistance from landowners as lands to be covered are small in size and predominantly privately owned, as well as the slow land valuation and payment of land compensation and continued verification procedures of the landholdings.

Table 18: Land Distribution and Land Rights, 2011-2016

INDICATORS	YEAR					
	2011	2012	2013	2014	2015	2016
Land Tenure Services						
1. Land Distribution						
Land distributed under CARP (Ha)	32,721	41,489	40,702	43,236	8,404	2,971
2. Land Survey Approved						
Land surveyed and approved (ha)	31,220	33,056	36,823	28,570	12,608	2,479
Collective lands surveyed and approved (Ha)	10,567	3,401	10,568	4,752	3,108	899
3. EP/CLOA Registration						
Area placed under LAD coverage (Ha)	32,721	41,489	39,145	45,931	6,954	5,876
4. Leasehold Operation						
Area covered by registered leasehold contracts (Ha)	3,590	3,564	2,687	1,279	2,009	1,331
Agrarian Legal Services						
1. Adjudication of Cases						
Cases resolved (No.)	101	251	288	194	236	164
2. Agrarian Related Cases						
Cases resolved (No.)	1,103	1,959	1,657	2,186	2,006	1,453
Agrarian Reform Communities						
1. ARCs established/developed (No.)	3	13	13	14	16	14
2. ARB organizations assisted (No.)	316	386	595	492	449	512
3. No. of ARBs provided with microfinance	282	5,791	2,826	2,543	2,820	2,573

Source of data: DAR XII

Challenges

The Region continues to be confronted with low levels of production and productivity in the agriculture, fishery, and forestry sector. This poor performance of the sector is mainly attributed to the following:

- Low productivity and returns to agricultural employment due to the limited financial capacity access to government credit facilities; inadequate support facilities such as irrigation, farm-to-market roads and unutilized pre- and post-harvest facilities; weak implementation and promotion of integrated diversified farming system for expansion of production areas for priority industry clusters; low level adoption of technology and good agricultural practices (GAP); and the stringent requirement to access equipment for farm mechanization.

- Producers lack the capability to develop their raw materials through conversion to profitable products by value adding as well as low diversification and linkages. They also failed to take advantage of the growing export market due to lack of market linkages that would allow the selling of produce at higher prices without the intervention of middlemen.

- Declining fish stock and fishing ground restrictions in Indonesian waters contributed to a decrease in tuna catch.

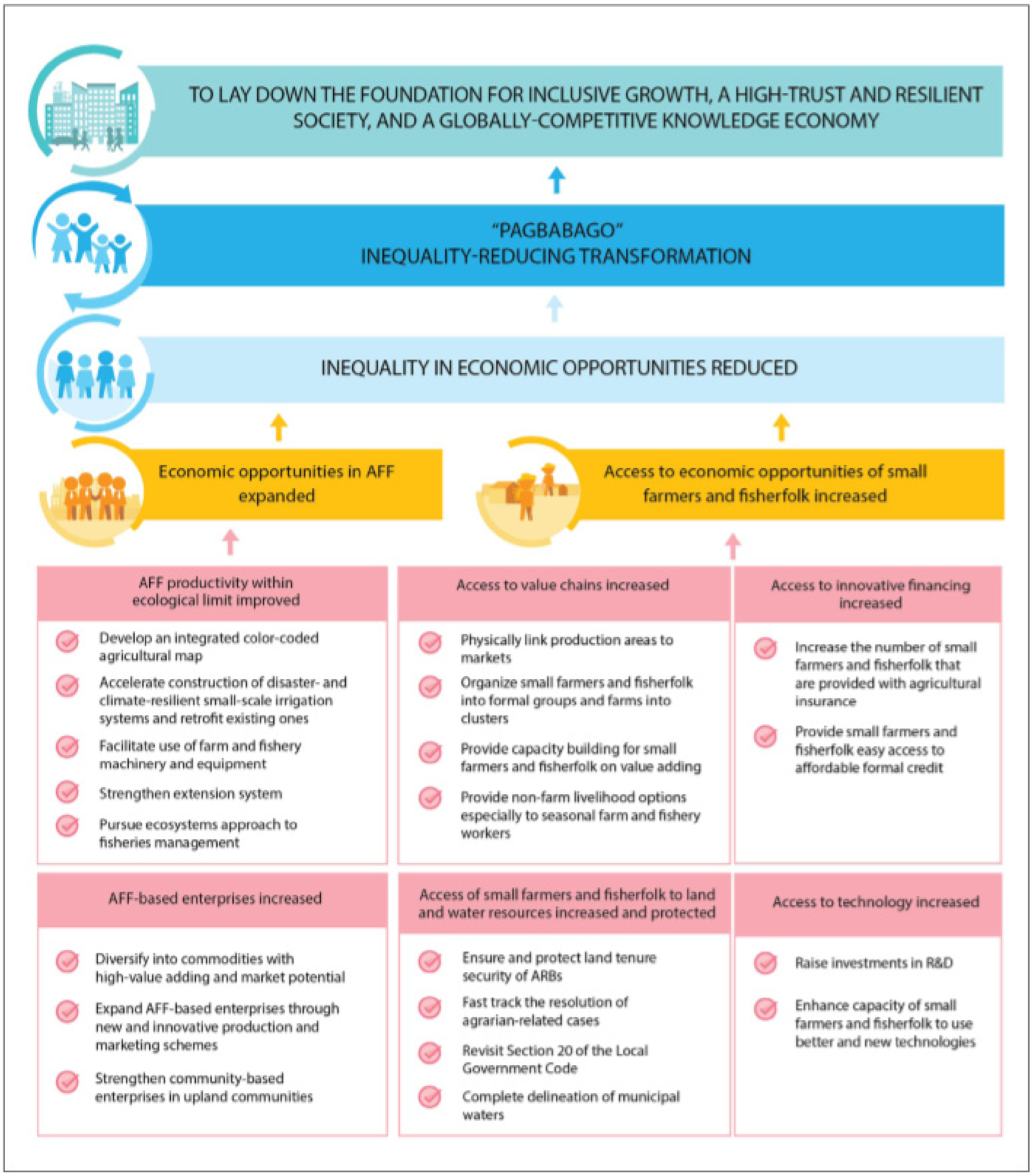
- Poor adaptive capacity of agriculture and fishery sectors to climate variability and unpredictability due to climate change and global uncertainty contributed to their negative performance in 2015.

- Resource degradation contributed to lower economic productivity and is aggravated by the destruction of watershed areas, widespread upland cultivation undermining resource management, rapid degradation of topsoil and downstream siltation.

- Unregulated and arbitrary conversion of productive agricultural lands to non-agricultural uses.

- Unresolved issues on land distribution and land rights are attributed to the increasing caseloads of each legal officers that affect the speed of resolution of cases. The inability to conduct on-site or actual ocular inspection and investigation of landholdings due to existing unstable peace and order condition in the locality and/or by reason of the intense enmity between the contending parties over the subject land also contributed to the non-resolution of issues on land rights.

Figure 9: Strategic Framework to Expand Economic Opportunities in Agriculture, Forestry, and Fisheries, 2017-2022



Priority Strategy

The priority strategies are aimed at increasing productivity and competitiveness of agriculture and fishery production and being able to rebound from the impact of climate change.

Rice Productivity

- Sustain processing of premium quality rice for global competitiveness
- Increase adoption of Hybrid Rice seeds
- Increase production of Organic Rice
- Lower cost of production inputs
- Develop and use drought and flood resistant rice varieties

Corn Productivity

- Intensify farm mechanization and post-harvest facility support
- Facilitate access to production credit (Sikat Saka on Corn)
- Adopt cost-reducing technologies
- Strengthen market forum/matching
- Increase buying support price and capacity to purchase
- Implement Integrated Pest and Disease Monitoring

HVCCs Productivity

- Provide seeds/planting materials
- Enhance study on pest and disease management
- Support small-scale irrigation implementation
- Enhance research and development
- Provide support for the acquisition of processing equipment and machinery
- Establish community-based production, processing, and post-harvest facilities
- Establish seed processing facility

Livestock

- Improve genetic potential of breeder stocks
- Maintain and upgrade livestock and poultry production centers
- Establish Multiplier Farms
- Undertake forage and pasture development
- Strengthen Animal Health Programs
- Conduct enhancement training on meat processing
- Set up Regional Broiler and Swine-Information and Early Warning System
- Provide support incentives to Agriculture Extension Workers (AEWs) and Meat Inspectors (MIs)
- Establish Multiplier Farms in local government units (LGUs)

Fishery

- Provide funding and support for the culture and production of high value fish species like Lapu-lapu and Maya-Maya.
- Intensify the promotion of commercial species of bangus, tilapia, shrimps, crabs

Land Distribution and Land Rights

- Sustain the maintenance of Web-based Legal Case Monitoring System (LCMS) for accurate monitoring of case progress and evaluation of the performance of adjudicators and legal officers
- Maintain continuous competency enhancement for DAR Lawyers and Adjudicators through conduct of assessments and workshops

Priority Legislative Agenda

- Extension of Notice of Coverage (NOC) Issuances
- Distribution of the balances in the Land Acquisition and Distribution (Private Agricultural Lands and Non-PAL)
- Enactment of the Accelerated Irrigation Act, an act to promote rural development by undertaking a six-year accelerated irrigation program for the construction of irrigation projects in the remaining unproductive, un-irrigated but potentially irrigable lands
- Amendment of RA 8178 of 1996 or the Agriculture Tariffication Act of 1996 that would establish a tariffication system for the food staple beyond 2017

Results Matrix

In pursuit of a resilient and high trust society partnered with a globally competitive knowledge economy, towards inclusive growth, there is a need to reduce inequalities in economic opportunities within the AFF sector. This could be realized by opening up opportunities for small farmers and fisherfolks by increasing their access to the value chain, financing, and technology adoption. The growth in this sector should take into consideration the region's ecological limits to protect the region's land and water resources.

Table 19: Results Matrix for Expanding Economic Opportunities in Agriculture, Forestry, and Fisheries, Region XII, 2017-2022

INDICATOR	BASELINE		END OF PLAN RESULT
	YEAR	VALUE	
Societal Goal: To lay down the foundation for inclusive growth, a high-trust and resilient society, and a globally-competitive knowledge economy			
Intermediate Outcome: Inequality in economic opportunities reduced			
Sector Outcome 1: Economic opportunities in AFF expanded			
Growth of GVA in Agriculture, Forestry, and Fisheries Increased (year-on-year at constant 2000 prices, in percent)	2016	-9.5%	4.5%-5.0%
PRODUCTION GROWTH			
a. Crops	2015	0.3%	1.0%-2.0%
Rice	2015	-5.36%	1.0%-2.0%
Corn	2015	4.0%	4.0%-5.0%
HVCC	2015	0.91%	1.0%-2.0%
a. Livestock	2015	-1.32%	1.0%-2.0%
Hog	2015	-1.2%	1.0%-2.0%
Carabao	2015	-11.8%	1.0%-2.0%
Cattle	2015	7.1%	7.0%-8.0%
Goat	2015	-3.8%	1.0%-2.0%
a. Poultry	2015	-1.7%	1.0%-2.0%
Chicken	2015	-1.72%	1.0%-2.0%
Duck	2015	-1.6	1.0%-2.0%
Growth in Value of Production of Fisheries Increased (year-on-year at constant 2000 prices, in percent)	2016	-20.9	2.0%-3.0%
PRODUCTION GROWTH			
a. Commercial	2016	4%	6.0%
b. Municipal	2016	-1.0%	1.0%
c. Aquaculture	2016	12%	15.0%
Sector Outcome B: Access to economic opportunities by small farmers and fisher folks Increased			
Growth in Labor Productivity of Farmers and Fisherfolks Increased (year-on-year at constant 2000 prices, in percent)	2015	0.3%	1.0%-2.0%

Source of data: PSA XII